An address delivered before the Association of American Agric. Colleges and Experiment Stations Washington D.C. Nov. 16, 1910 by President Americus James R. Patterson State University of Kentucky

A RETROSPECT.

Mr. President, members of the Association of Agricultural Colleges and Experiment Stations, ladies and gentlemen:

I thank Dr. Thompson, Chairman of the Executive Committee, for the kind invitation which he has given me to occupy a part of the unallotted hour of the program and for the broad discretionary margin which he has kindly allowed me. I think that perhaps I cannot do better than to give you some of my personal recollections of the movement of events within the last fifty years, covering a period of unprecedented activity in every relation of life.

When we look back over the years covered by a lifetime, it is difficult to realize the extent and character of the transition. My recollections go back with tolerable distinctness to 1842. Andrew Jackson was still alive and the signal triumph of New Orleans was still fresh in the

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memory of those who had followed their redoubtable leader and with him achieved a notable victory. Webster and Clay and Calhoun were still living and the forensic triumphs of this mighty trio lingered upon the lips of all the thinking and reading men and women of the Republic. The differences with Mexico, which resulted in the annexation of Texas, had not yet come within the sphere of practical politics, and the heroism which covered with glory the American flag upon the fields of Buena Vista, Cherubusco and Chepultapec had not yet been added to her triumphs by land and sea.

On the other side, the Iron Duke, the victor of Waterloo, was still living, and Gladstone and Disraeli had entered the arena of the House of Commons and had given promise of the mighty influence which they were destined to wield upon their respective followers.

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Sir Robert Peel, leader of the House, was maturing, but had not yet perfected his measure for the repeal of the Corn Laws and the establishment of free trade within the British Empire. Darwin and Huxley and Tyndal and Alfred Russell Wallace had scarcely been heard of, and though Thomas Arnold had passed away from the scene of his scholastic triumphs, his influence was still potent in moulding the morals and developing the intellect and shaping the destinies of the kingdom, nor had the disastrous campaign of Cabool annihilated a British army in the defiles of the Kyber pass. And the veteran Marquis of Dalhousie had not yet rounded off the British Empire in India by the annexation of the Punjab.

Indefatigable discoverers had been experimenting with anaesthetics, but antiseptic surgery had not yet come into being. Pasteur and Koch and Lister were still in their

swaddling clothes. Chemistry and physics and astronomical science and geology and biology were all still in their infancy, and coupled with a liberal course in mathematics, in metaphysics and in ancient languages, could all still be comprised within the limits of a well-ordered college curriculum. Agriculture too was still in its infancy; scientific agriculture did not then exist. The sickle and the cradle and the flail and the old-fashioned plow held the field and sufficed to meet the necessities of the agriculturist of the day. Steamship navigation had not been introduced upon the Atlantic, but was still in its infancy. The railways of the United States covered less than one-thousand miles, less than fifty of which were west of the Alleghenies. The anti-slavery agitation, which culminated in the terrible

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Civil War of '61-'65, was intensely sympathetic, vehement and aggressive, stimulating and fostering the antagonism of the slave-holder and laying the foundation of the gigantic contest which rent the nation in sunder for four years, deluged a large section of the country with blood and created the enormous debt, the effects of which we still feel today.

Visions of rifle guns and iron-clad men of war had been floating in the brains of artillerists and naval architects for years, but had not gone beyond the merely rudimentary, experimental stage. The ideas of prolific inventors were crystallizing into definite shape, to find a realization later in the huge cannon and armor-clad battleships and cruisers.

But if, meanwhile, before the outbreak of the Civil

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War, Jackson and Clay and Calhoun and Webster, Wellington and Peel, Blucher and Stein, had passed over to the majority, Lincoln and Grant and Lee, Kitchener and Gladstone and Salisbury, Victor Emanuel and Cavour, Von Moltke and Bismarck were ready to succeed them and to maintain undimmed the lustre and the dignity and the prestige which their respective nationalities had already won.

These preliminary remarks may serve as an introduction to the mighty epoch embraced within the last fifty years. At the conclusion of the Mexican War, the treaty of Guadaloupe-Hidalgo gave the United States the rich gold and silver-bearing commonwealths of the Pacific coast. The discovery of gold in California in 1849 stimulated travel and traffic in that direction. Thousands of pioneers traversed the weary and interminable plains west of the Mississippi

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and ~~after~~ enduring untold privations, reached the goal of their wishes and of their destiny, after months of exposure to climatic conditions of cold and heat, sunshine and tempest, in plains and deserts never before trodden by the white.

These conditions created a demand for greater facilities for travel and transportation than had existed heretofore. Lines of railway had multiplied rapidly in the states east of the Mississippi and north of the Ohio, and as early as 1850, the journey could be made from Cincinnati to New York in thirty-six hours, but up until this time the conception had not dawned upon the most adventurous capitalists and speculators to connect the Pacific and Atlantic coasts by all-rail communication. In the late '50's, however, during the Kansas-Nebraska agitation, when settlers were throng-

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ing into these states to obtain lands by pre-emption and settlement, the demand for more rapid transportation quickly grew, and the practicability of connecting the Mississippi with the states upon the Pacific was brought within the range of practical finance. The out-break of the Civil War accelerated the impulse and ere its close rapid progress had been made in connecting the distant and outlying commonwealths of the west with the great middle and eastern states. Corresponding advances meanwhile had been made in steamship navigation and ere the close of the Civil War, iron-built vessels propelled by steam were rapidly displacing the wooden ships which had held the mastery of the seas from time immemorial.

In the early '40's, telegraphic communication had been established and long before 1860 telegraphic lines were

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in use all over continental Europe and all over the greater number of the states of the Union, bringing into immediate contiguity the larger cities and towns and all the more important villages upon the great railway lines. These arteries of communication, railway and telegraphic, inspired the nation with new ideas and created new hopes and new efforts to realize them. As early as 1858, the first Atlantic cable was laid, but unfortunately, after the transmission of the first message from the President of the United States to the Queen of England: "America and England united. Peace on earth good will toward men", it broke in mid-ocean. Successful communication by sub-marine telegraph did not become an accomplished fact until 1865, when a new cable was laid and the old one repaired.

For this great triumph of electrical engineering skill, the

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world owes a debt of gratitude to two men, Cyrus W. Field of America and Thomas Brassey of England. These two patriots contributed largely of their means upon a venture which many regarded as reckless, and certain to end in financial disaster, but undeterred by the adverse conditions which confronted them they bent their energies more readily to the task and by means of the Atlantic cable united in indissoluble bonds the mother country and the great republic of the west. During the crisis of its fate, Cyrus W. Field and Thomas Brassey and others held a conference in London. Field had exhausted the bulk of his fortune in the venture. The others stood aghast at the additional heavy drain upon their resources. Stout old Thomas Brassey who had already contributed more than two fortunes, as fortunes were measures by the standard of that day, said: "I have already

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advanced more money to this enterprise than I originally anticipated. I may lose all of it, but I am willing to risk an additional £60,000 upon the success or failure of the enterprise." The confidence rose, and in less than a year the Atlantic cable was successfully laid. I remember well the thrill of pleasure with which I read an account of this stupendous achievement.

The telephone came later; not until 1877 was the Bell telephone brought into use, somewhat immature in its construction and defective in its operation, but containing the beginning of mightier things yet to be. After the lapse of thirty years or more, the telephone finds a place in almost every well-todo household, ministering to the comfort and to the convenience of the private home, as well as being the indispensable adjunct of every executive office, political,

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industrial and commercial throughout the length and breadth of the land.

The close of the Civil War left the victorious republic exhausted and the south prostrated and bankrupt, but with the energy characteristic of the race, all set themselves to work to re-build their ruined walls, to re-establish agriculture and commerce and in less than twenty years, the phoenix rose from its ashes in richer plumage and with statelier stride than before the great calamity of '61-'65. The belligerents had, during that fearful conflict, brought armies into the field and maintained them on a colossal scale never before equalled. They had covered spaces and distances with strategic movements upon a larger scale than had ever been attempted by Caesar or Napoleon. They had fought battles and won victories with

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a larger expenditure of blood and of treasure than ever before in the history of the race. But although the Civil War at its conclusion left a heritage of bitterness and of hate for years thereafter, a new generation arose which knew little of the perils and sacrifices involved and who learned of the deeds of their fathers upon the fields of fratricidal strife as they had learned of the struggles of the Revolution and the War of 1812. And today, happily the wounds are all healed, the scars obliterated, alienation and passion and revenge are re-placed by fraternal union, patriotic co-operation and interchange of civilities and courtesies and affection, gratifying in an eminent degree to all who love their country. At last, after the lapse of fifty years, we can say, as John Tyndal said of the British Empire twenty-five years ago: "Thank God we are again a united people."

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Within this era of rejuvenated activity, science and its practical application to the useful arts has developed and gone forward by leaps and bounds. By the new impulse given to biological study and biological research, stimulated by the far-reaching investigations of Darwin and Wallace and Huxley and Spencer, the theory of evolution has been placed upon a firm foundation, and has become a practical working leverage for advanced movement in every direction, finding an application and an interpretation in realms of discovery which no one could have anticipated fifty years ago. I remember the advent of "The Origin of Species", and the surprise, the incredulity, the apprehension and the spasmodic repugnance with which it was received by the clergy, the moralists, the expenents of philosophical systems and the interpreters of

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scientific thought. By the more advanced thinkers of the age, it was hailed as a new luminary suddenly shot up from the horizon and shedding its baleful or its beneficent rays upon the dominant thought and accepted theories, theological and metaphysical, of the time.

When from the present vantage ground we look back we can scarcely understand how profoundly the attitude of thought and of speculation, of accepted theory and well-reasoned scientific conclusions have adjusted themselves to the new interpretation of nature and of life. Theology no longer dreads but welcomes the hypotheses of Darwin and of his fellow-workers. Moral speculation accepts it as the key of rational interpretation, and every branch of natural science finds in it a firm pedestal upon which to stand. Extravagances there have

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been affiliated with it, which Mr. Darwin himself would have been the first to repudiate. Conclusions from ill-defined and and hastily accepted /premises have by illicit process been deduced from it, but these have been dissipated and have disappeared. The dross has been purged and the gold remains.

At the beginning of this era, when the foundations of accurate thinking and legitimate speculation were laid, the dawn of agricultural education began. To Michigan belongs the honor of the establishment of the first school for scientific and experimental agriculture on the western continent. Five years before the passage of the Morrill Act of 1862, the Legislature of Michigan had provided for the establishment of an agricultural school, which became the leader and the pioneer of agricultural education in America. In 1862, the conditions

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were ripe for a new departure. Justin S. Morrill of Vermont - although the Civil War was in progress, absorbing the thought and absorbing the treasure of the nation - this great statesman conceived the idea of dedicating forever to agricultural and mechanical education a part of the rapidly diminishing area of public lands belonging to the nation. Allotments were made to the several states in the union including those in rebellion of large bodies of public lands in proportion to population, for the endowment of colleges and universities for the education of the masses.

The Act of 1862 provided that the income from these lands should constitute a perpetual fund, the capital of which shall remain forever undiminished and the interest of which shall be inviolably appropriated by each state which may take

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and claim the benefits of this Act, to the endowment, support and maintenance of at least one college, where the leading object shall be, without excluding other scientific and classical studies and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic acts, in such manner as the Legislatures of the states may respectively prescribe, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions of life." Upon this foundation have been established more than fifty institutions of learning, the beneficent results of which the people of the United States enjoy today. In most of the states accepting and appropriating the national land grant, universities have been established, of which colleges of agriculture and colleges of mechanic

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arts form an integral part. These institutions, availing themselves of the latitude allowed in the organic act, have for the most part made ample provision for other scientific and classical studies.

The conception of Senator Morrill and his co-workers was a large and comprehensive one, and in its development larger and more comprehensive than he or they could at that time have anticipated. No serious effort was made by any of the states to vitalize the scheme and establish the colleges provided for under the act until after the close of the war. Then the scrip was issued by the Government and given to the states, to work out the problems involved as best they could. The conceptions of what an agricultural college ought to embrace and what it ought to be were vague and nebulous in the extreme. Why expend money to teach farmers' sons how to sow and plow and reap, to

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groom horses and drive wagons, to milk cows and rear calves? The farmers' son could learn these things better on his father's farm." As for book-farming, the older agriculturists treated it with contempt and would none of it. If with these purely rural subjects should be associated other liberal studies, language, mathematics and belles-lettres, they were more likely to be drawn away from the farm than attracted to it. Moreover, there were relatively few instructors available for imparting to their pupils a knowledge of the aciences related to agriculture and the mechanic arts and making practical application thereof. Chemists and physicists there were - comparatively few, however - but the chemical and physical formulae of that time had found an application different from and wholly alien to the subjects embraced in the new education. The agriculturist of 1860 would have treated with contempt, if he had understood

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its phraseology, the fertilization of fields and the growth of crops by chemical formulae, the feeding of stock by biological rations, the destruction of noxious insects by the artificial propagation of entomological parasites and the elimination of disease by the injection of toxic remedies. The old established universities and colleges looked askance upon the new intruders into their prescriptive domain. "A waste of public lands and of private fortunes", the "dreams of amiable but visionary enthusiasts", "another illustration of the folly of attempting to make a purse out of a sow's ear", a "foolish effort to substitute an imitation and a counterfeit article for the genuine coin and currency of the realm", a "doctrinaire experiment that would end in failure", a "project analogous to the fantastic device to extract gold from sea water" - such were the comments and such the sceptical similitudes upon the lips of the learned,

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armor and to repair their own defenses. In the laboratories of the agricultural college, chemistry and biology and physics took on a new expansion and a new significance. The teachers in the new learning taught the teachers of the old. In order to hold their own and prevent their being elbowed out of court, the older institutions found themselves compelled to improve and enlarge their spheres of scientific study, to create new laboratories and place in them men abreast of the discoveries which workers in the new field had made. Who for the most part are the ranking chemists and biologists and physicists of today? Not, certainly, the exponents and expositors of these subjects in the old colleges and universities, but the active, energetic bands of enthusiastic workers and discoverers in the new.

No radical change is the growth of a day or a month

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but the builders, though they experimented often unsuccessfully and failed sometimes egregiously, gradually found a light to emerge from the darkness, gradually got out of the bogs and quicksands upon firmer ground, until at last they had learned well the lesson taught by Wordsworth more than half a century before:

"To the solid ground of nature
"Trusts the mind that builds for aye."

When observation and experiment were substituted for the haphazard rule of thumb, progress began to be made and to move rapidly forward. The foundations of scientific agriculture were laid and results obtained which could not be gainsaid. Then it was time for those who had regarded the advent of the new learning with contempt to explain, to look to their own

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or a year. Agricultural colleges and scientific agriculture are no exception to this rule. First the embryonic stage, then the struggle for existence, then full-fledged maturity, then continuous growth and symmetrical expansion; first the seed, then the plant, then the ear, and at length the full corn in the ear. Scientific agriculture has emerged from the chrysalis stage and the graduate in the four-years course therein may stand upon an equal pedestal and claim an equality with the scholar who has won honors in the liberal arts or in pure science. And what have been the results? Agricultural processes have been improved and agriculture cheapened, increased returns and improved quality in the cereals, in sugars and in cottons in all the manifold and varied products of the soil; improved livestock reared under economic conditions; with intelligent breeding for definite results; waste lands brought under culti-

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vation; deserts made fruitful through irrigation and exhausted fields reclaimed and made productive; the farm and the orchard and the garden; flocks and herds, the cattle upon a thousand hills, all unite in testifying to the beneficent results of the new education.

The agricultural colleges and the universities of which many of them form a part have long since vindicated their right to live. Incomes from the invested proceeds of the sale of the public lands have been supplemented by the states. Thousands have grown into tens of thousands and tens of thousands have gfown into millions. Witness the colossal revenues of Cornell and Californis, of Wisconsin and Illinois, of Minnesota and Ohio and Missouri. In many instances they have surpassed the revenues of older institutions, hoary with

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age and glorying in the distinction and the results achieved by their sons. Year by year they are lengthening their cords and strengthening their stakes; the mighty commonwealths in whose up-building they are potent factors, recognize their obligation to them and open their vaults ungrudgingly to supply their necessities. Resources counted by millions and matriculates reckoned by thousands bear witness to the incomparable work they do and to its far-reaching consequences to their states and to the nation.

In 1887 an important addition was made to the agricultural college by the creation of a department called the Experiment Station, and its liberal endowment by Congress. The work of the Station supplements the theoretical instruction of the class-room by a practical application of the knowledge thus acquired to the solution of agricultural problems through

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observation and original research. Valuable discoveries are made every year by the diligent, intelligent and patient workers of the Experiment Station and made available to the agriculturist . An intelligent rural proprietary has through their agency been created and millions upon millions have been added annually to the realized wealth of the country at large.

But these results have not been achieved without labor, anxiety and toil. What is reaped in joy has often been sown in tears; all have had their days of gloom and of trial; some have come from the depths through great tribulation. Of these latter the University which I have the honor to represent today is one. Its early history was in no metaphorical sense a struggle for existence. Its present site is a gift of the city of Lexington, its original buildings were erected from

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funds which after much effort I induced the city and county to contribute, and a tract of land was rented at the outset for experimental farming. In 1880, after weeks and months of continuous effort against great odds, I induced the Legislature of Kentucky to give to the institution annually the proceeds of a tax of one-twentieth of a mill, in order to supplement the inadequate income derived from the federal grant of 1862. Two years thereafter the denominational colleges of the state, six in number, made a united effort to procure a repeal of the tax. Baptist and Methodist, Presbyterian and Christian, stood in solid phalanx behind them. I fought this potent combination single-handed and alone. I fought them in the Legislature, in the courts, and advanced the money necessary to carry on the work of the institution while the contest was pending, and when it seemed toppling to its fall. Hoping against hope,

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I triumphed at last all along the line, on the hustings, before the legislature and in the courts. During the twenty years following, I educated the people of Kentucky to a recognition of the University in the new constitution and the adoption of the principle that the state may expend money on higher education, as well as on the common schools. When I look back, I wonder that I was not worn out by the contest, but through the goodness of God, I lived to accomplish my work and to feel, in no spirit of exultation or vindictiveness, of the men with whom I was forced to grapple in mortal conflict:

"Dead and buried had they seen me,
"So the ready tale they spread,
"But I lived to see the tellers
"Buried all themselves and dead."

And now, after forty-five years of service, during forty of which I was President, I have retired from active

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service in the State University of Kentucky. I leave the institution with fifty acres of ground, covered with buildings, ample equipment, excellent courses of study, 250 acres of blue grass land, worth $500. per acre, a respectable staff of instructors and investigators, and an income, not large as measured by that of some of its sister universities, but adequate to our p resent necessities, with an educated public opinion for its support and a legislature showing a commendable liberality in its maintenance. ~~My earnest and~~ only request in laying down the burden of administration was that a man abler than I of eminent ability, ~~university training and wide experience in educational affairs, incorruptible integrity and of national reputation should succeed me, a man whose attainments would be a beacon light to the university and whose character would be an inspiration to all the students committed to his guidance, a~~

~~man who could build wisely and well on the foundations already securely laid~~. I have neither son nor daughter to inherit what I may leave behind me; those born to me passed over to the majority long years ago. Should my hopes be realized, I shall make the university my heir, but I am reminded that though a man devise his ways, his steps are controlled by an unseen and inscrutable power, which we are constrained to believe works for righteousness.

This association will ere long celebrate the semi-centennial of American agricultural colleges. You will celebrate one of the most stupendous facts in the history of America, and of the world, a fact contemporaneous with an unexampled era of industrial and intellectual progress, with a gratifying recognition of the kinship of the great republic to the mother country and through them with the dawn of the

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age of peace upon earth, good will toward men. Let the celebration of this jubilee be upon a scale commensurate with the importance of the occasion.

On motion of Hon. T. D. Boyd of Louisiana a vote of thanks was tendered to the speaker for his address.

On motion a recess was taken until 8 P.M.

I am aware that the subject alloted to me in opening this series of lectures is from its nature dry and uninteresting. Facts and dates, oftentimes disconnected and apparently unrelated, are not readily wrought into a fabric imposing and symmetrical. I console myself, however, with the thought that what I shall say may form a suitable introduction to the more interesting subjects of discussion which are to follow.

Many ages preceeding the advent of our era, there lived a people in the intervening stretch of country between the Caspian Sea and the Himalayas, known to modern students of prehistoric ethnology as the Aryan race. This people, at a very early period, passed out of the primitive stage. They were no longer savages gathering a scanty subsistence from the spontaneous gifts of nature. Before the migratory movements made necessary by the increasing population had begun they had passed into the pastoral stage, and some of them into the agricultural. They tended their flocks, cultivated to some extent the soil, had made some attainments in the primitive occupations which supply comforts and multiply the means of subsistence, and had made some progress in social organization. It is from the latter point of view that I propose to consider a branch of the great ethnic movement which began some centuries before the Christian era.

"The first great exodus from the Central Asiatic home of the Aryan stock took place not less than 2,000 years before the birth of Christ. Those who composed the movement passed slowly through the passes of the Himalayas, occupied the region of the five rivers, drifting down the valley of the Ganges, uprooting, exterminating, subduing or absorbing the aboriginal races whom they found in their way. Within a few centuries they developed a civilization of a high order, a language the most perfect ever spoken or written, and left to their decendants a literature vast and varied, far surpassing in extent all the extant literature of the pre-Christian times.

"The next migratory wave which left the original home some centuries after the migration of the Sanscrit-speaking people, was the Keltic, subdividing as it swept westward into two great branches, the Gael and the Cymry. These in time occupied all Central and Western Europe, dispossessing and uprooting the aboriginal inhabitants whom they found possessed of the soil; less

advanced than themselves and ~~less~~ in capable of making an effectual resistance ~~than they~~. The Celts also developed a considerable degree of civilization, but their literature, if the scanty fragments which still survive can be so called, was meagre and unimportant. Their religion and worship retained traces of an original affinity with those of the Hindoo and Iranian, but neither in civilization nor religion did they attain the high level of their kindred in the South and Southwest of Asia.

"The next great migratory wave, and the one which for the present concerns us most, was the Teutonic, which left its original home much later, moving westward, driving the Celts before them or exterminating or subduing or incorporating them as the Celts had done the original occupants whom they found in their pathway. Over a century before Christ, in conjunction with a body of Celts called Cimbri, whom they took into temporary partnership with them, they appeared on the confines of the Roman Republic, cut to pieces two or three consular armies and struck Rome with terror and alarm such as had not been felt since Hannibal overwhelmed the Roman legions on the fatal field of Cannae. More than a century later the decendants of these rude warriors, under Arminius, annihilated the flower of the Roman armies in the Teutoberg forest and wrung from the greatest of Emperors the passionate lament, 'Varus, give me back my legions.' A century later, Tacitus, the most philosophic and most discriminating of all historians except Thucydides, thus describes our race—for from these loins are we sprung— inasmuch as our immediate ancestors, the Angles and Saxons are a branch of the great Teutonic ~~race~~ stock:

"'They choose their kings on account of their nobility, their leaders on account of their valor, nor have their kings an unbounded or arbitrary power, and their leaders rule by their example, rather than by the right of command. If they are ready, if they are prominent, if they are forward in leading the van, they hold the first place of honor. On smaller matters the chiefs debate, on greater matters all men, but so that those things whose final decision rests with the whole people are first handled by the chiefs. The multitude sits around in such order as it thinks good. Silence is proclaimed by the priests, who have also the right of enforcing it. Presently the king, or the chief, according to the age of each, according to his birth, according to his glory in war or in eloquence, is listened to, speaking rather

rather by the influence of persuasion than by the power of commanding. If their opinions give offense, they are thrust aside with a shout. If they are approved, the warriors clash their spears. It is held to be the most honorable kind of applause to use their weapons to signify approval. It is lawful, also in the assembly to bring matters for trial and to bring charges of capital crimes. In the same assembly chiefs are chosen to administer justice throughout the district and villages. Each chief in doing so has a hundred companions assigned to him as at once his counsellors and his authority; moreover, they do no matter of business, public or private, except in arms."

"Here we have a picture of a free commonwealth of warriors, in which each free man has his place, where the vote of the general assembly is final; where hereditary descent and elective office co-exist and are equally esteemed. Here is implied the existence of inferior local assemblies, local magistrates. In this picture we have the germs of the Anglo-Saxon institutions which grew up later, but which existed in embryo among the Angles and Saxons ere yet they ~~were~~ had left their homes along the banks of the Elbe and the Weser to try their fortunes in Britain beyond the seas. Here we see the ground work of parliament composed of Kings, Lords and Commons, when all get together on the open plain, instead of within the four walls of state house or abbey. Here we see the beginning of executive, legislative and judicial functions, all in accordance with immemorial custom, unwritten law transmitted from father to son, from generation to generation; embodying all the authority and sanctity of written law, because grown up with their growth, moulding and becoming an integral part of their social and political existence.' This immemorial constitution was the constitution of our forefathers before their migration began, was their constitution among the forests and in the defiles of Germany, was their constitution on the shores of the North sea and was their constitution when they crossed the German ocean and settled within the four shores of Britain, and is still their constitution in this newer Britain, in this mightier England on the Western Hemisphere. The acorn is not the oak, but it is the germ without which the oak would not be; the child is not the man, but in it are contained all the potential energies, all the mighty intellectual forces which in a Paul, a Newton, a Wellington and a Washington make history and transform and uplift mankind.

"In the Canton of Uri, one of the original Cantons of Switzerland assemblies

such as that described by Tacitus are held to this day in May of each year, convened under almost identical conditions and for identical purposes, the only example extant of a pure democracy, among whom the principle of representation has not yet been introduced, where each freeman appears under arms in person and participates in the functions of government- legislative, executive and judicial.

"Transplanted to the shores of Britain, long after the Roman legions had abandoned it, the Anglos and Saxons were free to work out their own destiny uninfluenced by the traditions of Rome. Neither the language nor the literature nor the jurisprudence of the conquerors of the world affected our Teutonic forefathers in their policy. It remains essentially Teutonic to this day.

"In their civil and political developement the same order is observed throughout all the Aryan races. The elementary group is the family, the aggregation of families forms the gens or house, the aggregation of gentes forms the tribe, the aggregation of tribes forms the commonwealth or nation. Our Teutonic forefathers believed that they all had a common descent, that tribes and houses and families all had a common lineage from hero, demi-god or god, and hence that all were akin, that all had common rights in a common heritage.

"The king or chief, the Eorldorman or Reeve or Hundred-Man were all only primus inter pares, first among their equals.

"From the seventh to the eleventh century, the political organization of the Anglos and Saxons was, according to Bishop Stubbs, about as follows:

"The township consisting of a cluster of families is the unit united by the responsibility of kinship under the authority of an executive, judicial and fiscal officer called the reeve, who, with four companions, represent the township in the hundred or folkmoot. A cluster of townships forms the hundred, its presiding officer the hundred-man, with duties somewhat analagous to those of the reeve. He is sometimes elected, sometimes appointed. With a body of assistants, he represents the hundred in the Shiremoot, a body of both legislative and judicial power. An aggregation of hundreds makes the shire, whose officers, alderman, sheriff and bishop do its executive, judicial and legislative work. Lastly, the union of shires forms the kingdom, whose council is the Witenagamot. This body consists of eorldermen and bishops, and the kings thanes. The Witan has the right of electing

and deposing kings, and in conjunction with the king, of nominating earldermen and bishops, imposing taxes, voting supplies, enforcing decrees, making laws and sitting as a high court of justice. The body of the common law transmitted orally forms the basis of administration. The king is the head of the race, its chosen representative, its leader in time of war, its guardian in time of peace; president of its assembly and responsible to its people. He is limited ~~in~~ the exercise of his authority by a council of free advisers, is bound by oath to govern well, and his people are reciprocally bound by oath to loyalty and obedience.

"Many of the Saxon kings had added materially to the body of the laws. Ina, Offa, Alfred, and Edward were among those who thus became famous. But their laws, when reduced to writing, did not profess to give their people anything new, but to put into permanent shape and give official form and sanction to the immemorial customs which had been the heritage of the people for centuries, to apply old and universally used principles to ~~the~~ new exigencies as they arose. It was no haphazard series of decrees, rescripts and proclamations, arrogating the authority of law, but each new piece of legislation was evolved out of the old customs and unwritten law, a growth, a development, but not a new creation. This was the condition of things when William of Normandy defeated Harold at Hastings and claimed to reign in his stead. William did not assume to reign by conquest, but submitted his claims to an assembled body of freemen, by whom he was acclaimed rightful king instead of Harold. He retained as far as possible the old organization, swearing to maintain and execute the laws of his predecessors. But the necessity of providing lands out of the public domain for his numerous followers and the changes consequent upon the frequent rebellions and insurrections with which he had to cope, materially modified his attitude to his new subjects. Offices hitherto filled by Englishmen were now given to Normans, and the feudal baronage, from the highest to the lowest, were all compelled to swear allegiance, not to an intermediate overlord, but to the king. No great fiefs were created as on the continent, and the lands allotted to ~~the~~ individuals were scattered over the kingdom in such a way as to make united organization under a disaffected vassal difficult if not impossible. The more important vassals of the crown, with the bishops and abbots, now composed the great council which took the place of the Witan under the former

kings. But through a modification of the old, he is king of the nation as were his predecessors, his council is the Witenagemot of the nation and the laws by which he rules are the laws which his people have claimed from him as their own, and independently of the feudal machinery introduced by him, the people are so bound to him by oath, and he to them by his coronation oath and charter of liberties.

"William, though a man of great executive ability, soon found that, alone, he was unequal to the task of government in all its manifold relations. With the assistance of his council he made laws, and supervised the collection and expenditure of revenues, but to attend to all the other functions of government was beyond the capacity of any one man. He, therefore, appointed a minister who would stand to him in the whole kingdom in the same relation in which the sheriff did in each shire. This person, called the Justiciar, was the king's deputy in all matters and the supreme administrator in law and finances. The Justiciar had a staff of assistants, the chief of whom bore the title of Chancellor. This staff, formed from the chief vassals of the crown, consisted of those most learned in the law and most efficient in its administration. The body so selected was called the Curia Regis. When it sat to consider questions of finance it was called the Court of Excheuquer. Its members in their collective capacity, were called justices, their head being Chief Justice. This was the germ of the entire judicial system. Out of this were developed in time, besides the Court of Excheuquer, the Court of King's Bench and of Common Pleas. When any of these courts rendered deliverances unsatisfactory to either of the litigants, an appeal was made to the king in council. This was the original of the judicial functions of the Lord Chancellor, of the judicial body of the Privy Council and of the Appellate jurisdiction of the House of Lords.

"Another phase in the administration of justice is the jury system, which grew out of conflicting claims to estates. The person whose title was impugnated might challenge the adverse claimant to mortal combat, or he might submit the cause in controversy to twelve men, called recognitors, who were appointed by four knights of the Shire selected by the sheriff acting under a royal writ. By the assize of Clarendon a like principle is applied to criminal jurisdiction. Twelve men of each hundred, with four lawful men from each township, were sworn to present criminals from their district in each county

court. From this arrangement the Grand Jury was evolved. A special application of the jury system under Henry II., grandson of the conqueror, laid the foundation of taxation and representation. Disputes had arisen as to the taxable value of freeholds and chattels. Henry directed the liability of each man to be estimated by a sworn body of knights of lawful men of the venue. A writ issued by John in the 15th year of his reign directed the sheriff to select four discreet men from each shire 'for deliberation with us,' so goes the writ, 'concerning the affairs of our kingdom.' This was an extension of the usage introduced by Henry II., and in 1254 under Henry III. two knights from each shire were summoned to parliament, and upon the report made by these knights the amount of the tax was determined.

"Arbitrary and unscrupulous kings like John, and weak ones like Henry III., did not hesitate oftentimes to ignore the unwritten law, which formed the basis of groundwork of legislation by the great Council ~~of~~ or Parliament of the realm. Exactions were levied upon the great barons and upon the lesser barons with no means of redress.

"Fundamental usages and recent charters were alike ignored. The money derived from the commutation of feudal services ~~were~~ was often applied by unscrupulous monarchs to procure the means of oppressing their subjects. When these oppressions and exactions passed beyond the bounds of endurance, all classes made common cause to bring the arbitrary king to terms. In this way it happened oftentimes that under the worst kings the greatest advances were made in strengthening and consolidating the freedom of the nation.

"During the reign of John and his son Henry these irregularities became so odious that all classes were ready to rise in vindication of their ancient liberties. The revenues of the crown were lavished and wasted upon the throng of foreign favorites, who flocked to the royal courts, or consumed in enterprises useless and fruitless, enterprises bringing neither reputation or profit to king or people.

"An arbitrary invasion of John of the privilages of the church afforded the opportunity of which his outraged subjects were not slow to take advantage.

"On the death of the Archbishop of Canterbury in 1205, the junior monks of Christ Church met clandestinely and elected Reginald, their sub-prior, his successor. John, displeased with their temerity, required the chapter to elect John de Grey Bishop of Norwich. The Pope refused to ratify either choice

and compelled the monks, under pain of excommunication, to choose Stephen Langton, a name ever memorable in the annals of English freedom. John vented his rage upon the monks of Christ Church for consenting to Langton's appointment, expelled them from the convent and took possession of their revenues, whereupon Pope Innocent III. placed the kingdom under an interdict. John retaliated by seizing the property of the clergy who obeyed the interdict. Innocent replied by issuing a bull of excommunication, absolved his subjects from their allegiance and called upon Philip of France to carry out the sentence of deposition. John made his submission and agreed to hold his kingdom upon the payment of 1,000 marks a year as the vassal of the holy see. Smarting under his humiliation, he crossed over into France to avenge himself upon Philip, by whom he and his allies was signally defeated at the battle of Bovines, and returned in disgrace to England. He had provoked the barons by his exactions, enraged the clergy by his invasions of their privileges, alienated the rising power of the towns by his impositions and incurred the contempt of all classes by his wanton profligacy. An unusual levy on the barons without the consent of his parliament roused a fierce spirit of opposition, and determined them to seek redress of grievances. They found in Stephen Langton an able and willing ally. In a meeting at St.Paul's he showed the barons a copy of the charter of Henry I., which he had found in a monastery. At a subsequent meeting the barons swore to obtain from the king a new charter confirming the ancient liberties of England.

"Both sides prepared for war. London, always on the side of freedom, opened its gates to the insurgents. John consented to a conference near the field of Runnymede, and finding himself powerless to resist, at last signed Magna Charta, the great charter of English liberty and of the English speaking race throughout the world.

"Let us look for a moment at some of its provisions:

The liberty of the church is assured.

No tax shall be laid in our kingdom unless by the common council of the realm.

No one shall be compelled to do greater military service than the law requires.

Freemen shall not be subjected for offences to arbitrary fines, but every punishment shall be proportionate to the offence.

No one shall be compelled to labor on the public works except in conformity

with the requirements of the ancient law.

No property shall be appropriated for public use unless paid for.

Just weights and measures shall be used.

No freeman shall be seized or imprisoned, or dispossessed, or outlawed, or exiled, or otherwise destroyed, nor will we pass upon him or send upon him unless by the legal judgment of his peers or by the law of the land. We will deny to no man, we will delay to no man, justice and right.

"In all cases of aid, money for the public service, earls and barons shall be summoned to the great Council, each by a special writ, and all other tenants-in-chief by a summons of the sheriff.

"On this piece of parchment, 683 ~~683~~ 94 years ago were inscribed the liberties of England, signed by the king, the great dignitaries of the church and the representative barons. Herein is guaranteed the privileges of the church, the freedom of the citizen, the rights of property and the omnipotence of parliament. Herein is guaranteed the administration of justice, trial by jury, immunity from arbitrary arrest and from excessive punishment. Herein is guaranteed redress of all wrongs by whomsoever inflicted. Herein, in embryo, is found all that is valuable, all that is sacred in the unwritten constitution of all English speaking people throughout the world. Herein is found, says Hallam, Habeas Corpus. Herein is found the basis of the Petition of Right and the Bill of Rights. All of the legislation of England, unfolding and developing and safeguarding the rights of property, has its roots in Magna Charta. All the legislation of England, unfolding and defining and guaranteeing the liberty of their subjects, has its roots in the same venerable charter.

"And here let it be observed that Magna Charta was not considered as conferring upon the people and guaranteeing to them any new privileges. It reaffirmed and defined in more explicit terms the immunities and franchises set forth in the charter of Henry II., Henry I. and William the Conqueror, and these rested upon and reaffirmed the immemorial privileges of England and recognized by Edward and Alfred and Offa and Ina, the immemorial heritage of the men who brought them into Britain from the shores of the Weser and the banks of the Saale. The seals of the king, the prelates and the barons were attached, and Magna Charta became the law of the land. The stout Englishmen who extorted it, the good swords which maintained it,

Alas!
Their bones are dust,

Their good swords rust, but
Their souls are with the saints, we
trust.

"Their work remains a monument more durable than brass, loftier than the regal structure of the pyramids. Bacon and Newton and Nelson and Wellington, in the old world; Franklin and Washington and Lincoln in the new world, have been possible through Magna Charta. Its influence is today paramount in five continents. On the Thames, the Mississippi and the St.Lawrence its supremacy is unquestioned. It has inspired a sense of manhood in the yeomanry of England, of dignity in the citizens of the great Republic and of courage and self-reliance in the founders of British rule in far-off Hindostan. It has founded commonwealths in Canada and Australia and in South Africa. It has gone forth conquering and to conquer. And the glory of its conquests and the prowess of its achievements, great as these have been, are but the prelude to greater things yet to be. The rights guaranteed to the barons of England by Magna Charta were not for themselves alone. And here I may be allowed to digress a little, to consider the effects of Primogeniture and Entail upon the evolution of English institutions. The oldest sons only succeeded to the titles, estates and privileges of the fathers. The oldest son succeeded his father as duke, marquis, earl, viscount or baron. The younger sons had neither hereditary rank, title nor estate. These then, were relatively much more numerous than the titled nobility, and became the lesser but untitled aristocracy of the realm. The became employes of the crown in the military and civil service, acquired wealth by ~~excommunication~~ commerce or by marriage and settled down as country gentlemen maintaining a close connection with the stratum above them and admitting into their numbers the successful merchants or craftsmen who pushed forward from the ranks below. Thus was formed the substantial middle classes of England. And what the barons wrung from King John the middle classes constrained the barons to concede to them. Thus the middle classese recruited both from above and below, became the conservators of the liberties of England.

"On the continent neither Primogeniture nor Entail obtained. The result was a numerous nobility with small estates on the one hand and a peasantry, a proletariat on the other, with ~~an~~ no intermediate class to form a connecting link between the extremes.

"Not a life was lost in the English revolution of 1688 when James was deposed

by Parliament and William of Orange elected ~~to~~ in his stead. Why? because the distinction of classes, merged by imperceptible graduations one into another, and the great middle class recruited from the ranks of the nobility and from the ranks of the lower strata, made a collision of class and rank impossible.

"In France at the beginning of the French revolution, there was no middle class. ~~There~~ On one side were nobles, proud, imperious, disdainful; so numerous that their small estates, cultivated by a starving peasantry ~~was~~ were rack-rented to provide a ~~substance~~ subsistence for them. Law and custom alike forbade them to engage in trade or in any other useful occupation except the Church and the army. On the other side a hungry, impoverished, ignorant proletariat, exasperated by ages of oppression and misrule. When the revolution came and the lower classes felt their power they exacted from their oppressors in a carnival of blood a fearful expiation for the political and social crimes of centuries.

"One more important stage in the developement of constitutional government remains. Parliament had since the conquest admitted but little of what might be called the popular element into its composition. In theory every freeman was entitled to attend the great council; in practice only the barons and clergy were present. The early Norman kings in their frequent contests with the barons found it expedient to court the favor of the smaller freeholders and feudal tenants in order to form a counterpoise to the might and turbulence of the great tenants of the crown. They likewise encouraged the growth of the towns by granting them special privileges of trade and manufactures. Hitherto serfdom had obtained, most of the serfs being attached to the soil and passing with the estates if they changed ownership. Many of the serfs who escaped from their masters took refuge in the towns, where if they remained unclaimed for a year, they became freemen. The towns depending upon the king for their chartered privileges, were generally found on his side in his contests with the nobility. These towns were called boroughs, their citizenship was limited by certain conditions, expressed in their respective charters, and all their citizens were denominated Burgesses. The privileges of self government and immunities from certain obligations restingupon rural communities varied. These boroughs grew apace in wealth and influence, from both of which considerations they begun to attract the attention of the State.

"John had no sooner signed Magna Charta than he sent a messenger to Rome with a copy, asking the Pope to annul it. This the Pope did on the ground that it had been extorted from his vassal and was therefore derogatory to the

rights of the Holy See. Civil war was again rekindled. John resolved on a last desperate effort to throw off the yoke of the Barons, but his career was cut short by a sudden illness contracted while at the head of the army. His son, Henry, a weak prince and the dupe of unworthy favorites, succeeded him. He confirmed the great Charter under the most solemn sanction, but violated it again and again. Simon de Montfort, a name famous in the parliamentary annals of England, placed himself at the head of the aggrieved nobility and commonalty and defeated the king and his adherents at the battle of Lewes. The Earl had long known the importance of the growing civic element in the political society of his age. His first steps were taken in his efforts to check the oppressions of Henry and his foreign favorites by the help of the Barons. But he soon discovered that he must seek a broader ~~platform~~ foundation on which to stand. In the parliament which he summoned in 1265 there appeared for the first time not the barons only, but knights of the shire and burgesses of the towns, side by side in the great council of the realm. A bold innovation indeed, but one destined to bear ample fruit in later years. The triumph on the field of Lewes was followed soon afterward by the overwhelming defeat of Evesham where Earl Simmon fell a martyr to freedom. During the remainder of Henry's reign things went on in their old way, but soon after the accession of his son Edward First, the innovation made by Earl Simmon was revived and sanctioned. Edward, finding that the introduction of the element added by Earl Simmon greatly assisted him in the matter of supplies, of which he stood in constant need, permanently engrafted the country and borough representation upon parliament. It must not be forgotten, however, that the intention of Edward in summoning the Knights and Burgesses was not for legislation, but for voting supplies. Law making was still the exclusive prerogative of the prelates, earls and barons. But the power of the purse soon brought with it larger privileges. As it was ~~in~~ written their competency to refuse supplies, these were often granted only on condition that grievances should be redressed. Gradually, the assent of the Knights and Burgesses, now collectively known as the Commons, became necessary for the enactment of laws. This was for a time accomplished indirectly through petition, but during the reign of Edward III. the Commons gained ground, and before its close the three essential principles of concurrent authority were established, viz: 'The control of the public purse by the Commons, the concurrence of the two houses in all matters relating to the public weal, and

the right to enquire into all abuses and to impeach public officials.' In the times of Edward II, Edward III, Richard II and Henry IV the authority and influence of the Commons varied. Sometimes it seemed to go back somewhat, and again to recover all that had been lost. But when one period is compared with another it is found that substancial progress had been made. During the Wars of the Roses court was paid to Parliament by the heads of the contending factions. And each of the leaders in turn sought to justify his assumption of authority by parliamentry sanction. In the reign of Henry VI. the commons at last obtained the power of legislative initiative by bills rather than by petition and immunity for responsibility for anything said or done in the chamber during parliamentary proceedings.

"The idea of constitutional government in the time of Edward I. and his immediate successors, and summed up in the legal meaning of the word, parliament, implies four principles which I wish you carefully to note.

"IFirst-The existence of a central assembly, a 'commune concilium regni,' the great assembly of the realm.

"Second-The representation in that assembly of all classes of people, earls, barons, knights of the shire and burgesses of boroughs regularly summoned.

"Third-The reality of the representation of the whole people, secured either by its presence in the council or by the free election of the people who are to represent it or any portion of it.

"Fourth-The assembly so summoned and elected must possess definate powers of taxation, legislation, and general political deliberation.'

"It may be instructive to note the changes in phraseology used in the writs of summons of Parliament.

"In the reign of John the Knights of the Shire are summoned simply 'ad loquendum,' i. e., for speaking.

"In those of Simon de Monfort, 'ad tractandum, consulendum et consentiendum,' i. e., to handle, consult and consent.

"In the writs of Edward I, 1283, the representatives of the towns are summoned 'ad audiendum et faciendum,' i. e., for hearing and doing, listening to the King's pecuniary necessities and voting supplies.

"In 1294 the summons runs as follows, 'ad consulendum et consentiendum, pro se et communitate illa iis quae comites barones et proceres ordinaverint,' i. e., for consulting and assenting, on behalf of themselves and their respective communities, to those things which the earls, barons and nobles aforesaid

have ordained.

"The following year there is still a further advance. The writ now runs, 'ad faciendum,' i. e., for doing. Under Edward II the writ is 'ad consulendum et faciendum,' i. e., for consulting and doing.

"Here is a manifest progression, but the same idea of advance is apparent from the style of the Acts of Parliament.

"After the permanent incorporation of the Commons, the form is in 1318, 'The King, by the assent of the prelates, earls and barons and the commonality of the realm.' Under Edward II the share of the Commons is limited to petition and voting supplies.

"Afterwards the expression is, 'By the assent of the prelates, earls and barons and at the request of the Commons." In the reign of Henry VI the expression occurs, 'The King, by and with the authority of Parliament.' In the reign of Henry VII the mention of petition is dropped and the regular form becomes, 'The King, by the advice of the lords spiritual and temporal and Commons, in Parliament assembled, and by the authority of the same.' From this time on the concurrent power of the Commons is undisputed, possessing equal rights of initiative or forbidding legislation on all subjects whatsoever, and holding the purse strings of the nation.

"One or two incidents will illustrate the independent, not to say defiant, spirit of our forefathers. Shortly after the accession of Edward I commissioners were appointed to enquire into the titles of estates and the value of escheats and forfeitures. When Earl Warrene was required to show his title deed he produced a rusty sword, an heirloom inheireted from his fathers. 'See, my lords, here is my title deed; my ancestors came with ~~Henry~~ William the Bastard and conquered this land with the sword, and with the sword will I defend it.' Some years later, in order to carry on the war for the recovery of one of his hereditary possessions in France, he had seized the treasures of the clergy, who, after a violent struggle, were forced to submit. He had also incurred the displeasure of the nobility by levying forced aids upon them. Edward intended to attack France himself on the side of Flanders and to send an expedition to the southwest to attack her in Guienne. The latter force he intended to place under the command of Humphrey de Bohun, Earl of Hereford, the High Constable, and Roger Bigod, Earl of Norfolk, Earl Marshal of England.

"They refused to go, alleging that their respective offices only required their attendance upon the King's person in the field. A violent altercation ensued. The King in the height of passion exclaimed, addressing himself to the Earl Marshal, 'By God, Sir Earl, you will either go or hang.' 'By God, Sir King,' replied the Earl, 'I will neither go nor hang.' The two immediately, with their retinues, left the King and returned to London, where a Parliament was called to which the recalcitrant earls were summoned. They went with their followers, but refused to enter the city till the gates were were placed in their hands. They required that the Charter be confirmed, that they be pardoned their refusal to obey the King's orders, and that additional securities be provided against the arbitrary exactions of the sovereign.

"Says Dr. Freeman: 'Next to the name of Earl Simon we may honor the name of Edward and the names of the worthies who withstood him. To Roger Bigod of Norfolk and Humphrey de Bohun of Hereford we owe the crowning of the work. The Parliament of England was now wrought into the fulness of its perfect form and the most homely, but not the least important, of its powers fully acknowledged. No tax or gift could the King of England claim at the hands of Englishmen save such as the Lords and Commons of England gave him of their own free will.'

"The germs of King, Lords and Commons had been brought from their old home 800 years before, but from this time forward King, Lords and Commons actually existed with nearly the same powers which they now have. King, Lords and Commons constituted Parliament then and were, within the realm, omnipotent. King, Lords and Commons constitute Parliament still, and are still, within the realm, omnipotent. The power of the Commons has grown until now it is the predominent constituent. But the Parliament of old is the Parliament still. The King no longer takes the initiative in legislation. He reigns, but does not rule, and yet in theory all the prerogatives of sovereignty still attach to him, and all acts of Parliament still run in the name of the King, Lords and Commons.

"The old Earl of Chatham, speaking of Magna Charta, said that he would not give that scrap of barbarous Latin for all the classics of antiquity. The original, with the King's seal, still exists in the British Museum. Well may Englishmen venerate this priceless monument of their freedom. Had Magna Charta never been, an English statesman of the last century could not have

said, 'Every man's house is his castle. It may be only a straw-thatched shed. The winds of heaven may pierce it, and the rains of heaven may drench it, but the King of England cannot enter it.'

"From the drift of this discussion it will be apparent that the English have no written constitution. The immemorial traditions and customs extending back over 2,000 years have formed the groundwork of the charters of the Saxon Kings, of the Norman and Angevin Kings, and of the early Plantagentes. All English legislation relating to the rights of property and the liberty of the subject are based on these, and these collectively form the British constitution. It is not a document, set in hard and fast lines, absolute and complete and inelastic, but its scope and purport and spirit are as well understood by British statesmen as if it were. It cannot be called the work of any day, or year or period. No date can be fixed for its advent into the world. It has grown; it was not made. First the blade, then the ear, then the full corn in the ear.

"But though unwritten and undefined, it is the prolific parent of written constitutions throughout the world. The greatest of these, the American constitution, of which you shall hear more anon, also has its roots in Magna Charta, in Habeas Corpus and the Bill of Rights. The powers of the Executive, the legislative authority of Congress, the functions of the judiciary, the trial by jury, the control of the public purse through representatives freely chosen, the safeguards of human freedom—all are evolved out of the fundamental principles of the British constitution. The charters of the original colonies were based on the British constitution, the written constitutions which succeeded and supplanted them rest on the same foundation.

"Constitutional governmant in its comparative perfection is the heritage of the English-speaking stock, and has made of this stock the dominant factor in the civilization of the world. Great Britain, with her 12,000,000 of square miles and population of 400,000,000, ~~in her splendid isolation~~ is the dominant factor in old world politics, caring for few alliances save with her own kith and kin. But it is reserved for this young giant of the West, mighty in the present, still mightier in the future, with the opportunities for illimitable expansion, boundless in wealth and boundless in power, whose prospective influence none can measure and whose prospective glory none can forecast, to become the greatest of the English-speaking people, and probably the future head of the English-speaking race. What a glorious heritage from our ancestors!

"And yet while we contemplate the present and try to penetrate the future, it is well that we should look back to the source whence comes all that we boast of as our possession, all that the mighty mother and the mighter daughter have inherited from the past. Let us praise the famous men and our fathers that begat us. Let us look to the rock whence we were hewn, and the hole of the pit whence we were digged. Freedom, the old poet says, is a noble thing. It is also an ancient thing, and those who love it now in its more modern garb need never shrink from tracing back its earlier forms to the first days when history has aught to tell us of the oldest life of our fathers.' Surely the student of constitutional history cannot fail to see that this is no facitious developement, no haphazard groth, but that there has been it a divinity shaping its end and leading it to its destiny, that in the words of the old Persian poet,

'Not in vain the nation-strivings,
Nor by chance the current flows.
Error mazed, but truth directed,
To their onward goal they go.'

"Not only is constitutional government the heritage of English-speaking people, but in its highest developement it is their exclusive possession. It is their birthright. It has grown up with them from the earliest records of the race. It is cognate with them, coeval with them and with their ancestors for a hundred generations. There has been no ~~brake~~ break in its groth and developement, no break in its continuity. Abnormal developements here and there, not of permanent value, have not survived, but have perished. In its fulness, in its integrity, in its comparative perfection it lives today, vigorous, still growing, still supplying new adaptions to new emergencies. This is the exclusive heritage of England and her colonies, and of America with her sisterhood of free and independent Commonwealths.

"But it may be said other nations than we, France, Germany, Austria, Italy, Spain, not to mention the lesser kingdoms and the Spanish-American Republics, also possess constitutional government. True, but what is their constitution? I believe it an established canon that no imitative school of painting, or sculpture, or poetry or literature of any kind attains, or can attain, the highest excellence. The best that can be said of its products is that it is a clever imitation. An exotic never flourishes under an alien sky unless artificial conditions, more or less precarious, are supplied.

Now constitutionalism is not native to the soil of any of those nations possessing so-called constitutions. It is at best an exotic. After the lapse of ages it may become naturalized and flourish, but it is now at best a foreign element domiciled, but neither naturalized nor domesticated. It is not to the manor born.

"France, which at the outbreak of the revolution was without a constitution, made one. Within a century it has made and unmade constitutions with feverish rapidity, adopting a new and setting aside an old as caprice and levity may dictate. How long the present one will survive nobody knows.

"What is true of France is true in greater or less degree of all the other countries named. At the conclusion of the great Napoleonic contest, by the defeat of Bonaparte at Waterloo, the continental powers found that they could no longer govern on the old lines, that the ideas of the revolution had to an appreciable extent leavened the mass of continental peoples, and that some degree of freedom must be accorded them. Exponents of these ideas were clamorous for constitutions, and most of the great powers sooner or later were obliged to yield to their demands. So the era of constitution making began. They thought that they might follow the example of America. But they forgot that America had inherited the principles of British freedom for twenty centuries; that they were steeped and saturated with constitutionalism, and that the constitution of America was only an articulate expression in a well defined form of the constitutionalism in which they were born and grew up—a special adaption of old principles to new conditions.

"But ~~constitutional~~ the Continental powers had neither the traditions nor unwritten law of Englishmen to fall back ~~on~~ upon. Their constitutions were like many suits of clothes made out of new cloth and made adaptible to the wearer as best they might, to be thrown aside when they had served a temporary purpose. They were not the outgrowth and crystalization of native ideas. They were foreign ideas sorted into new adjustments, and as might be expected, their constitutions have failed to meet the purpose intended.

"Indeed, they have served to promote the growth of factions, rather than patriotism. Instead of two great political parties with definate ideas and objects, as in America and England, continental Parliaments are split into numberless groups, each warring against the others, political Ishmaelites,

whose hand is against all other groups in the chamber, and whose sole conception of parliamentary government and ministerial responsibility is by temporary alliance with other hostile groups to embarrass and harrass and block the machinery of government and overthrow existing ministries.

"Sometimes this difficulty is complicated still more by the personal intervention of the exuctive, whether King, Emperor or President, embarrassing deliberations and coercing legislation. The trouble with them is that there is no antecedent body of local and national tradition, individual or corporate, out of which constitutionalism could be evolved. They are fighting with armor which, like David in Saul's coat of mail, they have not proved.

"I come back, then, to my allegation that constitutionalism, parliamentary government, the outgrowth of the political and social ideas of the race, is in its highest developement, in its comparative perfection, the heritage and exclusive possession of this English-speaking race, on this and on the other side of the Atlantic. And what a glorious possession! Many prophets and rightous men have desired to see the things which you see, and have not seen them; and to hear the things which you hear and have not heard them. Happy race! the future of this planet, the future of mankind is yours.

whose hand is against all other groups in the chamber, and whose sole conception of parliamentary government and ministerial responsibility is by temporary alliance with other hostile groups to embarrass and harrass and block the machinery of government and overthrow existing ministries.

"Sometimes this difficulty is complicated still more by the personal intervention of the exuctive, whether King, Emperor or President, embarrassing deliberations and coercing legislation. The trouble with them is that there is no antecedent body of local and national tradition, individual or corporate, out of which constitutionalism could be evolved. They are fighting with armor which, like David in Saul's coat of mail, they have not proved.

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47-M-64

What's

Summary of English

History.

Constitutionalism peculiar

to Anglo-Saxon

To

James K. Patterson Ph. D.

President State College of Kentucky.

Lexington, Ky.

It is my pleasant duty to submit my first annual report relative to the Mechanical Engineering Department of the State College of Kentucky.

On the 25th. day of July I89I, I began my active duties preparatory to the establishment of mechanical laboratories.

On August 7th. I89I the Executive Committe made the first appropriation for the purchase of machinery. the amount being $7825. and Feb. 3d. I892, a second appropriation of $4913.35. was made.

On the 6th. of April the building and equipment was turned over to the Executive Committee complete and an itemized list of expenditures was submitted.

The total cost of the equipment including machinery, tools and supplies was $I498I.07. The complete record of expenditures and progress is in the hands of the Secretary of the Executive Committee, and makes a part of this report.

On April 6th. I892 $200. was appropriated to operate the shops from April Ist. to June Ist. I892.

A study of the development of the Mechanical Engineering Department during the year, will show that this department of the College is on a firm working basis, and by liberal support and careful management it is destined to be one of the leading technical schools of the South.

During the first term of this Collegiate year, the shop work was carried on in the old shop, and the drawing and theoretical work in the unoccupied rooms of the main College building.

The old shop in the basement of the main College building, was fitted up to accommodate twenty students. Seven benches and thirteen wood lathes were provided, each equipped with the best tools

that could be purchased.

The practical work in the old shop began Sept. I4th. I89I, with four students at the bench, and closed Wednseday Dec. 23d. with the shop filled to ots capacity,(seven students at the bench and thirteen at the lathe,)

The new Mechanical Laboratories were ready for systematic technical work on Monday Jan. 4th. I892, and from Jan. 4th. I892 to the close of the presen t term have given technical instruction to fifty-one students in wood-work and foundry practice.

A marked interest has been manifested by students pursuing the practical course work, and the specimens in the Mechanical museum have been highly complimented by competent mechanics.

Theoretical instruction has been given to ywenty-two students in Mechanical Drawing,Principles involved in Tools,Kinematics and Steam Boilers.

The complete statement of the equipment, course of study and the fundamental aim of the school as now founded,are given in the following pages,and I desire the same to be made a part of the College Register for the years I89I-93.

School of Mechanical Engineering.

The training given in this school, both practical and theoretical, is intended to prepare young men for positions of responsibility and trust in the Commercial Mechanical Engineering world.

The practical work extends over a period of two years and includes the most important principles and operations in bench work in wood, wood-turning, pattern making, foundry work,iron and steel forging,and hand and machine work in metal.

The theoretical work,during the first two years.consists of a thorough training in English,German,Chemistry,Mathematics,Physics and Drawing,during the last two years the fundamental princi ples of boiler,machine and engine design are taken up.

By a careful solution of practical problems, the student be-

comes familiar with the processes carried on by operators and designers of successful machine plants.

The course of study in Mechanical Engineering extending over a period of four years, leads to the degree of B.M.E.(Bachelor of Mechanical Engineering). The advanced degree, M.E.(Mechanical Engineer)may be obtained by resident students in one year after taking the degree of B.M.E. from the State College of Kentucky,or any other institution of equal requirements,having successfully carried on work laid down,passed a satisfactory examination and presented an acceptable thesis.

The advance d degree may also be taken in three years after obtaining the degree B.M.E.,provided the student has been engaged during tha period of three years in practical engineering work, passed a satisfactory examination at the College,and presents an acceptable thesis.

FRESHMAN YEAR.

TECHNICAL INSTRUCTION.

Twenty-six weeks,three hours per week.

(a)Recitations on the forms of wood-working,tools and the cutting and peculiarities of timber.

(b)Lectures on the methods of operating various forms of wood-working machinery.

(c)Lectures on pattern making,molding and casting.

MECHANICAL DRAWING.

Twenty-six weeks,six hours per week,and ten weeks,ten hours per week.

This drawing includes freehand sketching,drawing from copies and from model;using parts of machines in the mechanical laboratories as models.

SHOP WORK.

Thirty-six weeks,twelve hours per week.

(a) Bench work in wood, including exercises in the following operations: planing, sawing, rabbetting, plowing, notching, scribing, mortising, tenoring, dovetailing, framing, paneling and general use of carpenters tools.

(b) Wood-turning, involving the various principles of lathe work in wood.

(c) Pattern-making which gives the student discipline in the constructions of patterns for foundry work.

(d) Foundry work, including the various operations of molding, core-making, and the melting of iron and brass.

English: Thirty-six weeks, five hours per week.

German, Thirty-six weeks, five hours per week.

Algebra, Seventeen weeks, five hours per week.

Geometry, Nineteen weeks, five hours per week.

SOPHOMORE YEAR.

Technical Instruction.

Sixteen weeks one hour per week.

(a) Lectures in handling of iron and steel in forging, and the methods of hardening and annealing steel.

(b) Lectures in model making shop practice.

MECHANICAL DRAWING.

Sixteen weeks, three hours per week: twenty weeks five hours per week.

(a) Drawing the parts of machines and complete machines in pencil.

(b) Exercises in tinting and shading.

SHOP WORK.

Thirty six weeks, twelve hours per week.

(a) Exercises in iron and steel forging.

(b) Exercises in vise work in metal.

(c) General machine work, including screw cutting, drilling, planing, turning, and the fitting of iron, brass and steel.

Descriptive Geometry.

PHYSICS.

Nineteen weeks, five hours per week.

CHEMISTRY.

Seventeen weeks, five hours per week.

GEOMETRY.

Seventeen weeks, five hours per week.

TRIGONOMETRY.

Nineteen weeks, five hours per week.

Analytical GEOMETRY.

Nineteen weeks, five hours per week.

JUNIOR YEAR.

Kinematics.

Seventeen weeks, five hours per week.

Under this head is studied the velocity ratios in various motions, the construction of gears, cams, quick return motions, epicyclic trains, parallel motions, straight line motions, and the number of designs of mechanism.

Mechanical Drawing.

Thirty six weeks, ten hours per week.

The work done during the year consists in the design of machines to do certain specific work, and the making of detail drawings of machines, used in actual construction in the laboratories.

METALLURGY.

Nineteen weeks, three hours per week.

The above subject includes the study of fuels and other refractory substances and the processes employed in puddling iron and making steel.

CHEMICAL LABORATORY.

Thirty six weeks, five hours per week.

CALCULUS.

Nineteen weeks, five hours per week.

PHYSICS.

Seventeen weeks,five hours per week.

ANALYTICAL MECHANICS.

Ten weeks,five hours per week.

STRENGTH OF MATERIALS.

Nine weeks,five hours per week.

SENIOR YEAR.

Thermodynamics.

Twenty-six weeks,three hours per week.

This work consists of a study of the laws of thermodynamics,thermal capacities,and the application of thermodynamics to the steam engine.

STEAM BOILERS.

Seventeen weeks,five hours per weeks.

A study of the various commercial steam boilers,consumption of fuel,incrustation,determining the horse-power of boilers,boiler tests,the design of boilers for efficiency and economy,and the method of power transmission.

Valve Gearing.

Seventeen weeks,fivehours per week.

This study of various forms of standard engine valves and methods of designing.

MECHANICAL DRAWING.

Seventeen weeks,ten hours per week.

This work consists in working out practical designs of boilers and steam engine valves.

ENGINE AND MACHINE DESIGN.

Fifteen week,five hours per week.

A study in the modern methods of designing engines and machines for strength as well as for motion.

MECHANICAL ENGINEERING.

making engine,boiler,belt and materials of construction tests.

MENtal PHILOSOPHY.

Seventeen weeks,five hours per week.

POLITICAL ECONOMY.

Fifteen weeks,five hours per week.

THESIS WORK.

Sixteen weeks,Fifteen hours per week.

Every student before he attains the degree of B.M.E. must present a satisfactory thesis on some new design of an engine, or an original investigation of some old machine.

A greater part of the second term of the Senior year is given to the preparation of this thesis. The subject for theses are assigned by the Professor of Mechanical Engineering and the Completed theses kept on file with the College records,that they may serve as a reference for future investigators.

The following is a description of the Mechanical Hall, and a statement of its equipment.

THE BUILDING.

The Mechanical Hall is built of pressed brick and stone, and finished in yellow pine. It contains the following rooms:Recitation Room 34x35,,Recitation Room 25x35,Office 10x12,Drawing Room 34x55, Library and Exhibition Room 35x25,Engine Room 20x30 ToolRoom 30x6, Wash Room 30x10,Boiler House 27x27,Wood Shop 80x54,Machine Shop 42x35,Blacksmith Shop 35x35, and Foundry 35x37.

RECITATIONROOMS.

The Recitation Rooms are supplied with all the modern conveniences for effecient class room work.

DRAWING ROOM.

The Drawing Room contains drawing tables,drawing boards,curves scales,tee squares and other special drawing apparatus to accommodate thirty students.

ENGINE ROOM.

ENGINE ROOM.

The Engine Room contains a 10 inch by 24 inch Hamilton-Corliss, non-condensing engine, and an 8,5 kilowatt Edison compound dynamo, with ampere-meter resistance box, and volt meter so that the dynamo may be used for experimental purposes.

WOOD SHOP.

The Wood Shop contains twenty benches with complete sets of wood-working tools; thirteen wood-turning lathes, each with complete set of wood turning chisels; band sawing machine, double circular saw machine, universal wood worker, fret saw and a grindstone.

FOUNDRY.

The Foundry contains a 30 inch cupola furnace, with a capacity of a ton of metal per hour, brass furnace, twelve complete sets of molders tools, twelve benches, also ladles, clamps, core room, core oven, pattern rack, and the tools contained in a practical foundry.

BLACKSMITH SHOP.

The Blacksmith Shop contains a ten inch steel pressure blower, twelve forges, twelve anvils, three blacksmith vises and emery grinder, and twelve complete sets of blacksmith tools for carrying on all kinds of iron and steel forging.

MACHINE SHOP.

The Machine Shop contains six lathes, one milling machine, one self-feed drill, one hand drill, one sensitive drill, one planer, one shaper, one tool grinder, one emery grinder, one miller grinder and twelve iron vises and benches for vise work in metal.

TOOL ROOM.

The Tool Room is supplied with a fine assortment of superior tools for work in iron, steel, brass and wood and contains such stock and supplies as may be used in constructions in the Mechanical Laboratories named above.

WASH ROOM.

The Wash Room contains lockers for sixty five students and is supplied with marble basins and closets.

BOILER HOUSE.

The Boiler House contains a fifty one horse power Babcock & Wilcox water tube boiler, and a Dean Bros. No. 8 Steam Pump.

The building is heated by steam and lighted by 150 incandescent and 4 arc lamps.

RECOMMENDATIONS.

I hereby submit the following recommendations for your careful consideration and approval.

1st. That the following money be appropriated

for the purchase of experimental apparatus and tools...$1500.00

Stock used in constructions and class work.....$1000.00

Drawing Room tools and supplies..... $150.00

Books and periodicals to form the basis of a technical

library..... $425.00

$3075.00

2nd. That the Mechanical Engineering School be made an independent course of study in the College, self contained, but correlated with the other courses of study; that it be given its own head in name as well as in fact; that it shall not exist even nominally, subordinated to any other course.

The school has been built up and existed in fact, though not nominally, the past year, on an independent basis and under this condition of affairs has flourished.

The growth and development of the Mechanical Engineering school will be stimulated by making it nominally, as it is in fact, a self contained course, a school in itself, allowed to expand as rapidly as our financial resources and undivided attention will allow.

3d. As the duties of the Mechanical Engineering course are to be but imperfectly carried out by one man, I recommend that James E. Wells, Instructor in Purdue University be engaged at a salary of $900.00 for the first Collegiate year, as assistant in Mechanical Engineering.

4th. As my salary of $1200.00 was merely a provisional one, I respectfully ask that my salary for the next year be increased to that amount paid to the other members of the Faculty who have entire charge of courses of study.

Yours most respectfully,

(signed) F. Paul Anderson.

A.&M.College.

Lexington, Ky. May, 25th. 1892.

Prest. James K. Patterson,

Prest. A.&M.College of Kentucky.

Lexington Ky.

Dear Sir:- I have the honor of submitting to you the report of my work done during the session ending June 2, 1892, as Professor of Civil Engineering and Physics, as follows:-

In my senior class offering for the degree of Civil Engineer have been five students, four of whom I beg to recommend for the degree, and one of whom will not ask for the degree at this time. The four who have finished the prescribed course, and who are recommended are, Mr W.S. Page, F.C. Reynolds, F.E. Scovell, and I.P. Shelby. On account of some minor deficiency in the prescribed course, Mr. E.F. Paine will not offer for the degree, although he has completed with credit the major part which is essential to fit him for the practice of the profession of a Civil Engineer.

In the Junior class have been only two, MR. Johnson and MR. Bailey. In the sub-classes have entered about fifteen who have signified their intention of pursuing a course in Engineering, electing some one of the different branches of the Department. On account of the rather incomplete condition of the Department when I became its Dean, I have not been able to ascertain exactly what students will pursue, after the Freshman year, a regular course in Engineering. With the new arrangement of courses it will be possible to systematize the matriculation so as to know who are students in the Engineering.

The work done in detail in Engineering by me has been in class as as follows:-

Calculus and Analytical Mechanics. These two studies have been continued on alternate days during the entire session. An effort has been made to place the instruction in these fundamental parts of an Engineers training on a high plane so as to enable our students to pursue studies at their pleasure in not only their profession but in all the Sciences which demand training in the higher Mathematics. I hope that we can stimulate in the Colleg a love of learning in the higher mathematics so that we can induce our students to undertake original work in this direction.

BRIDGES AND STRUCTURES.

The class in this study has used Dr. Bois's admirable work, and has passed with credit the examination therein.

PHYSICS.

The class in Physics worked only one term, which was too short a time for the proper study of so important a subject in the course of Sciences. Attention was paid especially to General Physics, Heat and Electricity.

In Electrical work the senior class in Engineering spent certain a afternoons each week so as acquire some proficiency in the use of Electrical Apparatus.I hope and have planned to extend this course so as to enlarge it into a course in Electrical Engineering.

For the next session I have asked an appropriation,whose details are in the hands of your Business Agent,Prof.White. for proper submission to you and the Board of Trustees. I desire to extend the work in Engineering on the lines laid down this year. With the assistance of Prof. Pence,who has been acting as an assistant this year, and with,perhaps,the assistance of a tutor to aid me in laboratory work, I can carry on the labor in my Department.I ask that an appropriation be granted for the employment as it seems necessary of a tutor or assistant to help me in such work as I may desire to detail to him. This shpuls be about $300.00 and the person chosen could be known as an assistant in Engineering.

To Prof. Pence I shall delegate work in Geodesy, in particular, and such other classes as will call for teaching in the advanced study of Engineering which I desire him to take charge of. The assistant whom I ask for in addition to Prof. Pence will be engaged chiefly in the manuel work of the Physical Laboratory.

I think it best that the course in Civil Engineering,and for the present, in Electrical Engineering should be directed,with your general supervision,by the Professor of Civil Engineering and Physics. This is in line with the practice in our best Colleges. The assistant in these Departments should carry on their work unde the immediate direction of the Head of the General Department of Engineering, so that the putline of teaching may be directed harmoniously.

The general work done under my direction has been of good character. The four students recommended for the Degree of Civil Engineer have shown diligence and ability in their work.They will be useful men I am sure,and will be worthy of the honor which they

have won in our College.

I remain very truly,

Your Obed't.Servant,

(Signed) J. P. Nelson

Professor,Civil Engineering&Physics

To the President of the State College of Kentucky.

Sir:-

I have the honor to submit the first report of the Veterinary Department of the State College of Kentucky.

Arriving as I did about one month after the opening of the school year some little trouble was experienced in securing students to take hold of the work.However,a class was finally formed in Veterinary Anatomy consisting of five students. During the remainder of the first session the study of the muscles,intestines,nervous system etc., was taken up. The study of these various organs and textures was greatly facilitated and simplified by means of dissections,each student being required to work out each dissection himself.

A class in Materia Medica was also formed at the beginning of the second session consisting of five students,and considering the facilities,the work that has been done this past year is very gratifying indeed.

The clinic has not been large as it was not known to the general public that a free clinic would be held daily. But as soon as it becomes known to the surrounding country there is not the least doubt but that the clinic will be very well attended.

During the past year the Trustees have very generously appropriated an appropriation for the equipment, in part, of the Veterinary Department and also a nice sum for the purchase of Veterinary books for the library. The most urgent needs of the Department,at present, are a Veterinary hospital and dissecting room.We have no accommodation whatever for stock left with us for treatment and if

we expect the people to bring their animals here for treatment we must have a place to put them. Another very necessary adjunct to any Veterinary school is a dissecting room amply equipped with apparatus and appliances and an abundance of water. The present dissecting room is but poorly equipped and the water that is needed must be carried from the Mechanical building. I would therefore recommend and advise if we want to have a flourishing Veterinary school in connection with the State College of Kentucky that a hospital and dissecting room be erected as soon as possible.

It would also be advisable, in order that we may bring this Department before the public to insert a card in the too or three stock journals.

Very respectfully yours,

(signed) S. E. Bennett.

REPORT OF THE NORMAL SCHOOL.
STATE COLLEGE OF KENTUCKY.

The Summer Term.

Beginning June 8, 1891, lasting six weeks.

Statistics.

Total number of matriculates.....56
Total number of Gentlemen.....23
Total number of Ladies.....33.
Total numbers of counties represented.....30
Total number of matriculates from Fayette Co.....9
Total number of matriculates who have been matriculates of the State College before.....12
Total number of matriculates who are graduates from some school.8.

Comments.

It should be noted that very few of the Summer students are of those whohave been in the College during the regular session. The great majority of the matriculates of the Summer Training School are new students. Thus the Summer Term serves two legitimate pur-

poses.

1st. It affords a much needed opportunity for teachers who cannot enter during the regular session to get some training for better work,and the State owes as much to these as to those who can come during the regular terms;

2nd. It favorably advertises the school to a large number of excellent teachers and their friends.

The small number from Fayette Co. should be noted. The Summer attendance is no more local than that of the regular session.

The large number of counties should be noted.More counties are represented in the summer term,in proportion to the total number of matriculates,than in the regular term.

The matriculates of the Summer Training School are all mature men and women,most all of them teachers of experience,and of a char acter which the Normal Department ernestly desires more of.

Present indications are that the attendance upon this coming session of the Summer School will be greater than last year. summer. The usefulness and value of this special school are recognized by Teachers all over the State. Hon. Ed. Porter Thompson, Supt. of Public Education,has most heartily endorsed it in a letter a copy of which I beg leave to submit herewith:-

Department of Public Instruction.

Frankfort, April 25, 1892.

Prof. Barie H. Roark,

Lexington Ky.

Dear Sir:-I cannot sufficiently commend the action of the Executive Committe of the State College in establishing the Summer Training School.The years session of which you will open on June 6th.

With free tuition and boarding so low as to make living at the State College as cheap as living at home,even for the most economical,the attendance will doubtless be such as to indicate

that our teachers are ambitious to improve themselves and glad to seize upon opportunities so favorable. The advantages of able instructors, well-appointed school rooms, and attractive surroundings, cannot be neglected by those who know the importance of learning how to teach, as well as improving upon their stock of knowledge of all the branches to be taught.

The statement of a single fact ought to awaken every man and woman who has essayed to instruct the children of Kentucky, and induce all who can possibly do so to take somewhere a course of special training this summer. The fact to which I allude is this: Of our 8000 white Teachers of Common Schools, only 22% hold first class county certificates, while 50% have second class, and the remaining 28% third class.

Every effort to help teachers to better things is an effort in the direction of important public service.

Yours truly,

(signed) M. Porter Thompson.

Supt. Thompson also very kindly distributed from his office a large number of the special announcements of the forthcoming Summer term.

THE REGULAR SESSION.

OF 1891-92.

Statistics.

Total number of matriculates.....	154
Total number of matriculates before the Holidays.....	68
Total number of matriculates after the Holiday.....	86
Total number of gentlemen.....	108
Total number of ladies.....	46
Total number of matriculates who have been in the Dept. before	40
Total number of counties represented.....	65
Total number of counties represented this year that were not last.....	19

Total matriculates from Fayette Co..... 12

Total matriculates who have taught..... 74

Total number of matriculates who are taking all or part of the regular Professional Course..... 29

Total number of graduates this year.-Degree Bachelor of Pedagogy..... 1

Average age of matriculates, Summer Term and regular.... 20

Totalien number of matriculates, Summer Term and regular session..... 210

Total number of labled volumes in the Normal Dept. Library 581

Total number of unlabled pamphlets, about..... 100

Total number of papers, periodicals, &c taken from the Reading Table..... 17

Total amount of apparatus.....1 set Teller. Maps.

1 set Wall Maps.

1 set Tellurian Globe.

1 set Geometrical figures.

1 set Cube-root Blocks.

COMMENTS AND RECOMMENDATIONS.

The Normal School being, in a way, a distinct school, should be advertised so as to reach specifically the attention of Teachers. Advertising matter should be sent out early in the summer to reach those expecting to enter school in September, and again late in the Fall, to reach those whose school s close about the Holidays. This has been done heretofore, and I respectfully recommend a continuance of the plan.

My work in Teachers Institutes has taken me from one end of the State to the other, and I find in ~~many~~ every county many teachers of average intelligence who have no adequate or favorable knowledge of the Normal Department of the State College. The work and opportunities of the Department, being exclusively for Teache

and through them for the betterment of the Public Schools of the State, should be brought to their notice through the best channels and in the most effective ways.

The attendance od ladies is large. Only about one fourth of them live in Lexington, or have friends here with whom they can make their homes while in school. This matter touches my Department so intimately that I feel it within my province to recommend earnestly the provision of a Ladies' Home, where, under a competent matron, the lady pupils of the Normal Department can find good accommodations at rates much lower than are now paid for private board. There seems to be no good reason why the State should discriminate in this matter in favor of the gentlemen, whose services as teachers are usually much better paid than those of lady teachers. A Ladies' Home is a serious and pressing need, and has been for at least three years.

The large number of new counties represented this year should be noted. Judicious advertising through the local press and through other channels in the counties not now represented will still further increase the this list of the counties sending representitives to the Department.

The large number who have partly or wholly entered the Normal course since it was shortened and made more professional, should be noted. The number taking this course would be largely increased if the State could again recognize the Diplomas as life certificates to teach throughout the state. There would then be some strong external inducement for a teacher to take special preparation for his work. I earnestly recommend that this matter be brought to the notice of the present General Assembly. The State should grant this recognition to those whom it trains to teach its own schools.

The high average age of the matriculates of the Normal Department is a noteworthy point. The students are mature men and women, earnest, knowing what they want, and appreciating it when they get

it.

I desire to call attention to the inadequacy of the Library to meet the rapidly growing requirements of the Department. Of the 521 volumes only about 110 are professional, bearing upon the business of the teacher's work. That books are here are much used and greatly appreciated, and many more are needed.

The amount of apparatus at the disposal of the Department is also insufficient. More illustrative material is needed in Geography, in Nature Study, and especially in the Teachers' Training classes.

There is always a large influx of teachers into the Department after the Holidays, as most of the Public schools close about that time. It is this body of Teachers whose needs are greatest and most immediate, and to whom the Department owes its best service. The classes are large and have to be carefully subdivided and grouped into sections during the last half of the term. It becomes then absolutely necessary to employ a third Normal teacher during ~~the last six months.~~ this second five months, one who can find special training for Normal work, and who is therefore fully competent to give the teachers who enter for that term such instruction in the common branches as will illustrate the best methods of teaching them in the Public Schools of the State. Two teachers can not meet the ~~reasonable~~ legitimate demands of the second five months at the present rate of increase of attendance. Three will soon find it difficult to do so.

Respectfully submitted,

(signed) Birdie H. Pearl, Dean Nor., Dept.

State A.&M.College,

Lexington, Ky May 30th. I892.

President James K. Patterson,

Dear Sir:-

The following report of the work done in the Academy during the year ending June 2nd. I892, is respectfully submitted.

The number of applicants for admission was.....I55.
" " " " who failed to pass the enterance examination...I5
" " " " " left before making a recitation..... 2 I7.
" total enrollment.....I38.
" number of males.....II6
" " " " " females..... 22 I38.
" " " " new students.....89
" " " " former" " " 49.I38
" " " " counties represented.....8I
" " " from Lexington and Fayette County.....72.
" " " " other parts of the Syaye.....64.
" " " " " " States.....2.I38.
" " " present at the final examination.....87
" " " who left prior to " " " " ".....48
" " " dismissed on demerits..... 3.I38.
" " " who had all their classes in the Academy.....I30.
" " " " " " College classes.....8.I38.
" " " of irregular, Normal and College students,
taught in the Academy.....II.

They are classified as First Year, and Second Year students.
Elementary
The Elementary students numbered.....28.
" First Year " " .....76.
" Second Year " ".....34..I38.

The following table shows the subjects taught in the Academy: the classes, the number of students, the average attendance, the number

present at the final examination, the number who passes, in each class: and the name of the instructor.

Subjects.	Classes.	Total No Enrolled.	Approx. Avg. Attendance.	Number Examined.	Number Passed.	Instructor.
Algebra.	Sec. 3. Elementary.	28.	22.	19.	14.	Prof. Muncy.
	Sec. 2. Elementary.	33.	24.	13.	5.	" Logan.
	Sec. I. Elementary.	20.	19.	16.	7.	" Patterson
	Sec. 2 Higher.	17.	14.	10.	5.	" Logan.
	Sec. I. Higher.	17.	14.	13.	11.	" Patterson.
Arithmetic.	Sec. 2. Practical.	22.	18.	15.	8.	" Muncy.
	Sec. I. Practical.	26.	18.	15.	5.	" Logan.
	Sec. Higher.	29.	26.	19.	9.	" Davis.
	Sec. 2. Higher.	24.	18.	14.	11.	" Muncy.
	Sec. I. Higher.	27.	18.	20.	15.	" Davis.
English.	Sec. 2. Ele. Gram.	26.	18.	15.	10	MRS. Blackburn.
	Sec. I Elem. Gram.	30.	23.	17.	10.	Prof. Davis.
	Sec. 2. Adv. Gram.	28.	21.	19.	15.	" Logan.
	Sec. I. Adv. Gram.	29.	22.	18.	18.	" Muncy.
	Rhetoric.	17.	11.		10.	" Shacklefor
Ancient Languages	Latin.	24.		14.	14.	" Neville
	Greek.	3.		8.	8.	" Neville.
History	Elementaty.	38.	20.	29.	23.	Mrs Blackburn.
Science.	Sec. 2. Geography.	36.	22.	27.	22.	" " "
	Sec. I. Geography.	35.	21.	23.	17.	Prof Patterson.
	Elementary Zoology.	18.	15.	12.	6.	" Garman.
	" " " Botany.	24.	20.	20.	13.	" Mathews.
" " "	" " " Physics.	28.	22.	21.	16.	" Davis.
	Physical Geography.	20.	18.	14.	13.	" Davis.
	Book-keeping.	11.		2.	2.	" Ferris.

Zoology and Botany formed our class, the former being taught the first term and the latter the second. Physics and Physical Geography also formed one class, Physics being taught the first term and Physical Geography the second. Section 2. Elementary Algebra formed two classes during the first term, one class being taught by myself and one by Prof. Logan.

All of the classes except a class of beginners in Algebra, were organized at the beginning of the year recited daily and continued to the end of the year.

The class of beginners, mentioned above and named Sec. I Elementary Algebra in the foregoing table, without any previous training

in the subject was put into a very difficult text book, Wentworth's Higher Algebra, as an experiment, to determine the expediency of dispensing entirely with an elementary text book. They completed the subject through Factoring. Although only eight received above 11.25 in scholarship, four others had above 10.25 and will be permitted to continue with the class should they return.

An intermediate examination was held the latter part of January in the highest class in Arithmetic, and in the History and Geography classes. Seven in Arithmetic, fifteen in History, and twenty-two in Geography, fifty-four in all, passed satisfactory examinations and were assigned to the following classes: Greek 2, Shop work 2, Latin 6, Book-keeping 7, Botany 13, and Algebra 15.

Monthly reports during the year and a final report for the entire year were sent to the parent or guardian of each pupil. The monthly reports contained the class standing, merits and demerits for the month; the final report contained the scholarship, merits and demerits for the year.

Reports of the classes in Zoology, Botany, Rhetoric, Latin, and Greek, and Book-keeping will doubtless be made to you by the Professors who had them immediately in charge.

The reports of Prof. Logan, Davis, and Bundy and Mrs. Blackburn are herewith submitted and made a part pof this report.

The large number who failed to pass or profit by our instruction, as shown by these reports, was not due to any lack of industry or zeal on the part of the teachers, but to the defective early training and lack of application on the part of the pupils.

I gave one hour a day to visiting the rooms and supervising the work of my assistants and was present also at such other times as the duties of my own room permitted and occasion required, to give counsel and direction to their work.

We met on Friday of each week to deliberate on matters pertaining to the general welfare of the Department, and to devise

means of correcting the delinquencies of individual students.

The organization and dicipline of the Department is thorough, and the facilities for instruction are ample.

Since the last annual meeting of the Board, the Executive Committee have appointed Messers J. M. Davis and V. H. Muncy Assistants in the Academy. The former to fill a vacancy and the latter as an additional assistant.

I recommend that these gentlemen be reappointed for another year and that the salary of Mr. Muncy be increased. His services are worth more money than he is now receiving.

In conclusion I will say that the results of the year's labor although they fell far short of my expectations, were in the main, very satisfactory.

I am, with great respect,

(signed) W. K. Patterson,

Principal of Academy.

Lexington Ky. May 31st. 1892.

Gentlemen of the Board of Trustees.

A. & M. College of Kentucky.

I have the honor to submit to you herewith a report of the condition and operation of the Agricultural and Mechanical College of Kentucky for the collegiate year ending June 1st. 1892.

Since my last annual report the College has made material advances in several directions. Hitherto lack of funds prevented the expansion desired. The heavy debt with which the College found itself burdened upon the completion of the buildings erected in 1881 1882 was not discharged until 1886. During that period of course growth was impossible. When relieved of this burden attention was first given to the development of the Agricultural necessities of the institution. The Experiment Station was established and equipped at a considerable outlay and with an annual charge thereafter of several thousand dollars for salaries and other expenses. The Hatch Act passed in 1877 appropriating $15000 annually for the maintenance of Experiment Stations relieved the College funds hitherto used for that purpose and made possible the erection of a building suitable for the work of the Station. Meanwhile the necessities for increased accommodations for boarding and lodging students were pressing upon the Authorities of the College. These necessities became more urgent in consequence of the largely increased demands for Normal School training. After the reorganization of that ~~party~~ Department under Prof. A. L. Peterman whose zeal and energy gave it new life. The Trustees accordingly proceeded to build a new dormitory which with its equipment cost about $15.000, when completed the aggregate accommodation for students resident upon the College grounds was nearly doubled and the benefits of the College to poor young men correspondingly extended.

As yet the Mechanical Department could be said to exist only in na mame. Some machinery had been purchased, but no systematic instruction had been attempted or indeed was possible. No separate building existed in which mechanical operations could be carried on, and no funds could be spared for the employment of skilled instructors. But with the passage of the Morrill Bill in 1890 a new era of development was entered upon. The appropriation by the Federal Congress of $15000 the first year with an annual increment of $1000 each year thereafter until the maximum under the law viz $25000 should be reached, placed at our disposal such a fund as made the establishment of a mechanical Department on a scale commensurate with the necessities of the college possible. It is true that we were shut up to the necessity of dividing this fund with the colored people of the State or of opening our doors to their admission. The Governing Board chose the former alternative and preferred to loose a part of the fund rather than admit an element of disorganization into the institution. We receive therefore not the whole of the annual appropriation by Congress but 861/2% of it. Congress provides the application which may be made of this annuity. No part of it can be used for the erection or repair of Buildings. It may be used ofor the payment of Professors who give instruction in those branches of learning which are related to Agriculture and the Mechanic Arts. It may be used for the purchase of the materials necessary to make instruction ~~necessary~~ effective in those branches of study. It may be used for the purchase of machinery. But it cannot be used for purposes other than these. Out of this Federal as distinguished from the State fund which accrues from the half cent tax levied by the State for the benefit of the college the salary of any Professor engaged in teaching those branches of learning which come within the scope of Federal legislation may be paid. This enabled us to transfer the payment

ENGINE ROOM.

The Engine Room contains a 10 inch by 24 inch Hamilton-Corliss,non-condensing engine,and an 8.5 kilowatt Edison compound dynamo,with ampere-meter resistance box,and volt meter so that the dynamo may be used for experimental purposes.

WOOD SHOP.

The Wood Shop contains twenty benches with complete sets of wood-working tools;thirteen wood-turning lathes,each with complete set of wood turning chisels;band sawing machine,double circular saw machine,universal wood worker,fret saw and a grindstone.

FOUNDRY.

The Foundry contains a 30 inch cupola furnace,with a capacity of a ton of metal per hour,brass furnace,twelve complete sets of molders tools, twelve benches,also ladles,clamps,core room,core oven,pattern rack,and the tools contained in a practical foundry.

BLACKSMITH SHOP.

The Blacksmith Shop contains a ten inch steel pressure blower,twelve forges,twelve anvils,three blacksmith vises and emery grinder,and twelve complete sets of blacksmith tools for carrying on all kinds of iron and steel forging.

MACHINE SHOP.

The Machine Shop contains six lathes,one milling machine,one self-feed drill,one hand drill,one sensitive drill,one planer,one shaper,one tool grinder,oneemery grinder,one miller grinder and twelve iron vises and benches for vise work in metal.

TOOL ROOM.

The Tool Room is supplied with a fine assortment of superior tools for work in iron,steel,brass and wood and contains such stock and supplies as may be used in constructions in the Mechanical Laboratories named above.

Practitioner of Veterinary Science has been ample. His ability to put into practice his theoretical knowledge both at the College and in the neighborhood has found opportunity and has not disappointed us. I know of nothing more important for the stock-breeders of Kentucky than training in such a school as this promises to be, and I feel equally sure that no better selection for the headship of the Veterinary course of study could have been made. I commend to you the Report of his Department herewith submitted.

Another important Department, that of Civil Engineering, has been strengthened by adding another professor. Prof. J. P. Nelson a practical Engineer of experience and capacity has been made head of the course of study leading to the degree of Civil Engineer, the former professor in charge of the Department being retained as his associate in instruction. Thus strengthened we believe that we can now present to the public a course of instruction equal to that provided by any institution of the South.

The retirement of Prof. W. H. Stark Prof. of Botany and Agriculture, at the close of the last collegiate year made the selection of a successor necessary. The choice fell upon C. W. Mathews a graduate of Cornell University, and highly esteemed by those who knew him as a young man of exceptional ability. He entered upon the duties of his Chair at the beginning of the second term. He divides time with the College and the Experiment Station, receiving proportionate compensation from each. His work has been ~~both~~ entirely satisfactory both to the College and the Station.

The scope of the Department of Anatomy and Physiology has been enlarged so as to bring it into correlation with our expansion in Zoology and Botany, thus making possible a course of study in Biological Science leading to a degree equal to that of any offered

by our neighbors in the surrounding states. These three Departments are all in hands of comparatively young men, competent, vigorous, zealous and industrious, eager to mak e a reputation for themselves by building up their repsective departments and bringing them into line with those of advanced workers elsewhere. A comparison of the courses of study and schedules of work presented by the Faculty to the Executive Committee and adopted by them in place of those hitherto used, with those which they supersede will make it manifest what advances have been made along the lines of Scientific work in the College.

The work done by the Experiment Station is presented in the Report of the Director herewith submitted. By this we come into touch with the farmers of the Commonwealth among whom its bulletins of Experimental results are largely distributed among the farmers and eagerly sought for.

The special benefit accruing to the State from the establishment of the Normal School in connection with the A. & M. College is or should be the advantage derived from the divisions of labor and the correlations of classes. The special function of a Normal School is to train teachers. It does not teach them what to teach. It assumes the existence of a knowledge of the subject matter to be taught. It teaches the teacher the best method of teaching what he already himself knows. The function of the Normal School is professional and technical only. Pupils who enter the Normal S School to be trained as teachers should know Goegraphy, Grammar, Arithmetic, Algebra, Physiology and other branches required as qualifications for obtaining a certificate authorizing them to teach in the Common Schools. If they do not know these they have no business in the Normal School. If so prepared for enterance they become the intelligent recipients of the professional trainin which it is the function of the Normal School to provide.

If the pupil unfortunately be not thus prepared when he comes he should be relagated the Academy for preparatory instruction. Classes exist in the Academy which provide instruction in Geography, Grammar, Algebra, Arithmetic and into these classes they should properly go. Having acquired the necessary preliminary knowledge of the subject matter in the Academy they can then be admitted to the technical and professional training of the Normal School. In other words the Academy should perform the office of a preparatory school for the Normal Department in the same sense that it is a preparatory school for the College.

Now as a matter of fact the Normal School has been giving instruction to classes in Geography, Grammar, Arithmetic and Algebra although ample provision existed for these in parallel classes in the Academy. Before the present Principal of the Normal Department was appointed I had an interview with him in the Galt House in which I expressed my views of the office and duty of Normal School work substantially as above, and I was gratified to find that he concurred. But during my absence last year the system against the introduction of which I thought I had provided crept in and all or nearly all applicants for admission into the Normal School were admitted irrespective of preliminary preparation and classes for their instruction parallel with those existing in the Academy were organized. Before I was aware of it the same system was introduced this year.

I found in the predecessor of the present Principal a disposition which I was unable to control the same thing viz: to introduce into the Normal School work alien to the proper conception of a Normal, the Normal School should be held strictly to its own proper work viz: technical and professional training. Then there would be no necessity for extra expenditure in the Normal Department for extra teaching service during the second term of the collegiate year.

The Principal and his assistant would be quite equal to all its professional requirements. In this connection I suggest that the Board express its views upon the propriety of the continuance or discontinuance of the Summer Normal School in the future.

In view of the condition of the finances I respectfully suggest a careful examination of the estimates of the income and expenditure for the coming year. Further expansion either internal or external is under existing conditions, out of the question. The great desideratum now is to rid ourselves of the existing defi cit as rapidly as possibly. This can be done only by the most rigid economy. Wherewvr this is possible it should be done.

Salaries should be revised and adjusted on the basis of service rendered. Equipments for work in the laboratories and museums should be limited to requirments absolutely indespensable. Improvements on the ground whether in grading or landscaping should be reduced to a mimimum until the College is entirely free from debt. I am not aware that any provision was made last year for an authorized visitation of the College by a Committee of the Board. The members came here once a year. The College has closed its academic work before you convene. You learn what has been done from written reports only. There should be appointed a st nding committee whose duty it should be to visit the College at interval during the year in order to inspect its operations and learn from personal observation what it is doing. If their periodical visits were made unannounced so much the better. Your Committe could then report to the Board what had come under their own cognizance, and you would know from a source altogether independent of the Faculty what is done.

The condition of the various other Departments of study will be made apparent from the reports herewith submitted by the Profes sors in charge.

There are now in the College the following courese of study each leading to a degree.

1st Agricultural.

2nd, Scientific.

3d. Civil Engineering.

4th. Mechanical Engineering.

5th. Classical

6th. Veterinary.

7th. Normal School.

The Academy which prepares students for the College classes is the Common feederof all. Its course of study has been reduced to two ye ars instead of three, by raising the standard of admission.

The subjects taught in the College are the following.

Mathematics pure and applied.

Physics.

Civil Engineering.

Mechanical Engineering.

Chemistry, elementary, advanced, qualitative.

Analysis and Quantative Analysis.

Organic Chemistry.

Agricultural Chemistry.

Mechanics.

Zoology and Entomology.

Botany.

Geology.

Mineralagy.

Anatomy anf Physiology.

Horticulture.

Agriculture.

Veterinary Science.

History and Political Economy.

Military Science and Tactics.

Mental Philosophy.

Moral Philosophy.

Logic a

Rhetoric.

English Language and Literature.

Ancient Languages, Latin and Greek.

Modern Languages, French and German.

NormalSchool Training.

The number of Professors and instructors including the officers of the Experiment Station is 26, treble the number with which the College began twelve years ago.

The matriculates in the College, the Academy and the Normal school with those of the Commercial annex number quite six hundred.

Among all the Departments thr greatest harmony has prevailed, a spirit of mutual cooperation and emulation pervaded the whole.

The Professorship of Geology made vacant by the resignation of Prof. Orr nearly two years ago has not yet been filled.

The work of this Department has been done by Prof. Kastle in addition to his own proper duties. His instructions in Geology however have only been incidental to his own work and however well this additional duty has been performed, Geology should in an institution like this not be made incidental or subordinate to any thing else. The mineral interests of Kentucky not only justify but require that the most ample means be provided for such instructio as will enable the Commonwealth to educate her own Geologists in her own State College. I therefore recommend that this Board before adjournment make provision for filling this Chair by a first class man.

The administrative and executive duties of the College have become so important and exacting that it is no longer possible for the President to discharge these adequately and in connection therewith perform the duty of a class room instructor. The necessities of the case hitherto have required that he attempt both. But the expansion of the courses of study and oversight nessecary to coordinate properly the whole make the duty of the Professors Chair and the duties of administration by one man impossible. If he teach or lecture to classes, he must neglect his duties of administration. If he attend to his duties o of administration he has no time either for teaching or lecturing. I commend these facts to your careful consideration. I am willing to serve the College to the utmost of my ability but human capacity and human endurance have their limits. In my estimation my duties should be limited to those of administration alone.

The only element of regret that I have to express is that the health of Professor Shackleford, one of the best men of our Faculty, for several months rendered him quite unable to attend to his duties. They were, however gladly undertaken by his Colleagues, who with the voluntary aid given by my son, carried his classes on. I am glad to report that Prof. Shackleford, after an exhausting illness is at length recovering and hopes to return to the discharge of his duties when the College opens again.

I have endeavored to present in brief outline, what you will get in fuller detail from the reports herewith submitted, the work of the most successful year in the history of the College. It has outlived all opposition, converted its most active ennemies into friends. It has in the new Constitution received recognition, and has passed safely through the ordeal to which it was subjected in the House of Representatives. Meanwhile it has grown apace addressing itself to. and supplying, as regards education, the wants of all classes of the community.

I believe that now it is so firmly rooted in the soil of Kentucky

that no ordinary agency could accomplish its overthrow.

In conclusion I beg to thank you for your combined confidence and for the continued support which you have always given me.

I commend to your fostering care the institution, committed by the Commonwealth to your supervision and cortrol. Your trust is an important one, requiring wisdom, integrity, and administrative ability of a high order. Hitherto these have not been wanting, may your administration be as successful in the future as in the past and posterity will have reason to bless you while they commend your work. You are building not for a year nor for years but for all time.

You are important factors in shaping the destiny and in molding the character of the citizens of this Commonwealth.

When your work comes to be tried as if by fire may it not suffer loss, but may it stand firm and shine brighter as the ages come and go.

I have the honor to be

Your Ob't, servant

(signed) James K. Patterson.

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Gen. McClellan's Change of Base

The peninsular campaign of 1862 is no doubt by the majority of people ill understood. Begging as it did with Gen McClellan's advance from Ft. Monroe and ending virtually with the paradoxical "change of base" it cannot fail to prove very interesting to the student of stratigy as well as being one of the most intricate and complicated campaigns of the civil war. After the first Bull-Run when General McClellan was placed in command of all the armies of the United States, he advocated the movement on the part of the "Army of the Potomac by way of the Peninsula using the Pamunkey as a line of supply intending if he failed to capture Richmond by a direct assault from the line of the Chickahominy to move rapidly south and assail Richmond from the south east using the James as a line of supply in this case vessells loaded with supplies would simply ply the James instead of the York. Should this course be pursued it would not to any

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great extent inconvenience the Army of the Potomac so far as supplies were concerned. but it would require a flank march by McClellan made necessarily in front of a concentrated enemy. For the Confederate army were at that time holding the Richmond lines on the west side of the Chickahominy either of these two lines the Pamunkey or James would require less force to protect them than a land route and for this reason together with others they were preferred and adopted by the General commanding at the opening of the Campaign when the army of the Potomac embarked at Washington proceeding to their advance up the Peninsula. Gen McClellan was still in command of the entire Federal Army. When Gen McClellan reached Ft Monroe he found that he had been relieved of his command except of the army of the Potomac of which he was in immediate command this did not include (the army of the Potomac) the corps of McD well then stationed near Fredricksburg

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to counterbalance any attempt on the part of the Confederate army in the Shenandoah Valley in the direction of Washington. This action of the War Department not only prevented any concentration of action by all the Federal forces then in Virginia, towards the objective point of the campaign, but destroyed the unity of the army as such and rendered it easy for the enemy to strike each in detail as it seemed most advantageous to him. This error alluded to by Gen McClellan, six months later in his "Harrison-Barrister" is one too often committed, and one whose lamentable, results soon after became painfully apparent. When this State of affairs became known to the General-in-Chief, two courses were open to him 1st to remain in the Peninsula until sufficient troops could be gotten ready and sent forward, or 2d to advance with the force then under his command, and that if he found that the lines of Richmond were too strong to be carried to take

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reinforcement by the corps of McDowell at or near Fredricksburg before proceeding to lay siege to the confederate capital. Gen McClellan chose the latter course. Delayed at Yorktown and checked at Williamsburg at last the Federal Army reached the Chickahominy. While in the works in the vicinity of Fair Oaks Station seems to have conceived the plan of crossing with his left wing on it through the remainder of his force over the River, when this was accomplished, by the repeated despaches from Washington that McDowell's corps would push rapidly forward as soon as the Valley could be cleared of confederate forces large enough to threaten Washington, Gen McClellan was induced to leave Fitz John Porter's corps north of the River, thus extending his right to meet McDowell. Gen McClellan seems to have been aware of the fearfulness of the danger of this position from the fact that McDowell might not arrive as soon as Jackson. These fears on the

part of Gen McClellan proved not to be authentic
foundation when the arrival of such a force
as D.H. & A.P. Hill struck Porter at Beaver Dam
and subsequently at Powhite Creek. Just at this
juncture the Peninsular Campaign assumes an
aspect which is perplexing in the extreme Accord-
-ing to General McClellan the premeditated
change of base from the York to the James then
began. Supplies had been sent to Harrisons
Landing six days before. The question now
resolves itself in to this: 1st Did the change of
base take place independent of the Confederate
army, and was the fact of Jackson's and A.P.
Hill's attack simply a coincidence, the two occur-
-ing simultaneously? or 2d Did the change of
base become a military necessity in consequence of
this movement of Jackson and Hill? Was it a
retreat? or was it a change of base? or did
McClellan finding no sign of Gen McDowell's
arrival take this opportunity to rectify his position

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or did these two causes act together producing the movement From the fact that General McClellan had sent supplies to the James River is sufficient reason for the lowing that a change of base was in anticipation, but so far as that was concerned this might have been done with or without the expectation that the movement would be a necessary one. Again from the fact that the Army of the Potomac, held its ground in every engagement except Beaver Dam, is additional reason for believing that the change would have been effected regardless of the movements of General Lee's Army. When it was effected the change succesfully made under adverse circumstances would certainly have done credit to some of the successors who ridiculed the ability and attainments of the man with whom although the administration was not in sympathy wrote and confided his conviction to the Chief Executive "with sincerity towards him and with love for his country"

Gentlemen of the Intercollegiate Association of Kentucky:

I was unavoidably absent when, about a year ago, this Association was organized. The original promoters of the movement deserve much credit for their initiative in this work. The inspiration was a happy thought and I am glad that it found concrete expression in the assemblage which meets here today. I thank you that in my absence your choice fell upon me as the first President of the Association. Though long identified with education in Kentucky, longer, perhaps, than any other person present, I had not been brought into intimate personal or official relations with many of you. Still, I have known more or less of the work being done in institutions outside of our own. While progress has been made in common school, high school and collegiate education, this progress in Kentucky has not been commensurate with the general advance made in other states, east and west and north and south. Wealth has increased, industrial enterprise has been quickened and intensified, commerce, inter-state and international, has grown far beyond the anticipations of half a century ago. Educational activity, especially in the north and north-west, has kept pace with these developments and in instances not a few, has led and stimulated and made possible the enormous agricultural and manufacturing enterprises which have ministered to the wealth and well being of the nation. The introduction of the railway and of steam navigation, by increasing the facilities of transportation, has brought vast additional areas under cultivation at home and multiplied markets abroad. The application of science to Agriculture and the mechanic arts has given an impetus to mining and smelting and forging which has made the United States of America the largest producers and the largest consumers of the products of these industries in the world.

Until the middle of the last century, education in American Colleges and Universities had been the outgrowth of the inherited systems of education known as the trivium and quadriviun, which obtained among the Greeks and the Romans, modified by the school men and developed by the master minds of the Renaissance. The Classics, Mathematics, Physics, Mental and Moral Philosophy, History and Political

Economy, Astronomy, with the rudimentary natural sciences, as far as developed, and with one or two modern languages, formed the basis of instruction in European and American colleges. The instruction offered by these colleges was designed to supply what was known in educational phraseology as a liberal education.

The change in economic conditions above referred to led to a new departure in education in America. The leader in this movement was Justin S. Morrill of Vermont, then a Representative in the Congress of the United States. Without proscribing or disparaging classical or philosophical studies, he conceived that more attention should be given to those subjects which utilize for the public good the known and discoverable laws and processes of nature. His conceptions were embodied in the Act known as the Morrill Law, which was intended to satisfy the demands growing out of altered existing conditions, and upon this foundation more than fifty state colleges and universities have been established. He saw that in the rapid alienation of the public lands, through settlement and gratuitous allotment to railway corporations, that the public domain was being rapidly exhausted. He accordingly determined to dedicate a part of this rapidly diminishing asset to the education of the American people along new lines, and according to the necessities imposed by geographic and economic conditions peculiar to the Western Hemisphere. He provided that land scrip should be given to the several states, in proportion to population, for the endowment of institutions of learning wherein should be taught those branches of learning related to agriculture and the mechanic arts, without excluding classical and other scientific studies, and including military tactics, for the liberal and practical education of the industrial classes in the several pursuits and professions of life. This was a conception of university work, such as had not yet been contemplated, the existing body of human knowledge, whether of mind or of matter, hypothetically assumed or actually realized, was to be made available for appropriation by the learner, and the far greater domain of nature, unknown, or partially known, was to become the subject of investigation through observation and experiment

and lead to new fields of discovery. The older institutions of learning in the country looked somewhat askance upon this innovation, but when within a few years they saw an interpretation given to the legislation of Mr. Morrill which did not confine mechanic arts to blacksmithing, carpentry and kindred handicrafts, which went beyond the still more advanced conception of manual training, and found its ultimate application in engineering, mechanical, electrical, civil, chemical, sanitary and mining, when they saw, as preliminary and preparatory to these, extended courses in Mathematics, Chemistry and Physics, reaching far above and beyond those of the older colleges and universities, they began to show some consideration for the new, and to accord it a somewhat qualified recognition among the educational agencies of the country. When, moreover, they saw that the foundations of a science of Agriculture were being laid, in extended courses of Botany, Comparative Anatomy, Physiology, Biology, Chemistry, and Entomology, that through these, barren fields were made fertile, the products of animal and vegetable industry improved in quality, multiplied in quantity and increased manifold in commercial value, the exclusiveness of the old accorded a more or less welcome recognition to the new. Ere long the new institutions, retaining for the most part the classics and the philosophies of the old, established chemical, physical and engineering laboratories, on a scale of expenditure and completeness far beyond the resources of hitherto existing institutions, and set the pace for scientific study and investigation in America. They made it manifest that classical and philosophical attainments and distinction could exist side by side with thorough training and far reaching acquirements in natural sciences and that these latter found an application in the development of agriculture and manufacturing industry out of all proportion to the original conception on which the legislation of 1862 was based.

The effect upon the older institutions of learning has been most marked and most beneficial. Harvard and Yale, Princeton and Columbia, and others which were regarded as the principal exponents of classical and philosophical learning, were stimulated to a larger and

more wholesome activity. They bestirred themselves to improve the courses of learning hitherto existing and dominant, and to add thereto extended courses in natural science, in connection with laboratories large, varied and well equipped. As a consequence of this, courses much more extended and much more thorough in all natural sciences have been provided in connection with these universities and a generous rivalry has been established between the new and the old. The older institutions have lost nothing, but have gained immeasurably by the competition which they encountered and to which they were forced to adjust themselves, or else see the prestige which they had hitherto won, disappear. The result is that whatever was valuable in the new has been adopted and utilized by the old. One consequence has been that the endowments of the older institutions of learning have been largely increased. This was indispensable in order to enable them to hold their own with the newer institutions established under the land grant of 1862.

It was rightly apprehended that the incomes accruing to the state colleges and univerities from the Federal Government under the Act of 1862 and acts supplementary thereto, would be supplemented very largely by aid from the states which had accepted the trust of maintaining these institutions of learning. Every State in the Union, without exception, has dealt more or less liberally with these institutions of learning, Wisconsin, Illinois, New York, Nebarska, Missouri, Ohio, Kansas, California, Minnesota, and Michigan have given hundreds of thousands of dollars for the material equipment and maintenance of their respective colleges and universities. Cornell University receives from State and Federal aid an annual income of a million and a half of dollars. Wisconsin gives to its University $560,000. yearly, in addition to millions that have been given for buildings and equipment. The University of California is provided with more than a million dollars annually for maintenance and current expenses.

The denominational schools are therefore confronted with a condition and not with a theory. The State Universities and Colleges exist in every state in the Union and they have come to stay. The de-

nominational schools represent large and wealthy ecclesiastical constituencies. To them they must appeal for largely increased resources, in order to improve the facilities for instruction, which will enable them to compete with the State institutions. I may therefore, without prejudice, today insist that this is a duty laid upon you who represent the older institutions of the Commonwealth, institutions in existence half a century before the State College came into being.

In immediate and close connection with these thoughts hastily put together, is the standard of admission, a subject which, I understand, will be submitted for your consideration. Public school education touches a higher level in Kentucky than it did forty years ago, High Schools were then, except in rare instances, non-existent. There are now many High Schools in the Commonwealth, doing advanced work of a thorough character. Louisville, Owensboro, Paducah, Ashland and xx other places that might be named, turn out pupils well prepared for Freshman work in College. We have been gradually lifting our standards of admission and hope in the near future to raise it still higher. The State College is required by law to maintain an Academy for preparatory instruction in order to bridge over the interval between the Common School and the Freshman Class. Twenty-five years ago the relative proportion of preparatory students to students in the College proper was about 80 to 20 percent. Today these proportions are reversed. The proportion of preparatory to college students was last year between 16 and 20 percent to 80 percent of college students. By and by we hope to eliminate the preparatory element altogether and make our work exclusively collegiate. In the effort toraise the standard, we ask your co-operation. Let the Academy and the High School do the preparatory work for all the institutions for higher education. When we can require Algebra, elementary and advanced, Plane and Solid Geometry, and Plane Trigonometry in Mathematics; Caesar, Sallust, Virgil, and Cicero in Latin; and the Anabasis Memorabilia and Homer or their equivalents in Greek, with two years of French and two years of German, one year of Physics and one year of Chemistry, as conditions of admission to the Freshman Class, we shall

begin to do collegiate and university work of a respectable character.

The State College of Kentucky does a work peculiar in some respects to itself. Its main object is to ~~as~~ educate scientists and engineers, but in doing this, it found it altogether inexpedient to detach itself from the old learning, from the learning that forms the basis of culture, from the learning which forms the best of all possible foundations upon which to build scientific and engineering training. I have held and still hold that a liberal knowledge of Latin and of Greek and of Metaphysics and of Moral Philosophy and if History, form the essentials of a well rounded education, whether it be designated liberal or practical. These subjects, consequently, we have retained, as auxiliary to the main end in view, namely, the education and the training of men who shall promote industry in agriculture, in engineering, in manufacturing enterprise, and in the commerce of exchange. It still remains with you to do the bulk of the education necessary for the minister, the lawyer, the physician, but in supplying this, you will find an ever increasing necessity for associating therewith a large and liberal training and grounding in the knowledge of nature and of natural laws. The professional man becomes more liberal, through a large acquaintance with physical science in its varied relations. The scientist becomes more reverent through a large acquaintance with classics and philosophy, and with the elements of natural and revealed religion. The two are counterparts, necessary counterparts, one of the other and should not be dissociated.

There is therefore in the institutions represented here today no necessary antagonism, no ground for opposition. On the contrary, there is every reason why we should work together harmoniously and for the attainment of common ends. These ends are in the main to improve and to build up our industries, to increase our wealth, but to the end that these be subordinated to the larger and nobler and manlier culture which makes of men good and intelligent citizens of their respective Commonwealths and above all, educated them as the heirs of an immortal life.

Cosmogonies as well as creeds which have commended themselves to the acceptance and allegiance of the learned for centuries have been assailed on every hand, not with bitterness and ribaldry as during the eighteenth century, but in the main with calmness and judicial impartiality of reverent seekers after truth. Opinions and interpretations of nature, of philosophy and of theology, which were thought to be established upon an impregnable foundation have been battered and breached by the assaults of the higher criticism, of the Biologist, the Chemist, the Physicist and the moralist. Evolution is in the air all around us. It invades the interpretation of scripture, the psychology and ethics and aesthetics of the mind, the physical structure of the universe. Matter, it is alleged, holds the potentiality of life, the molecule has been resolved into the atom, the atom into the electron, with possibly more to follow.

While theological creeds and physical cosmogonies are thrown into the melting pot, it is difficult to forecast what the result will be. Let us hope that the dross and the tin will be purged and that the gold will remain. But the men who are to preside over the process of reconstruction must receive from our colleges and universities the largest education and the broadest culture. We must see to it that the Christian faith in which we were brought up is not lightly handled and lightly cast aside. We must see to it that our physical education and culture is neither narrow nor godless. We must educate our theologians to an wholesome and adequate knowledge of science and our scientists to a wholesome and adequate knowledge of natural and revealed religion. Each contestant imbued with an adequate knowledge of the fundamental principles and learning upon which his opponent rests his case, must be able to meet his opponent on common ground. Already there are gratifying indications that a reaction from the extreme views of the agnostic held forty years ago has set in. Forty years ago scarcely a man in the French Academy was a theist, now scarcely a man in the Academy is an Agnostic.

But while broad scholarship is necessary, depth must not be

sacrificed to breadth. There is much intimate and critical, much microscopic scholarship in classics nowadays, delicate shades of meaning brought out by philological niceties abound, but we see little of the massive scholarship of Stephens and the Scaligers, of Lipsius and Turnebus, of Buchanan and Bembo, of the period of the revival of letters, and little of the massive scholarship of Wolff and Leibnitz, of Porson and Bentley, of Johnson and Gaisford and Jebb of later years.

I sincerely hope that this Association will be productive of much good, that it will bring those who are engaged in a common cause closer together and enable us to know each other better. I trust that our meetings will develop the fact that there is no line of cleavage, no room for jealousy, that we will each endeavor to do faithful, honest and honorable work, for the good of our Commonwealth, and of the nation. A great trust has been delegated to us. Let us see to it that with singleness of heart we discharge the duties laid upon us as those who must give to the Master an account of our stewardship.

The apprehensions excited within the last two or three weeks regarding what has been denominated the Moroccan question, seem in great measure to have subsided. Before expressing an opinion upon the actual situation, it may be well to recall some facts relating to Morocco.

The territory which has given rise to the dispute which was temporarily adjusted by the conference at Algeciras some years ago, occupies the districts in north-western Africa known in the time of the Romans as Mauretania and Tingitania, and covers about 200,000 square miles. It fell under the power of the Romans about a century before the Christian era, and remained in their possession until the fifth century, A.D., when it was overrun by the Vandals who extended their power over the greater part of northern Africa, and established a kingdom which lasted until the country was brought under the sway of the Saracens in the seventh and eighth centuries. The Moorish conquest of Spain which followed shortly after was accomplished by the Moors who had embraced Mohammedanism. Their domination continued, in parts of Spain at least, until the final conquest of Granada during the reign of Ferdinand and Isabella, late in the fifteenth century.

The Moors have been among the least progressive of the adherents of Islam. The government has for centuries been an absolute monarchy, the Emperor or Emir being possessed of absolute authority, both temporal and spiritual. For centuries they and their immediate neighbors east of them, the Algerenes, were a constant terror to the commerce of the Mediterranean and of that part of the Atlantic Ocean lying immediately west of Europe. At one time nearly every country in Christendom was obliged to pay tribute in order to secure exemption from capture upon the high seas. The crews of the captured vessels were subjected to all manner

of privations and cruelties and when not ransomed at a heavy cost were reduced to the most abject slavery.

Algeria became a province of France more than three-quarters of a century ago. Morocco, however, continued a more or less nominal and precarious independence. The mis-government of Morocco has subjected European merchants to great indignities and heavy losses. The foreign consuls at Tangier, Fez, Morocco and Mequinez found it necessary to intervene in their behalf and were consequently involved in trouble with the marauding tribes of the interior, as well as with the government, in their efforts to protect the subjects of their respective nationalities.

For sometime previous to the beginning of the present century, the impression prevailed in Europe generally that no permanent change for the better could take place except by the partition of the empire. France, because of her occupation of Algeria, was in a position to exercise a predominant influence upon that part of the Empire. Spain had claims upon the north-west, and Germany had already professed to have important interests upon the coast. These conflicting claims at one time seemed likely to involve France and Germany in war, but through the good offices of Great Britain, whose commercial interests in Western Morocco perhaps out-weighed that of the other European powers put together, a conference was convened at Algeciras and important conclusions were reached, embodied in an informal treaty to which the signatures of the contracting powers were attached. Germany, without renouncing her claims in the event of an ultimate partition of the Empire, agreed that a mandate should be given to France and Spain to preserve the peace within the boundaries of Morocco subject to certain important limitations imposed by the great powers.

But the treaty of Algeciras did not bring peace

to the distracted Shereefian Empire. The central authority was unable to repress the turbulence of the tribes which occupied the interior and frequent inroads were made upon the European settlements which the central power was unable to protect. France, with the concurrence of England and the acquiescence of Spain and the sullen consent of Germany, was most prominent in her efforts to protect not only her own citizens but those of other nationalities. Spain and Germany affected to imagine that France was playing too prominent a part and that the French Republic was looking to the ultimate absorption of the entire Empire at no distant day. Germany determined to be on hand, in the event of a crisis and about six weeks ago sent a vessel of the German navy to occupy the harbor of Agadir. This was done in order to make it manifest to the great powers that whenever the partition of the Empire should take place, Germany was prepared to assert her claim. The action of Germany was construed by all the powers interested to signify a desire to precipitate a crisis. The time seemed opportune for German action. Great Britain was in the throes of a domestic revolution, growing out of the determination of the House of Commons to relegate to an inferior position of authority and control the House of Lords.

The fight between the contending parties was fierce and implacable. The German Emperor believed that the antagonism was so irreconcilable that no question of foreign or domestic policy could bring them together to act in unison. In this, however, he was disappointed; the declaration made by Premier Asquith and by Mr. Balfour, the leader of the Opposition, made it quite apparent that however the great parties might disagree upon internal policy, they would present a united front upon all questions involving foreign relations. These declarations made it quite apparent that Great Britain would stand by France in any controversy with the

German Empire. The treaty of alliance between France and Russia made it equally apparent that Russia would not abandon her ally to the tender mercies of Germany.

Emperor William was absent on a cruise in the Baltic at the time that the crisis became most acute. Upon return to Swinemunde a few days ago, when informed of the situation, it became quite apparent to him that he had misinterpreted the attitude of Great Britain. His absence during the critical period afforded a plausible opportunity for retracing his steps, though doubtless everything that occurred was done by his cognizance and he must be presumed to have been aware of every step that was taken.

The outlook today is decidedly more pacific than it was two weeks ago. Spain, under the modifying influence of Great Britain, will not provoke an appeal to arms. France strong in the consciensness of the moral and material support of the British Empire, maintains an equanimity foreign to her ordinary habit of dealing with such a crisis. On the other hand, Austria, which was complimented by Emperor William at the conclusion of the conferance at Algeciras as a "brilliant second", would hesitate long before making common cause with her potent ally, while Italy, the third member of the Triple Alliance, has for years shown a somewhat slack allegiance to her obligations. Germany, in the event of a partition of the Empire of Morocco, would undoubtedly be entitled to a fair share of the spoils. She intimates, however, her willingness to negotiate upon a somewhat different basis, viz: To allow France a free hand in Morocco, provided she can obtain, by way of compensation, a part of the French Congo adjacent to the Kameroons. The latter has been held by Germany some time as a colonial dependency and rectification of the frontier would give her an enlarged coast line, with a fairly good harbor, which by the expenditure of a large sum of money could be made an impregnable <u>place d'armes</u>.

It is more than probable that negotiations would be entertained by France upon that basis, with the active concurrence and consent of Great Britain. The British do not want a strong out-post of Germany at Agadir. The harbor is the best in south-western Morocco and commands the trade lines between Great Britain and the Cape of Good Hope and South America. She could not afford to have a first-class fortress within gunshot of her great trade routes and commanding them.

The probable outcome then will be that a second conference will be called to revise the treaty of Algeciras, continuing the mandate to France and Spain to preserve the peace, and upon condition that Germany withdraws all claims to future interference in Morocco, a rectification of the frontier on the French Congo and the Cameroons. This would seem to be an equitable solution of the difficulties involved and would at least until the German navy is further strengthened, by additional vessels, preserve the peace of Europe.

and Transylvania University property and trust.

KENTUCKY UNIVERSITY.

A Plain Statement of Facts.

"Bacon College," founded by certain members of the Christian Church, (not by that church, or in any manner by its authority,) fell into decay before January 7, 1858, when John B. Bowman, having secured, by his individual exertions and personal influence, an endowment of $150,000, mostly from liberal members of his church, obtained from the General Assembly of Kentucky the charter of Kentucky University, which, while it professed to be an amendment of the charter of Bacon College, was avowedly a new charter:

1. Because it stated in the preamble, "whereas, it is desired to establish a first-class University" (not a new college) "on a more modern, American basis."

2. In Section 3d, it is stated that powers are given to its Curators "for the purpose of promoting the cause of education in all its branches, and extending the sphere of science and Christian morality.

Section 14 provides that, "All lands, money, or other property which may, by donation, devise, deed of gift, or otherwise be contributed to said University, shall be strictly applied according to the instructions given by the donor or testator."

It is enacted in Section 8, "For the ownership and control of said University, at least two-thirds of the Board of Curators shall be members of the Christian Church in Kentucky." And on this clause most of those who are now trying to violate its trusts base their claim for an exclusive, fee-simple, ownership on the part of the Christian Church.

But the first Board of Curators who accepted this charter showed, in an address which they issued to the public at large, and particularly "to the friends of education in the West and South," that they had a more rational and just view of the kind of ownership with which they had been invested:

While stating that it was the purpose of "Bro. John B. Bowman to devote his life and his energies" to building up this University, they pledged themselves "that no sectional or sectarian element shall be a constituent of its organization;" but that, in their favorable location, they would build up a first-class University, which, in the plan and details of its organization, is designed to be commensurate with the educational wants of the people" (not of the Christian Church) "who are rapidly taking possession of their glorious heritage."

They propose to give to all "such a liberal education as the times and peculiar circumstances of our age and country demand;" * * * "to build upon a more modern basis an institution equal to any in America; an institution for young men instead of boys, with a high grade of scholarship, and which, especially, in its ministerial, normal, scientific and agricultural departments, will meet the wants of our young giant West," &c.

Under this liberal charter and these pledges, they confidently appealed to "the sympathies and co-operation of every Christian and philanthropist." And Mr. Bowman, being the advocate for, as he had also been the originator of this magnificent and munificent scheme, soon secured endowments, under these new pledges, which at once placed the new University on a most elevated position.

The burning of the college building at Harrodsburg caused the institution to be removed to Lexington in the year 1865. In the published announcement of the University for that year Mr. Bowman, in his annual report to the Curators, states: "About nine years ago I conceived the idea of building up in Kentucky a University, founded upon broad, liberal principles, with a pecuniary basis of not less than half a million dollars, with which to begin; with an organization commensurate, in its plans and details, with the wants of our great and growing country, and our advancing civilization; an institution peculiarly modern, American and Christian in its character, free, open and accessible to the humblest youth of every creed and latitude." And this great and liberal plan was at that time again (as it had been all the time) approved by the Curators, as it was also by the church which the majority of them represented, as well as by the people at large; so that donations were freely and liberally made by persons of all creeds and of all parties to promote this great public enterprise. The Trustees of Transylvania University were thus induced to consolidate that old State Institution with the new University, and the General Assembly made the Agricultural and Mechanical School one of its Colleges.

Thus, by the untiring and enlightened exertions of one of our citizens the basis of a grand educational institution for broad, public improvement and public benefit, was firmly laid. All parties, all sects, looked with pride and satisfaction at its increasing classes, its extending means of instruction; for all felt they had a common interest in it, and a common right to enjoy its benefits.

Citizens of Lexington gave over $100,000 to purchase grounds for the location of the Agricultural College, and citizens of Bourbon County gave $40,000 to increase their buildings.

No one imagined that Curators, in whose hands the whole property was placed, simply in trust, to be applied strictly to the purposes for which it was given, would ever set up any other ownership; or that the church, which, by its charter, a majority of them [illegible] represented in this ownership, would ever attempt to grasp for its own peculiar benefit and profit that which was so liberally given for public, unsectarian education alone.

But shortly after this grand basis of an endowment had been secured by the exertions of Mr. Bowman, a clique of preachers of this church, several of whom had recently removed to Kentucky from other States, and none of whom had ever contributed to the endowment, began to see how good a thing it might be for their church, and consequently, for themselves, who wielded a large influence amongst their brethren, could they manage to establish a peculiar and exclusive right to the University and its property.

With this motive the present war was began upon the Regent and upon the University, and it is now waged with a bitterness which caused many of them to declare that if they cannot get the exclusive possession of the University, they will destroy it! Foiled before the Legislature, these misguided men and their deluded followers carried their ecclesiastical zeal into political squabbles for place and power, although those of them who have ordinary information must know that the courts of justice are the only tribunals before which they should seek the restoration of any rights they may have had in the property of the University. Apart from their gross violation of one of the fundamental principles of our free institutions, viz: that which forbids any ecclesiastical control of our political affairs, these men show great ignorance or want of respect for the vested rights which are in the custody of the Curators of the University.

The Legislature might, by a possibility, pass an act giving the University up to be governed and owned exclusively by those who rule the Christian Church of Kentucky, but this would not relieve the present Board of Curators from the duty of defending the trusts in their hands by appeal to the courts, and that appeal would doubtless elicit the decision that property given for specific, public purposes, cannot be alienated to any other uses.

The facts as to the purposes for which the University property was given in trust are briefly as follows:

1. That first obtained by Mr. B. from members of the Christian Church was avowedly for a University on a broad and liberal basis, open and free to all sects and parties, a great public educational institution.

2. That which was transferred to the Curators of Kentucky University by the Trustees of Transylvania University was transferred under the same pledges; and moreover, with this additional provision in the act of consolidation that the Curators of Kentucky University shall "be bound by the trusts and conditions to which said Trustees are subject." The consolidation to be annulled and the property restored in case of any violation.

As all the property of Transylvania University was bound, by its charters and terms of its several endowments, to the purposes of public education alone, to the spread and promotion of learning and science, the Curators of Kentucky University are debarred from applying it to any other purposes.

3. The Agricultural and Mechanical College is specifically removed, by law, from any ecclesiastical control, and its large estate was all contributed under this prohibition.

It is evident that the present course of the influential agitators of the Christian Church is destructive of great public interests and suicidal to themselves; and that the only final demonstration which will be made by their violent attempts to gain an undue ecclesiastical control in politics, and over our great State University, will be that these ruling members of their church cannot be considered as safe custodians of public trusts.

Until this most unfortunate crusade began, it was the pride of all good members of the church that they had been considered worthy to receive and to hold in trust so much of the people's property which they had devoted to great public beneficial purposes; and the incidental and real advantages to their church and to them from this great display of public confidence would have been far greater than any good which would inure to them from such a close, exclusive, fee-simple ownership of the property of Kentucky University as is now openly and coolly claimed for their church by the very enterprising men who seem to control a considerable minority of that denomination.

We can congratulate the people of Kentucky on this fact, however; that while so great a clamor is raised on this question, and so many of these church members defile their hands with political manœuvering—the great body of their church desire no such ownership as is claimed for them by the misguided elders.

* up to about 1876-8

† About 1870 it had more than 700 pupils, under the liberal management. As a Christian denominational institution its pupils scarcely reached 100.

Liston	840	Kastle	3,000
Gnocchio	1200	Peter	3000
Wallis	780	Curtis	3000
Gnocchio	720	Garm	3000
Utterback	720	Allen	3000
Grace Moore	720	Irvine	3000
Carmel	600	Goode	3000
Hutchcroft	720	Hoopes	3000
Ferry	720	Matthews	3000
Hemel	360	Roberts	3000
Murray	600		$32,000
Kesheman	720		
McDermel	600		
Vial	600		

9,900

32,000

Pages 162 + 163, 164

Newspapermen insert Patterson's Speech

Gentlemen of the Press Association of Kentucky:

You have imposed upon me no easy task when you asked me to welcome the Press Association to the City of Lexington and to the State University of this Commonwealth. It is said that no less than seven cities in ancient Greece claimed to be the birthplace of the first and the greatest of all the poets of ancient or modern times. It not unfrequently happens that not seven cities but a multiple of seven claim the honor of the annual and mid-winter meetings of the Press Association of Kentucky. We esteem ourselves fortunate today that the State University of Kentucky has the honor of welcoming you as its guests, and that thus are brought into intimate association and fellowship the two great educational interests of the State. You, as factors in the education and uplift of our citizenship, are brought into daily contact with the living thought of the men and of the women, and I may add,

Sow copy

Return to Davis - Sure

47-M-64

Your coming as our guests is nearly coincident with the date of the limit reached by the sun in his annual journey south. You come under wintry skies and with mother earth covered with a mantle of white, while the winds sweep shrill and chill among the trees, which have cast their summer foliage long ago, but you come to warm and generous hearts, to open fire-sides and to hospitable homes.

of the children, domiciled within our boundaries. You inform, you instruct, you educate and you develop the intellect and the morals, the social instincts and the political relationships of a people representing the best blood of the nation. The daily and weekly issues of the press and their arrival in the homesteads of our people affect every rank and condition of life. Eagerly waited for and eagerly read, they quicken the pulse and stimulate the mental energy of thousands upon thousands. They make them acquainted with themselves and their immediate surroundings and with the larger concentric circles which form this mighty nation and this beautiful world of ours.

(University stand)

" The State University, standing at the head of the educational system of Kentucky, its priority and precedence recognized by the Government of the State and by the affiliated colleges and universities with which it stands in happy and co-operative relationship, receives and educates the young men

and the young women who come hither year by year, selected by competitive examination and sent by their respective counties. It receives and educates those who have passed with credit through the high schools and are ready to enter with credit upon a career of further development. It opens its doors wide to all and sundry who are prepared to pass its entrance examinations, whether representatives of the counties or graduates of the High Schools, or educated elsewhere and under different conditions, to the benefits afforded through the liberal initiative of the general goverment, supplemented by the liberality of successive legislatures of the state. Providing the necessary training and discipline in literature and in art, in science pure and applied, it lays the foundations broad and deep for intellectual eminence and for leadership in the practical pursuits and professions of life.

two brought together

"It is therefore peculiarly fitting that these two great agencies in the promotion of the general good and in the uplift of the intelligence of our people, should be brought together on an occasion so auspicious as this. In a pre-eminent degree you address yourselves day by day, week by week, and year by year, to the development and the conservation of the best interests of the state. You endeavor to inform the intellect and to guide the activities of the mind along the lines and through the channels most likely to realize the best results in individual, in social and in political morality, to the end that men and women may become good citizens who know that every right involves a corresponding duty and that the end of wholesome government is attained when freedom is properly co-ordinated with authority. In this task you accord a generous approval to that which is right and fearlessly expose that which is evil in theory and in practice. You endeavor to evoke and to cultivate the best

instincts of humanity, guiding and directing their energies to the attainment of the true and the bdautiful and the good. You encourage and stimulatc and strengthen all loyal and praiseworthy efforts to develop the rescurces and to build up the material prosperity of the municipality, the county, the state and the nation. And in the discussion of the fundamental principles and groundwork upon which all the moral and material progress must be builded, you recognize and enforce the conviction that in the principles of our holy religion a scund and wholesome morality must find its ultimate sanction. the scope of your activity then is in many respects wider and deeper, and I may add, higher than the scope of any university education can be. (Small beginning)

(" All great enterprises have begun in very rudimentary stages. The interval between the log which carried the primi-

tive navigator across the narrow inlet of a bay, and the floating palace of 25,000 tons, propelled by quadruple engines developing 60,000 horse power, marks many stages of disappointment advance and experiment. The interval between the primitive apparatus used for the reduction of iron ore and the subsequent laborious processes by which it was converted into steel, and the blast furnaces, smelters and converters which make up the Carnegie plant in Western Pennsylvania, whose output every year is millions of tons of steel, marks many halting places, each of which economized labor and multiplied results. But the interval between these extremes is not greater than that between the rudimentary Tching-pao, issued in Pekin during the Tang dynasty, or the Acta Diurna of ancient Rome, which contained reports of great military achievements, elections, local judicial ~~processes~~ decrees and sacrifices, laboriously compiled and laboriously written for the information of the general public, and the thousands of printed sheets which issue daily from the Times

printing press, the New York Tribune and the Louisville Courier-Journal. The beginnings of the newspaper were equally rudimentary and equally circumscribed, and as the name newspaper indicates, the original intention was confined to the collection and dissemination of news only, occurrences which had taken place and accomplished facts. Many affect to believe that the function of the newspaper still is to disseminate information, and that there the role of its activity should cease, but by common consent the newspaper press of the last century and the newspaper press of today aim at something higher and nobler than the mere collection and dissemination of news. The recognised function today of the press is not only to inform, but to instruct and to educate and to enforce upon the individual and the body social, political and religious what men should think and what men should do. It is not sufficient to record the enactments of the legislative body,

but to instruct the legislator in regard to the expediency and the propriety and the justice and the beneficent results of his legislation. It is not enough to record the verdicts and the deliverances of courts, but by argument to support, to sustain and to maintain the integrity of the tribunals which interpret the law. It is not enough to place on daily record the procedure of the executive whose duty it is to execute the laws of the land." (what press can do) An enlightened press, guided by moral principle, will see to it that executive authority administers well and wisely wholesome laws interpreted by an incorruptible tribunal. The body of the citizenry which constitutes the nation is subject to aberration no less than the individual. Ever and anon swayed by sentiment and by passion, like the vessel upon the high seas, they need the guidance of a competent pilot to steer them through troubled waters and bring them in safety to the haven of their hope and of their wishes.

"This conception of the functions and the duties of the daily press I believe to be a growing one. The press is the fourth estate and the fourth estate rules the nation and rules the world. No legislature or parliament or congress in any nation in Christendom would dare to legislate against the unanimous opinion of the press. If they did, their legislation would speedily be their own undoing. No courts in Christendom would dare to utter deliverances upon questions of law and of fact affecting the destinies of individuals and communities ,which outraged the sense of justice of a nation. And no executive, whatever his prestige and his power, would dare to assume an authority not conferred upon him by law or to carry out the mandates of the law with harshness and with cruelty. If so, his authority would be of brief duration.

"From this point of view then, I think that you (most important chair) gentlemen will concur with me that the editorial chair is the most important position which a man can occupy in a great and

free commonwealth. His duties are manifold, his responsibilities great. The faculty of the State University have under their tuition and guidance classes relatively small in number. Your daily classes comprise the whole citizenship of a town, a county a state and a nation. Where we address and instruct and develop the intellects of a dozen or a score, you perform like duties in a kindred sense with auditors who number hundreds and thousands and millions. The average citizen depends very largely not only for his facts, but for the judgment which he passes upon them, upon the initiative of the newspaper. The press is responsible for the facts which it gives to the public, and the interpretation which it places thereon. Facts and interpretations alike are received, generally speaking, with implicit and unquestioned confidence by those who read and assimilate. How important then that your moral sense should be properly developed and that your moral sanction should rest upon principles of rectitude enduring as the everlasting hills.

 (later's influence)

("The newspaper has developed a potency among the various branches of the English-speaking race - Great Britain, the United States, Canada and Australia - which exists nowhere else. The influence of the newspaper of Continental Europe, even in France where the greatest degree of personal and political freedom exists, is in no wise comparable with that which has obtained among the great branches of the Anglo-Saxon stock. In the mother country and among our own people, the press may without exaggeration by said to rule. Benjamin Franklin, James Watson Webb, James Bennett, Horace Greeley, George D. Prentice, and Henry Watterson on this side of the Atlantic, Francis Jeffrey, John Wilson Croker, Thaddeus Delane, Christopher North and Lord Northcliffe on the other side, have formed public opinion, made and un-made presidents and cabinets, and from the editorial chair have ruled the destinies of a mighty race, and the day of their soversignty is not yet ended. Mistaken ideals have sometimes led them astray, but their hearts have been in the right direction and their

heads are strong.

"One of the functions of the University is to provide men with an education, broad, liberal, comprehensive, who shall become leaders of the press, men who from the editorial chair shall mould the thought and determine the characters of the millions who rule this mighty nation. I do not ignore the influence of the pulpit, another potent leverage for the education and the elevation of mankind, but the pulpit deals with the spiritual and religious side of human nature and does not fall within the scope of our present consideration.

[welcome to ace]

"It is therefore with no ordinary feelings of pride and pleasure that I welcome you to this old historic town and to this seat of learning, young in years, but already famous in the history and in the life of Kentucky. We wish you to know from personal observation what the State Univer-

sity is, to what proportions it has grown, and what it can and will become with your encouragement and support. The University is yours; you can make it what you will. It occupies already an honored place among the institutions which form the American Association of State Universities. It must grow in order to keep pace with the growth of others. This expansion will depend upon you who control the articulate utterance of the people of this Commonwealth, mould their opinions and shape their destinies. Let us then be allies, co-workers in the education of our people, in their uplift in intelligence, in the quickening of their moral intuitions and perceptions, in the stimulus of a just pride and in the creation of high individual and social and political ideals, to the end that we may develop an educated intelligence and a sound morality and thereby obtain peace and plenty and good government, fearing God and having no other fear.

Press association

R S Speech

47-M-64

Mr. President, ladies and gentlemen:

You are doubtless surprised that one who is a resident neither of Vermont nor of New England nor of the Middle States should have the temerity, not to say presumption, to address an assemblage in his native state upon a subject so familiar and so dear to you as the work and character of your late distinguished fellow citizen, Justin S. Morrill. But by way of explanation, if not of apology, I may say that my presence here today is due to an invitation from my excellent friend, Dr. Buckham, the venerable head of the University of Vermont, and that the subject of my brief address to you today was suggested by him. If, therefore, I seem to you to "carry coals to Newcastle", the ineptitude of the situation is chargeable to him, rather than

to me. Inasmuch, however, as Vermont is one of the allied states of the Federal Union, an integral part of this great nation, Justin S. Morrill, though a son of Vermont, is a son of the great Republic, and though the state of his birth has an indubitable and special propriety in his nativity and in his citizenship, his statesmanship, his fame and the far-reaching consequences of his beneficent legislation are bounded by no state lines. They are conterminous with the boundaries ofhthe nation. Though Virginia was the birth-place of Washington and Jefferson, Massachusetts of Adams and Hancock, Kentucky the home of Henry Clay and the birth-place of Abraham Lincoln, these states had no exclusive propriety in their sons. Their services, the fame which they achieved, the glory which crowned their work, belong to

the nation. So, though to Vermont belongs the honor of giving birth to the illustrious son whose name will be forever associated with the fiscal system of 1861-5, and with the new departure in education which dates from 1862, economic conditions throughout the length and breadth of the land have been profoundly modified by the one and educational conditions by the other.

Though separated by more than a thousand miles, Vermont and Kentucky have the distinction in common of being the first states admitted into the Union after independence was won, the former in 1791 and the latter in 1792. Few Vermonters settle in Kentucky and fewer Kentuckians still in Vermont, but they have each contributed material elements of strength, out of proportion to their population, th the

up-building of other Commonwealths which now form integral parts of the United States of America, and be it remembered, the greatness of a state is not measured by its acreage or its population. Before the Christian era, Greece and Italy and Palestine were the homes of all that was worth anything in religion, in literature, in art, in philosophy, in organization and in arms, and the centres of their activities were in Jerusalem, in Attica and in Latium. Upon the sublime monotheism of the Hebrews, the philosophy, the drama and dialectic of the Greek, and the political organization and jurisprudence of Rome, is builded the civilization of modern times. And in the period known as the Renaissance the small states of Europe were the centres of the greatest classical/theological and literary activity.

Among the great men who made history during the last century, none will occupy a more conspicuous place in the history of the future than Justin S. Morrill. During this centenary year, his name has been commemorated and his record made the subject of eulogy in more than fifty colleges and universities of the United States of America, in everyone of which an enduring monument has been erected to his memory, not a shaft perpetuating mighty deeds in bronze, in marble or in granite, but the collegiate and university organizations which owe their existence to him.

Born at Strafford, Vermont, on the 14th day of April, 1810, the son of Nathaniel and Mary Hunt Morrial, a parentage respectable and well-to-do, descended from the good old Puritan stock whichformed the earliest settlements

in New England, and holding fast to the traditions and cult which made New England famous, and have enabled its people to impress themselves upon the history and the institutions of America, he possessed from the beginning all the elements of a successful career. His early education was obtained at the common schools and academies of the neighborhood. He had not the advantage of either college or university training, perhaps because his parents were unable to supply the necessary means for its attainment, and yet he may be regarded as a well educated man. His knowledge of the Latin classics, acquired in boyhood by the light of the fireplace after the day's work was done, his mastery of Blackstone, with allied subjects germane to the study of law, and his profound insight into the principles of political economy, laid a good foundation and materially aided him in obtaining distinction

and becoming a leader of men. At the age of fifteen he became a clerk in a store, and three years later want to Portland, Maine, in the employment of a West India merchant. In 1831, when twenty-one years of age, he returned to his native town and there formed a partnership with Jedediah Harris, its principal merchant, a partnerhsip which continued until 1855. Meanwhile he was employing his leisure hours in continuous self-improvement, familiarizing himself with the best accessible literature and devoting much time in the effort to master the great political problems of the day. His memory was singularly retentive and his intellectual capacity, improved by strenuous discipline, was of the best. Before he entered the halls of Congress, he might be considered one of the best equipped men of the day. His rare powers of observation and his unwearied patience in the

mastery of details were preparing him to become an invaluable ally or formidable opponent on the hustings or in the halls of legislation. His admirable mental equipoise, unswerving integrity, unostentatious dignity, uniform courtesy, tact, discretion, exalted patriotism and high moral character, made it manifest that he could wield an influence and exert a power in legislation, if opportunity afforded, such as few men of his day possessed.

In 1855 he was elected to succeed Hon. Andrew Tracy of Woodstock, as a member of the House of Representatives. He began his political life as a Whig, opposed to the extension of slavery, but hot an abolitionist as abolitionism was understood in the early stages of his political career. He deplored the repeal of the Missouri Compromise and viewed with alarm the growing estrangement

and increasing sectional bitterness which divided the north and the south. When, before his election to Congress, he was asked to define his position on the slavery question, in 1854, he replied as follows:

"I have no hesitation in saying that I am opposed to the admission of any more slave states to the Union, and in favor not only of restoring the restrictions of slavery up to the Missouri Compromise line, but also of extending that restriction to territories belonging to the United States. I am in favor of a radical change in the fugitive slave act, by which trial by jury should be secured and the right of habeas corpus."

And in his maiden speech in Congress, he expressed himself as follows:

"The South has its sins, quite the color of scarlet, but ought not to be made to bear these and the sins of the North also, which are not altogether white as the wool. The race of northern traders is not yet extinct. If the slave power is increased, it is because northern traders have largely contributed to that result."

Mr. Morrill had not forgotten that geographical conditions had had much to do with the introduction of slavery into the colonies, that citizens the New England and Middle States who owned slaves at the close of the War of Independence had not always gotten rid of them by manumission, and that some of the slaves in Virginia and the Carolinas were the descendants of ancestors who had come from Africa by way of New England, where they had been domiciled a generation or two in the homes of good old Puritan families.

My conviction is that if Mr. Morrill could have saved the Union without the abolition of slavery, he would have been quite unwilling to lead a propaganda for its extinction by forbible means. This is quite evident from the quotations which follow. In 1860 he offered a resolution declaring that "All accessions of foreign territory shall hereafter be made by treaty stipulations and that no treaty should be ratified until it has received the legislative assent of two-thirds of all the states of the Union, and that neither Congress nor any territorial legislature shall pass any law establishing or prohibiting slavery in any territory thus acquired, until it shall have sufficient population to entitle it to admission into the Union."

And again, when the Southern States began to secede and Civil War threatened the existence of the Union,

Mr. Morrill, in a speech delivered in the House, said:

"Let me appeal to all parties to try to live under that Union a little longer. Give us another span of seventy years and prolong the hopes of mankind in the possibility of man's power of self-government, ~~but~~ Do not let us break up the model which ~~portrays~~ patriots though with unequal steps, in contiguous as well as in far distant countries, have struggled and are struggling to mould institutions like those among which our own still lives, the leading example, but if our attempt to put off the evil ,day shall fail and this matchless form of free government shall be put to the extremest peril, it will rally all the vigor remaining in its constitution in behalf of self-preservation. It cannot abnegate its powers and it will not die willingly. The great heart of the nation will confront all dangers and survive, I trust, to cover

friends and foes with countless blessings."

These are not the words of a fanatical enthusiast, but the words of truth and of soberness. I think I may safely hazard the opinion that the views held by Mr. Morrill in 1860 were consonant with those expressed by his great leader in his speech at the Cooper Union, New York, February 27, 1860, upon the eve of his inauguration as President of the United States of America. Said he: "Wrong as we think slavery is, we can yet afford to let it alone where it is, because that much is due to the necessity arising from its actual presence in the nation, but can we, while our votes will prevent it, allow it to spread into the national territories and to overrun us here in these free states?"

And again in his letter to Horace Greeley, August

22, 1862, he says:

"I would save the Union; I would save it the shortest way under the Constitution. The sooner the national authority can be restored, the nearer the Union will be the Union as it was. If there be those who would not save the Union unless they could at the same time save slavery, I do not agree with them. If there be those who would not save the Union unless they could at the same time destroy slavery, I do not agree with them. My paramount object in the struggle is to save the Union and is not either to save or to destroy slavery. If I could save the Union without freeing any slaves, I would do it. If I could save it by freeing all the slaves, I would do it, and if I could save it by freeing some and leaving others alone, I would also do that.

What I do about slavery and the colored race I do because I believe it helps to save the Union, and what I forbear, I forbear because I do not believe it would help to save the Union. I shall do less whenever I shall believe what I am doing hurts the cause, and I shall do more whenever I shall believe doing more will help the cause. I shall try to correct errors when shown to be errors and I shall adopt new views so fast as they shall appear to be true views."

As might be expected from a man brought up as a Whig and permeated with the Whig doctrine of protection, the legislation known as the Morrill Tariff was framed upon the lines of protection to infant industries, but it was not intended to foster the growth of monopolies. It was essentially a measure to raise revenues and was never intended in any sense to be prohibitive. Trusts had not yet come into being.

Mr. Morrill would have recoiled from legislation the outcome of which would be to build up stupendous fortunes by crushing out legitimate competition at home. The largest amount of revenue could be raised by encouraging importations from abroad and not by fiscal legislation which should strangle the importation of foreign commodities. From this point of view he was eminently successful. The revenue accruing from import duties, added to the revenue raised by taxation and excise at home, supplied the nation with the means of meeting its obligations upon the gold interest-bearing bonds and for the ultimate extinction of these obligations at maturity.

At this distance of time, we can scarcely appreciate the terrible strain upon the resources of the nation, when the stoutest hearts began to quail in the presence of

the mighty issues before them, when the whole south was in arms and the patriotic thousands of the north left home and kindred to grapple with the foe and the bewildered government, with an empty treasury, knew not which way to turn. Who furnished the sinews of war which carried the nation triumphant through the struggle and restored the Union of the States? Three men of might and of light and leading came to the rescue. Salmon P. Chase, Secretary of the Treasury, framed the legislation authorizing the issue of bonds, Henry Clews and Jay Cooke of New York placed them upon the market in Wall Street, and Justin S. Morrill of Vermont supplied the revenue to meet the annual interest upon the bonds and liquidate them at maturity.

Immediately after entering Congress, Mr. Morrill made it manifest that while he did not intend to be an ob-

trusive member, he had no intention of becoming a lay figure-head. He supported and was mainly instrumental in pushing to a successful issue the first anti-polygamy measure directed against the practices of the Utah Mormons. In 1857 he introduced his first Land Grant College bill and advocated its claims by a powerful speech delivered in the House of Representatives. It passed both Houses of Congress by large majorities, but was vetoed by President Buchanan.

Great economic changes had meanwhile taken place resulting from the operation of natural causes, and through fiscal legislation at home and abroad. The establishment of free trade in Great Britain had opened the markets of that country to American agricultural products, stimulating to an unwonted degree production in America and correspondingly depressing agriculture in the British Isles. American wheat

and corn monopolized the supply of bread-stuffs to the British artisans, building up and controlling a market into which no other competitor could enter on equal terms. Concurrently therewith the protectionist policy adopted by the United States not only rendered this country independent of foreign supplies, but enabled her in the end to become, in many of the chief products of the mine and the forge and the loom, a formidable competitor for the chief part of the commerce of the world. Under these conditions, vaguely apprehended by the majority but apprehended with more or less clearness of vision by a few of the far-sighted statesmen of the country, the Morril Law of 1862 was passed by the Congress of the United States. There had arisen a demand for a system of education adapted to the needs of the time, which should go beyond the requirements of the classics, law,

medicine, divinity, and letters, an education which without proscribing or including classical or philosophical studies, should utilize for the public good the known and discoverable laws and processes of nature, for the increase of production and multiplication of the comforts and necessities of life. This demand the Morrill Law was intended to satisfy and upon this foundation more than fifty states colleges and universities are established. Mr. Morrill saw that in the rapid alienation of the public lands, through settlement and gratuitous allotment to railroad corporations, the public demain was being rapidly exhausted. He accordingly determined to dedicate a part of this rapidly diminshing area to the education of the American people along new lines and according to the necessities imposed by geographical and economic conditions peculiar to the Western hemisphere. He provided that

an allotment of public lands, 30,000 acres for each representative in Congress, to each of the States of the Union, including those then in rebellion, for the purpose of founding and endowing colleges and universities in which should be taught those branches of learning related to agriculture and the mechanic arts, without excluding the classics and including military science and tactics, in order to promote liberal and practical education among the industrial classes in the United States of America. This enactment, it will be observed, provided primarily for agricultural education and for mechanical training. To each of these an extension has been given beyond what was enticipated by Mr. Morrill in 1862. Experiment stations have been added and made integral parts of the Colleges of Agriculture, in order to promote discovery as well as to communicate scientific principles already known.

And on the side of mechanic arts, an extension going equally beyond the original anticipations of Mr. Morrill has found expression in schools of Mechanical and Electrical Engineering, Civil Engineering, Mining Engineering, and Sanitary Engineering. Indeed these several courses of engineering may be said to have come into existence within the last fifty years. Polytechnic schools there had been, but the limits of their work and the limits of their attainments were far short of those which exist at the present day. Around these Agricultural and Mechanical Colleges, by virtue of the latitude allowed in the organic act, colleges of science and classics grew up, many of them embracing within their curriculum almost the entire range of human knowledge as now realized. 1862, I venture to say, is the most memorable date in the history of education in America.

Not a few of these colleges and universities thus founded recognize and act upon the distinction of collegiate and university work, viz. That the function of the college is to teach and the function of the University to discover; that collegiate instruction consists mainly in communicating to students the contents of knowledge or discovery verified and accepted; that the function of the University, on the other hand, is to extend the boundaries of human knowledge, to proceed from the known to the unknown, using the former as the basis for the discovery of truth, and that while these two related functions often co-exist in the same institution, that there is a growing tendency to discriminate sharply between the one and the other. Colleges of law and of medicine and of pharmacy and dentistry and business have

have also been brought into existence in connection with land-grant colleges and universities, but are not regarded as integral parts of either collegiate or university organization, not developed in the course of organic growth of either college or university, but factitious and contingent annexes and accretions. It is further recognized that the special work of the University is to uplift and to establish and maintain a high standard of education in the Commonwealth, in which it may be established, on the assumption that inspiration must come from above and not from below.

For years after the establishment of these land-grant colleges and universities, the older institutions of the country, in the enjoyment of endowments which were then considered large, looked somewhat askance and with somewhat of contempt upon institutions organized ostensibly in the

the interests of the masses of the people. They ridiculed the idea of agriculture taught from books and engineers made in the class-room, but ere long when they discovered that chemistry and physics, botany and biology were taught by men of high professional ability who attracted a large number of students by virtue of the superior instruction given with the aid of laboratory equipments which made education effective, and that the knowledge of these subjects thus obtained far surpassed anything which they could communicate, they began to regard the advent of the stranger with rather more courtesy and consideration. Indeed they found that in science pure and applied, in all its relationsto industrial activity, they were far suppassed by the newcomers and that in order to maintain a parity with them it was necessary to provide something like equivalent facilities in these departments of instruction. A new inspiration was thus somewhat reluctantly

and somewhat unconsciously infused into the older institutions. They were roused from their lethargy and forced to acknowledge, in practice if not in theory, that a new leaven had been introduced into education in America. The scientific equipments of Harvard and Princeton, Yale and Columbia, would not be what they are today, had it not been for the impulse and the stimulus given by such institutions as Cornell University, and the Universities of Ohio, Michigan, Wisconsin, Minnesota, Illinois, and California.

The revenues accruing from the proceeds of the land-grant of 1862, though large, were largely multiplied by appropriations and benefactions made in the states in which the land-grant colleges and universities were established. The revenues of Cornell University today exceed the united income of half a dozen of the great universities

of the nation when land-grant colleges were established. Cornell and half a dozen or more of the land-grant universities mentioned above average more than $1,200,000. per annum, an income equal to that of the most advanced half dozen universities existing prior to 1862. Added to these vast and annually increasing incomes are the splendid buildings and still more splendid equipments which are rapidly placing the land-grant colleges of America well forward in leading education upon the western continent.

During his lifetime, Mr. Morrill saw an extension and a development of his idea far beyond anything that he had ever dreamed of. In 1890 a bill for additional endowment in a lump sum amounting to $25,000. annually for each land grant college and university established under the Act of 1862, was framed by him and having passed both houses of Congress, became a law.

I may here be permitted without egotism to interpolate that while the bill of 1890 was pending, I had the honor to be invited to address the committee of the Senate of which Mr. Morrill was Chairman, upon its expediency and its necessity. After I had ended, Mr. Morrill asked me to commit what I had said to writing and hand it to him. I had the satisfaction to hear from him afterward that my argument commended itself to the committee and was not without effect in determining the result.

A still further enlargement of this munificence found expression in the measure known as the Nelson Bill, carrying an additional appropriation of $25,000. which passed both houses of Congress and received the signature of the President in 1907. Following upon the same lines, the Hatch Act for the creation and endowment of Experiment Stations, be-

came a law in 1887 and this was still further augmented by the passage of a supplementary and equivalent measure in 1906, known as the Adams Bill. The annual income of these colleges and universities, with the experiment stations attached, amounts annually to twenty-five or thirty millions of dollars, while their buildings, grounds and equipments fall not far short of one hundred million.

What a stupendous work to be accomplished through the far-sighted patriotism and the indefatigable activity of one man! Allies and coadjutors he had, no doubt, but he alone was the moving spirit which animated the whole. Thomas Jefferson founded and partially endowed the University of Virginia, sketching in bold outlines its organization and the work to be accomplished by it, drawing the plans for the buildings and superintending their erection, and upon this

work he prided himself more than upon his administration during eight years of the executive duties of the general Government. He has left his impress, through this great University, indelibly upon education in the south. John D. Rockefeller has endowed by his munificence the University of Chicago and placed it upon an equality with the foremost institutions of the land, but far surpassing the ideals of Jefferson or of Rockefeller, Mr. Morrill is the virtual founder of more than fifty colleges and universities in America, each of which may be said to owe its existence almost exclusively to the fertile mind and energetic brain and stout heart of this greatest of all pioneers of education.

I have thus briefly sketched his character and his work, a man of incorruptible integrity, singleness of purpose, steadiness of vision, largeness of conception, sprung himself from the ranks and with an intelligent intuition of what

America required and of what America could do. He placed himself boldly in the front and clearing all entanglements out of the way and surmounting every obstacle, has raised for himself a monument more enduring than brass and loftier than the regal structure of the pyramids. Modest in his demeanor, though massive in his grandeur, he stands among all the conspicuous benefactor of his race. George Washington emancipated his country from the thralldom of foreign dominion. Justin S. Morrill has accomplished a mightier work, in emancipating his countrymen from the thrall/dom of ignorance and social servitude.

All land grant colleges and universities of America owe their existence to him. Their grounds and buildings and material equipments, their organization, their faculties and their thousands of students, male and female, all owe their material and corporate existence to him. Other men

have builded under the leadership of Justin S. Morrill, but Justin S. Morrill is the master builder of them all. This is the man and this is the splendid character whom I bring before you today and to whom your reverence and our reverence, your devition and our devotion, your homage and our homage are due.

Empires and republics may rise and fall; populous cities may become desolate, fertile plains barren and waste places blossom as the rose, governments may change, rivers alter their courses and the land-marks of ages disappear, but Justin S. Morrill, statesman, philanthropist and benefactor of his race, will live in the memory of mankind and in the empire of education and culture which he has founded, clarum et venerabile nomen, with ever increasing lustre as centuries and milleniums roll on. This is the inspiration from the life and the public service of a great man which I bring to you for your emulation today.

Lectures On Metaphysics.

Lecture I.

Philosophy — Its Absolute Utility.

By Subjective.

1st The utility of a branch of knowledge of how many kinds? Define Absolute and Relative Utility?

2nd How many kinds of Absolute Utilities?

3rd Is man an end unto himself?

4th What is the difference between knowledge and intellectual cultivation?

5th What is the end of practical knowledge?

6th " " " " " Speculative " ?

7th Why is philosophy best entitled to the appellation Useful?

8th Should the intellectual instructor seek to influence the will of his pupils?

9th What is the place of the passions in education?

Lecture II

Philosophy — Its Absolute Utility.

By Objective.

1st What is the criterion of the utility of a study?

2nd Define General and Particular utility.

3rd What is the Absolute utility of philosophy?

4th What is the Objective utility of philosophy?

5th What is the relation of Psychology to Theology?

6th What is the notion of a God?

7th Is intelligence first in the order of Existence?

Is the Universe governed by moral law?

8th Show how a consciousness of freedom, and of a law of duty, are the conditions of Theology.

9th What is the issue of Psychological Materialism?

10th In what does the moral agency of man consist?

11th What are the two-fold evils of Exclusive physical Study?

Lecture III

The Nature and Comprehension of Philosophy

1st What is Philosophy?
2nd What is meant by the name – Philosophy?
3rd " " " " " " thing – its definitions?
4th What is Philosophical Knowledge?
5th " " Empirical " ?
6th What does philosophy imply?
7th Towards what does Philosophy necessarily tend?
8th Explain how mans knowledge is relative.
9th What is the primary problem of philosophy?
10th What is the study of mind, and what are the branches of this study?

Lecture IV

The causes of Philosophy.

1st Where are the causes of philosophy to be found?
2nd Explain the principle of cause and Effect, of the love of unity?
3rd Is the love of unity a guiding principle in philosophy?
4th " " " " " " source of error?
5th What is the auxiliary cause of philosophy?
6th Show how the principle of wonder affords an explanation of the order in which objects were studied?

Lecture V

The dispositions with which Philosophy ought to be studied.

1st What is the first condition of the study of Philosophy?
2nd Give his comparison of consciousness and the Bible.
3rd Show how man is a social animal.
4th Show how skeptical influence can be drawn from the influence of custom?
5th What is the relation of the individual to social ends?
6th Do philosophers maximum in making doubt the first step to philosophy?
7th What is the actual practical condition of philosophy. What is Sloth? What is Pride?

Lecture VI

The Method of Philosophy.

1st Is method a progress towards an end?
2nd What is the one possible method of philosophy?
3rd What is Analysis?
4th " " Synthesis?
5th Do analysis and synthesis constitute a single method?
6th What is Induction?
7th Who were the Sophists?
8th To what did Plato & Aristotle direct their observation?
9th What is said of the philosophy of Bacon & Descartes?

Lecture VII.

The Divisions of Philosophy.

1st Is a division of Philosophy expedient?
2nd What is the most ancient division of Philosophy?
3rd What is meant by the term Active?
4th Give the history of the distinctions of Theoretical & Practical Philosophy
5th Why is the division of Philosophy into Theoretical & Practical unsound?
6th How are the terms Art & Science applied?
7th Why are Ethics, Politics, etc, designated Sciences; Logic, Rhetoric, etc, Arts?
8th What is the distribution of the Philosophical Sciences?
9th What are the three grand questions of Philosophy?
10th What is the Phenomenology of Mind? The Nomenology of Mind?
11th What is said of the Nomology of the cognitive faculties?
12th What is said of Logic?
13th 2. " " " " the Nomology of the feelings?
14th 3. " " " " " " " Conative Powers?
15th What does mind or consciousness afford?

Lecture VIII

Psychology. Its Definition. Application of Terms.

1st Give the definition of Psychology.

2nd What is meant by the term Psychology? How is its use vindicated?

3rd What do the terms Spirit and Soul mean? Are their corresponding terms in other languages?

4th By whom was the appellative Psychology first employed?

5th How are the correlative terms Phaenomenon and Subject best illustrated?

6th Are philosophers harmonious regarding the relativity of human knowledge?

7th Is all relative existence comprised in what is relative to us? What are the two branches of this principle?

8th Are the properties of existence known in their native purity? How is this illustrated by an act of perception?

9th In what sense is human knowledge relative?

10th What does the term Subject denote? How is the word Substance employed?

11th What is a Mode? What is meant by the word Modification? by the word State?

12th Qualities are of how many kinds? Define each.

13th What is the meaning of the term Attribute?

14th " " " " " " " Property?

15th " " " " " " " Accident?

16th " " " " " " " Phaenomenon?

Lecture IX.

Explication of Terms — Relativity of Human Knowledge.

1st In relation to what three errors have philosophers fallen regarding Substance?

2nd Give the derivation and meaning of the word Mind. How can Mind be defined?

3rd Give the definition of the term Conscious Subject.

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4th How is the use of the term Subject vindicated?
5th What is the origin and meaning of the terms Subjective & Objective
6th What errors arise from want of the terms Subjective & Objective?
7th What is the relation of the Self or Ego to the bodily organs, and Thought?

Lecture X
Application of Terms.

1st What is an Hypothesis?
2nd What are the two conditions of a legitimate hypothesis?
3rd How can the evidence of an hypothesis be known?
4th How are the terms Theory & Practice properly used?
5th How are the terms Theoretical & Practical Philosophy used?
6th Give the meaning of the term Power. Give Reid's criticism of Locke.
7th What is meant by an active, what by a passive power?
8 What is the meaning of the word Faculty, of the word Capacity, of the words Disposition & Habit?
9th Give the definitions of the terms Act, Operation, Energy.
10th What is meant by actual, what by potential existence?

Lecture XI
Outline of Distribution of Mental Phaenomena:
Consciousness-Its Special Conditions.

1st How are the mental phaenomena distributed?
2nd What is the one essential element of the mental phaenomena?
3rd What are the three grand classes of mental phaenomena?
4th Give their nomenclature.
5th By whom was this three-fold distribution first made?
6th How is the objection to the classification obviated?
7th What is the order of the mental phaenomena?
8th What should be the first object of consideration?
9th Can Consciousness be defined?
10th Does Consciousness admit of philosophical analysis?

11th What kind of act is the word Consciousness employed to denote, and what does it involve?

12th Do Consciousness and Knowledge involve each other?

13th What is the nature of scientific analysis? Illustrate it by a geometrical example. By the distinction of Consciousness and Knowledge.

14th By whom was the term Consciousness first used in its present psychological meaning?

15th Was there a term for Consciousness in Greek before the decline of philosophy?

16th Did certain of the Aristoteleans attribute the recognition of sense and feeling to a special faculty?

17th Give the most general Characteristic of consciousness. Give the special conditions of Consciousness which are generally admitted.

1st Does Consciousness imply an actual Knowledge? 2nd Does it imply an immediate knowledge? 3rd Does it imply Contrast and discrimination of an object from an other? Is this discrimination of various kinds and degrees?

4th Does it imply Judgement? Does it imply Memory?

Lecture XII.

Consciousness — Its Special Conditions: Relation to Cognitive Faculties in General.

1st Give the special conditions of Consciousness not generally admitted.

2nd 1. Is our Consciousness coextensive with our Knowledge?

3rd Give the doctrine of Reid and Stewart in regard to Consciousness.

4th Is Consciousness a special faculty, according to Reid & Stewart?

5th Is there Consciousness of a cognitive act, distinct from a Consciousness of its object?

6th Show this in detail with respect to the different Cognitive faculties. 1st Imagination. 2nd Memory.

7th Is Memory an immediate Knowledge of the past?

8th What are the conditions of immediate knowledge?
9th How are these conditions applied to the knowledge we have in memory?

Lecture XIII.

Consciousness — Its Special Conditions: Relation to Cognition. Identities in General.

1st What is the principal merit accorded to Reid as a philosopher?
2nd What was the doctrine held by modern philosophers before Reid?
3rd Does Reid exempt the object of perception from the sphere of consciousness?
4th That in this Reid is wrong is shown in how many ways?
5th Show how Reid's doctrine involves a general absurdity. Show also how it destroys the distinction of consciousness itself.
6th Do Reid and Stewart maintain that Attention & Reflection are acts not subordinate to, or contained in, consciousness.
7th Is Attention a faculty different from consciousness?
8th Quote Reid in reference to this question.
9th What is Attention?
10th Can we attend to more than a single object at once?
11th Quote Stewart in reference to this question.
12th How is Stewart's doctrine criticised? Give his first illustration from the phenomena of sound.
13th Show how it is impossible on Stewart's doctrine to understand how we can perceive the relation of different sounds.
14th Give his second illustration from the phenomena of vision.

Lecture XIV.

Consciousness — Attention in General.

1st Is Attention possible without an act of free will?
2nd Attention is of how many kinds or degrees?
3rd What is the nature & importance of Attention?
4th Can we attend to more than a single object at once?
5th Show the value of attention considered in its highest degree as an act of will.

Lecture XV

Consciousness—Its Evidence and Authority.

1st What is the source of Philosophy?

2nd Show how the possibility of Philosophy implies the veracity of consciousness.

3rd Is consciousness naturally clear and unerring?

4th What is the cause of variation in philosophy.

5th Are we bound to inquire whether there be any rules by which in employing the testimony of consciousness, we must be governed?

6th What are the three grand laws under which consciousness can be legitimately applied to the consideration of known phaenomena?

7th What is a fact of consciousness?

8th The facts of consciousness are to be considered in how many points of view?

9th Show how far doubt is possible in regard to a fact of consciousness. Illustrate this by an act of Perception, by an act of Memory. Show how Stewart confounds these two degrees of evidence. Give the criticism of Stewarts view.

10th Give the result of the Law of Parcimony.

11th What is the second Law? What is the third? Illustrate these in conjunction.

12th Show how Scepticism arises out of partial dogmatic systems.

13 Must the absolute & universal veracity of consciousness be maintained?

Lecture XVI.

Consciousness—Violations of its Authority.

1st What is the first & genuine principle of Philosophy?

2nd How are the violations of authority consciousness illustrated.

3rd What is meant by the phrase—The Duality of consciousness.

4th Is the fact of the testimony of consciousness in perception allowed by those who deny its truth?

5th Give the quotations from Berkeley & from Hume

6th Are the Ego & non-Ego given by consciousness in equal counterpoise and independence?

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7th How many different philosophical systems originate in this fact.
8th What is the grand division of philosophers?
9th What are the former called?
10 How are the latter subdivided?
11 Into what are the Realists divided?
12 To what class do the majority of modern philosophers belong, and how are they subdivided?
13th How are the Nomists subdivided?
14th What are the hypotheses proposed in regard to the mode of intercourse between mind and Body?
15th I What is the hypothesis of Occasional Causes?
16th II " " " " " Pre-established Harmony?
17th III " " " " " the Plastic Medium?
18th IV " " " " " Physical Influence?

Lecture XVII

Consciousness, - General Phaenomena, - Are we Always Consciously Active?

1st What is meant by the Activity and Passivity of Mind?
2nd Are Activity & Passivity always conjoined in the manifestations of mind?
3rd Are we ever directly conscious of passivity?
4th Are we always consciously active?
5th Give what Kant has to say upon this subject.
6th What is the characteristic of somnambulism?
7th Is dreaming possible without memory?
8th How had the Author established by experience that the mind remains conscious during sleep.
9th Give the personal experience of Jouffroy.
10th Give the general conclusions.
11th How is Jouffroy's theory corroborated by the case of the post-man of Halle? Give the case of Operinus.

Lecture XVIII

Consciousness, - General Phaenomena, - Is the mind ever Unconsciously Modified?

1st What are the three degrees of Mental latency?
2nd Give the first? Give the second and show how this is illustrated by cases of fever.
3rd Give the case of the Countess de Laval.
4th " " " given by Coleridge
5th What general fact do these cases establish

6th Give the third degree of latency.

7th How is this to be considered?

8th What does the Author maintain?

9th What two objections to this doctrine?

10th Show how the first objection can be obviated.

11th What is the second objection?

12th Show how this objection is obviated by the special evidence adduced

~~1st External Perception. 2 Sense of Hearing.~~

1 Give the ~~first~~ examples from External perception

1 Sense of sight. 2 Sense of Hearing.

13th II Show how this objection is further obviated by a consideration of that mental process each Association of Ideas —

14th Give Stewart's explanation of the phaenomenon of Association.

15th What are the difficulties of Stewart's doctrine

16th III Show how our Acquired Dexterities & Habits are explained by the theory the Author advances

17th Explain the three theories which have been advanced.

Lecture XIX.

Consciousness — General Phaenomena. — Difficulties And Facilities of Psychological Study.

1st Is the fact of the existence of latent agencies in our faculty a presumption that they exert an influence in all?

2nd Are the laws of Association sometimes apparently violated?

3rd How is this anomaly solved?

4th Does this same principle explain the operations of our Acquired Dexterities and Habits?

5th What are the three theories advanced to explain the operations of our Acquired Dexterities & Habits?

6th Explain the first — the mechanical theory —

7th " " second — " theory of Consciousness without memory.

8th Show how the third theory ~~is~~ the theory of latency, explains the phaenomena in accordance with analogy.

9th What are the three principle facts to be noticed in connection with the general phaenomena of Consciousness?

10th I. What are the difficulties in psychological observation

I. Show how the conscious mind is at once the observing subject and the object observed.

II. Show how the Study of Mind is made difficult from the want of Mutual Cooperation.

III Can any part of Consciousness be accepted at second

IV Can the phaenomena of consciousness be studied only through Memory?

V Are the phaenomena of Consciousness presented only in succession?

VI Do they naturally blend with each other?

11th II. What are the facilities of philosophical study?

Lecture XX

Distribution of the Special Cognitive Faculties.

1st What are the three great classes of mental phaenomena?

2nd What is the first class?

3rd What is meant by the term Mental powers?

4th How are Faculty and Capacity distinguished?

5th What is the true place and importance of Philosophical System?

6th What is the opinion generally prevalent regarding mental powers?

7th What is Psychological Division?

8th What are the Special faculties of the knowledge evolved out of Consciousness?

9th What is the first? How is it subdivided?

10th " " " second

11th " " " third " " " " " "

12th " " " fourth

13th " " " fifth.

14th What is included under this faculty?

15th What is the sixth?

16th Is the term Faculty properly applicable to Reason or Common Sense?

12)

Lecture XXI

The Presentative Faculty.

1st Are the phaenomena of mind presented in composition

2nd What are the three rules of psychological analysis

3rd Have these been observed by psychologists

4th How are the Special Faculties of Knowledge evolved from Consciousness?

I. What is the Acquisitive Faculty?

II. " " " Conservative "

III. " " " Reproductive "

5th What is meant by knowledge a priori & a posteriori?

6th How is the relation of our knowledge to experience best explained?

7th What are the two grand hypotheses of Mediate Perception

Lecture XXII

The Presentative Faculty.

1st Is the doctrine of perception a cardinal point in Philosophy? What is its place in the philosophy of Reid?

2nd Give Reid's criticism of Arnauld's opinion.

Lecture XXIII

The Presentative Faculty.

1st Are Philosophers at variance on this point, viz., Whether the thinking subject is competent to an intuitive knowledge of aught but the modifications of the mental self

2nd What are the different conditions involved in Intuitive and in Representative Cognition?

3rd In the first place considered as acts what are the different conditions involved in the two kinds of knowledge

4th In the second place in ~~reference~~ relation to their objects what are the different conditions involved?

5th In the fourth place in relation to their sphere, what are the different conditions involved?

6th In the fifth place in reference to their perfection What are the different conditions involved?

7th Is this distinction taken by the schoolmen?

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Lecture XXIV.

The Presentative Faculty.

1st How is Perception Proper distinguished from Sensation Proper?
2nd How was the term of Perception used previously to Reid?
3rd Give Reid's account of Perception.
4th " " " " Sensation
5th What is the nature of the phaenomena of Perception & Sensation
6th What does the content of Perception & Sensation manifest?
7th Should Perception Proper and Sensation Proper be precisely distinguished?
8th What is the grand law by which the phaenomena of Knowledge and Feeling—Perception & Sensation are governed in their reciprocal relation.
9th How is this illustrated: 1. From a comparison of the several senses.
10th 2. From the several impressions of the same sense.
11th Is the distinction of Perception from Sensation of importance only in the doctrine of Intuitive Perception?
12th What are the Primary & Secondary Qualities of matter?
13th Does the list of primary qualities given by Locke and that of Reid coincide
14. The Primary Qualities can be reduced to how many?
15. What is the difficulty that this reduction involves?
16. How is it solved?
17. What is the general result?

Lecture XXV.

The Presentative Faculty.

1st Reasons for rejecting the testamony of consciousness in perception. Give the first ground of rejection and show how it is refuted.
2nd Give the second ground of rejection

3rd Show how this principle has influenced the whole history of philosophy.

4th Give the third ground of rejection.

5. Can the possibility of any immediate perception of external objects be rendered intelligible?

5th Is there any ground to suppose that the mind is situated solely in the brain?

7th Do we materialize mind in attributing to it the relations of matter?

8. What is the sum of our knowledge of the connection of mind and body?

9. What is meant by perceiving the material reality?

10. What is the total and real object of Perception?

11. What is meant by the external object perceived?

12. What is the fourth ground of rejection?

13. " " " fifth " " "

14. Are these grounds true & all competent?

Lecture XXVI.

The Presentative Faculty.

1st What are the conditions of a legitimate hypothesis?

2nd Do we first obtain a knowledge of the Whole or of the parts, of the object in Perception?

3rd What is Dr Stewarts doctrine?

4th What is the Author's doctrine?

Lecture XXVII.

The Presentative Faculty.

1st What two problems arise under the sense of Touch?

2nd 1. May all the Senses be analyzed into Touch?

3rd In What sense is the affirmative correct?

4th What is the proper object of Perception?

5th 2. Does Touch comprehend a plurality of senses?

6th Which side of this question is maintained?

7th Where is the sphere & organic seat of the Special sense of Touch?

8th Does the proper organ of Touch require as a condition of its exercise, the movement of the voluntary muscles?

9th What are the two counter questions regarding the Sphere of Sight?

10th 1. Does Vision afford us a primary knowledge of extension? or do we not owe this exclusively to Touch?

11th What is the proper object of Sight?

12th Who was the first philosopher to deny that extension is an object of Sight?

13th Is the perception of extension necessarily given in the perception of colors?

Lecture XX VIII.
The Presentative Faculty.

1st Can extension be represented to the mind except as colored?

2nd How are sensible objects represented in Imagination?

3rd What is the cause preeminently competent to the perception of extension?

4th Can Space or extension be represented in Imagination without shape? can it be represented without color?

5th 2. Does Touch afford us an original knowledge of extension, or do we owe this exclusively to Sight?

6th Which side of this question is maintained by Platner? Give what he says upon the subject.

7th What phaenomena favor Platner's doctrine?

8th Show how it is supported also by Chalmers's case of conching.

9th How do we obtain our knowledge of Visual Distance

10th What was the belief in regard to Visual Distance before the time of Berkeley?

11th On what do the circumstances which assist in forming our judgment respecting visual distance depend?

Lecture XXIX.

The Presentative Faculty.

1st In all the cases is the extended object in contact with the organ?

2nd What is the common doctrine of philosophers regarding the organic impression

3rd In what aspect is this doctrine inaccurate?

4th What is the relation of Sensation Proper to Perception Proper?

5th What is the faculty of Self-Consciousness?

6th Are philosophers less divided in their opinions regarding Self-Consciousness than in regard to Perception?

7th How is Self-consciousness contrasted with Perception? What are their fundamental forms?

8th What is meant by the form of a faculty.

9th Is space be a necessary form of thought is the mind itself extended?

10th What is the sphere of Self-consciousness?

11th What is the schema of Critical Analysis?

12th Is all necessity to us subjective?

13th Who was the first to announce necessity as a criterion of truth native to the mind?

14th Who was the first to fully apply this criterion?

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The differences between the Celtic and Teutonic races are very pronounced. The characteristics of Celt and Teuton as given by Caesar and Tacitus are as true today as they were 2000 years ago. The characteristics of the former we are thus described. "Quickness of apprehension" "great promptitude in action", "marvellous impressibility" "eager craving after knowledge"; fickleness, inconstancy, quarrelsomeness, treachery, easily disheartened by failure, ready to waste their strength on petty factions and private feuds, incapable of sustained effort.

The Teutons are in respect the opposite of these. Slower of apprehension they retain with more tenacity. What the Celt acquires by a sort of intuition the Teuton gets by more severe mental effort. He acts rather from a sense of duty, and calculation of advantage than from impulse. Less impressionable, but when fully roused to action he pursues his object with unflinching obstinacy. Less impulsive he is more constant in action, more tenacious of purpose, slow to quarrel, but when once fully committed to antagonism equally slow to lay his quarrel aside.

The Celt once overspread Germany, Gaul, Britain, Spain, Ireland. Now he has no national existence in any of these although he forms in large percentage the substratum of the populations of all of them.

The qualities of the Teuton fit him for developing and conserving the principles of free government, Parliamentary institutions elaborated by Englishmen. Free government has been successful to a high degree only among Englishmen and those

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descendants, partially successful only where a large Teutonic element prevails.

The Celt is impressed through the eye and the ear, the Teuton through his reasoning powers to which the eye and the ear are subsidiary. The Celt is content to know that a thing is the Teuton only when he knows why it is. The one rests upon Authority, the other repudiates authority unless justified by principle.

The dream of the philanthropist and the hope of the Christian has not yet been fully realized. The reign of universal peace is not yet with us, but the distant sound of heralds announcing her approach is heard and the foregleams of the coming dawn are seen in the skies.

The prophecies of the Old Testament foretold a time when universal peace should prevail. Isaiah and David looked forward with rapture to her coming, and the coming Messiah, hundreds of years before His advent, was styled the Prince of Peace.

As the world had been undergoing a preparatory education for the advent, so since the advent, mankind has been undergoing an education to fit them for the full realization of the blessings of that blessed time when "swords shall be beaten into plowshares and spears into pruning hooks, and the nations learn war no more." Through the nineteen centuries which have passed since the fullness of time presaged a happier era, mankind has been struggling through a long reign of violence, rapacity and blood-shed, to reach the beginning of a reign of gentleness, of justice and of humanity. Among the civilized nations a diplomacy, enlightened and considerate and rational, has displaced craft and duplicity and falsehood. A spirit of justice and humanity has begun to pervade international councils and

> "That they should take who have the power,
> "And they should keep who can,"

is no longer the inspiration of the ambassador or the envoy accredited to a foreign court and presenting his credentials, with the desire and the intention of overreaching the nation to whom he presents them.

In civilized nations, private quarrels are no longer avenged by private encounter. Tribal disputes no longer lead to extermination and among the English-speaking

race the duel is relegated to the reign of barbarism. Controversies between the states of the American Union are decided by the Supreme Court of the United States, the most ~~exalted~~ august and most important national tribunal in Christendom, and all controversies between the federated states of the German Empire will undoubtedly be settled by the courts of the Empire. The day is past when Bavaria and Saxony will appeal to the arbitrament of the sword. The carnage of Tours, the slaughter of ~~Chillon~~ Chalons, the horrors of the Thirty Years' War, the millions sacrificed to the insensate lust for power during the Napoleonic ascendancy, and the terrible ordeal of the American Civil War, which brought ruin and desolation and death to thousands, "Rachel weeping for her children and refusing to be comforted, because they were not", can never be repeated. All the controversies which led to the great wars of the last half century could have been settled peaceably by arbitration. The American Civil War, the Austro-Prussian, the Franco-Prussian, the Russo-Turkish, the Boer War, and the Spanish-American War, could all have been settled by arbitration or by reference to such a tribunal as the Hague.

There are now no outstanding differences likely to lead to serious controversy between the United States and Great Britain and France, or between any two of them. It is therefore peculiarly fitting that the President of the United States, representing the peace-loving sentiment of 160,000,000 English-speaking people, take the initiative ~~in~~ in binding three of the great exponents of modern civilization in a pact of amity and good will., a pact which would refer all international differences that might or could arise between them to a tribunal established upon principles of equity. The arbitration treaties already negotiated and only waiting the sanction of the United

States, Senate to become part and parcel of international law will accomplish this end. If ratified, only a short time will elapse until Germany and Russia and Japan will follow. What a noble example and what a stupendous achievement!

Every consideration of humanity and religion and civic righteousness and economy and industry and commerce appeal to the Senate of the United States to set its seal upon what would be the greatest achievement of civilization since the world began. Our pension list will ere long be materially reduced, if not extinguished. An army, only large enough to suffice for police duty and a navy adequate to police the seas and protect commerce from piracy would save hundreds of millions annually to the national exchequer. The millions thus saved would reduce taxation, build roads, promote education and leave millions upon millions still for public parks, museums, laboratories for research, libraries for the diffusion and promotion of knowledge, hospitals for the sick, reformatories to reclaim youth from vice, moral and civic propaganda for the purification of morals and of society, and all the beneficent organizations and movements set in being for the uplift of mankind. Just think of what could be accomplished by the six or seven hundreds of millions annually saved to America, to France and to the British Empire. Germany and France and Russia and Austria and Italy maintain armies in the aggregate amounting to millions, trained in the highest degree and armed with the most destructive weapons which modern invention can devise, ready at the command of their sovereigns to devastate and to plunder and to kill upon the battle field innocent victims who have no material interest in the quarrels of their superiors. Treasure, instead of being squandered, would be saved for the development of pacific industry; able-bodied men, now engaged in preparation for mutual destruction, would be restored to the avocations of peaceful industry, multiply-

ing the productions of the field, the forge and the loom and cheapening the necessities of life. All honor to Carnegie and Taft, Bryce and Knox and Sir Edward Clark and Jusserand and D'Estournelles de Constant and their devoted colleagues who have made possible a consummation so devoutly to be wished. "Blessed are the peacemakers, for they shall be called the children of God."

We do not know what the music of the spheres may be, but the conviction begins to dawn upon me that it may be the symbol and the earnest of that universal peace which ~~will~~ shall certainly some day reign throughout the earth and throughout the illimitable universe of God. It may be the far-off echo of the paean of glory which filled the universe, "when the morning stars a~~s~~ng together and all the sons of God shouted for joy", and of the nobler song sung by the angels when a new creation, nobler and mightier than the first, found expression in the grandest chorus ever written, ever sung: "Glory to God in the highest and on earth peace, good will toward men."

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Addrss at Bowling Green?

In 1862 the Congress of the United States passed an Act donating to each State 30,000 acres of the public lands for each representative in the Federal Legislature in order to found and endow Colleges for instruction in those branches of learning related to Agriculture and the Mechanic Arts. Classical and other scientific studies might also be included and instruction in Military tactics was made obligatory. Under this allotment Kentucky received 330,000 acres, a munificent endowment which if properly managed would when the lands were sold and the proceeds invested have yielded an income adequate to the maintenance of such an institution as was then contemplated. The Legislature of Kentucky accepted the donation but does not seem to have been able to grasp the significance of the trust. Instead of placing the College upon an independent basis it attached it to a denominational institution situated in Lexington and known as the Kentucky University. The conditions of this alliance required that the Kentucky University should make the Agricultural and Mechanical College one of the coordinate Colleges of the Kentucky University, should within a year provide a farm for experimental Agriculture in consideration whereof and for the purpose of defraying the expenses of instruction and administration the State agreed to pay annually to the Kentucky University the interest on the invested proceeds accruing from the sale of the lands. The further condition was added that if at any time the State should see proper to dissolve this relation for any cause satisfactory to the State Authorities it might so do. The Commissioners of the sinking fund were directed by the Legislature of 1865 to sell the land and invest the proceeds of the sale. The land-scrip was placed in the hands of M. C. Johnson who without exercising much discretion placed the scrip upon the market and sold it for fifty cents per acre. The sale yielded $165,000 which was invested in Kentucky 6 % bonds.

If the donation of land to Kentucky had been managed as economically as some other States managed theirs, the State would have realized at least one million for the purpose of founding and endowing its College under the act. But the magnificent grant was virtually sacrificed through carelessness or incompetency.

The College was opened in 1866 as one of the Colleges of Kentucky University and continued in this relation till 1878 when the Legislature of that year appointed a committee to investigate and report to the General Assembly upon the expediency of continuing longer the connection which had been established in 1865. The committee after an exhaustive examination reported unanimously in favor of dissolving the connection. It further recommended that the College should be reestablished and placed on an independent basis, that opportunity should be given to any town which desired to bid for its location, that it should be made more comprehensive in its scope and purpose, and that the income from the invested funds accruing from the sale of the land-scrip should be applied for its benefit. It was further recommended that it should be entirely undenominational and should be managed and controlled by a Board of Trustees appointed by the Governor. The report of the committee was adopted and in June 1878 the connection of the Agricultural and Mechanical College of Kentucky with the Kentucky University ceased. There were but two competitors for the location, Bowling Green and Lexington. The former offered $30,000 and a connection with Ogden College, the latter $50,000 and the City Park as a site containing 52 acres and situated within the city limits. The latter offer was accepted and the College remained at Lexington. Upon careful consideration it was found that the income from the Congressional scrip fund was altogether insufficient for the maintenance of such an institution as the Commonwealth required, and the Legislature of 1880, in reestablishing the College and

determining its location, passed an act appropriating to it annually the proceeds of half a cent upon each hundred dollars of taxable property. A charter conferring ample powers was passed making provision for internal expansion such as the resources of the College and the necessities of the public might from time to time justify. Accordingly in 1880 the College thus reestablished and reorganized opened its doors for the reception of students.

Courses of study were arranged in Agriculture, Science, Classics, and Normal School training. A faculty consisting of seven professors and two assistants was provided. The money given by Fayette County and the City of Lexington was applied to the erection of buildings and in 1882 the College entered upon possession of its new quarters. Opposition however had meanwhile developed. The denominational Colleges made common cause against the half cent tax levied annually, alleging that by virtue of the State aid thus given the State College would be enabled to offer to the public greater advantages in education and at cheaper rates than could be presented by the denominational Colleges of the Commonwealth. An earnest appeal was made to the Legislature to repeal the tax as "Unwise, unjust, excessive, oppressive". No contest within my recollection has been fought before the Legislature with more pertinacity and bitterness. But after the lapse of three months the motion to repeal was defeated and the State College relieved of immediate apprehension addressed itself successfully to its proper work.

I have dwelt at some length upon the early history of the College because its origin and the difficulties which it had to encounter in its early history are by the majority of persons imperfectly known.

Passing over much that might be said I will now state what advantages the College has to offer to the public. The Courses of study comprise the following, each extending over four years and leading to a degree:

Agriculture, Mechanical Enginering, Civil Engineering, three Scientific Courses, viz: Mathematical, Biological, and Chemical; Classical, and Pedagogy. An Academy prepares students for the Freshman Class. Three minor courses of study to prepare teachers for the different grades of certificates required by law are provided.

The Departments of study which make up the Courses presented above are Mathematics pure and applied, Physics, Zoology, Botany, Chemistry, Geology, Mineralogy, Biology, Anatomy, Physiology, Drawing free-hand and Mechanical, Agriculture, Horticulture, Entomology, English, Latin, Greek, French, German, Spanish, Italian, Mental and Moral Philosophy, Logic, Normal School work, History, Political Economy, and Military Science. These are for the most part taught by Professors whose time is devoted exclusively each to his own specialty. As a consequence our corps of Professors with their assistants is large— no less than twenty eight in number. The material appliances which make instruction effective are ample. Our museums and laboratories are well equipped for illustration and for experimental work. Botany, Biology, Geology, Entomology, and Anatomy and Physiology are all taught in the laboratory and with the microscope. These require large space both for class room instruction, for lectures, and for practical work. The Physical and Engineering laboratories are large and well equipped, the machinery in the latter costing not less than $35,000 Within the last ten years two large buildings have been erected for experimental analysis in connection with Agriculture and for Mechanical and Civil Engineering. We have now under contract another building 95 feet square and three stories high into which will be transferred, when completed, four of the Departments of natural Science. Including the experimental farm the aggregate value of grounds

buildings, apparatus, museums, and laboratories is about $500,000. All this has been gathered together and created within the last seventeen years. During the first part of this period the College had a fierce struggle for existence. But its assailants have dropped off one by one. They have discovered that there is no necessary rivalry between them and the State College. It addresses itself as will be seen to lines of work which the denominational colleges have neither the means nor the inclination to attempt. But while its education is in the mean is on the lines laid down in the Act of Congress of July 1862 it does not confine itself exclusively to the technical and the practical. These are its ultimate aim but it endeavors to reach this ultimate end by making the liberal the basis of the practical, in its Course of instruction and training. It aims as far as possible to develop and perfect the mind as an instrument of thought, as a condition and an indispensable condition for skilful and technical dexterity. It aims to educate and coordinate the mind the eye and the hand, to make the mind the custodian and interpreter of the secrets of nature, leaving to the eye and the hand to apply these through mechanical adaptation to the necessities of human life. The liberal education given is provided in order that man may be better able to understand and conquer and apply to his own advantage the forces of nature when he knows something of the wonderful powers of his own mind, whence he came and whither he goes, his origin and his destiny. Accordingly means have been provided for cultivating and enlarging his mental powers, through the study of language, the best models of literature, the great thoughts of illustrious men in all ages, the analysis of the mental powers, the moral and aesthetic faculties of the human soul, the law of right and the law of duty. In this course of instruction it is not forgotten that man is a citizen, and that any course of education would be defective

which fails to prepare him for the duties of citizenship. He must be made acquainted with the principles of the Government under which he lives, its history, its relation to other nations, the reciprocal rights and duties of citizens and of peoples.
No College bred man nowadays can afford to be ignorant of the laws of trade, the laws of supply and demand, the principles of finance, the laws governing the uses of land and of money, the relations of capital and labor, No College bred man can afford to be ignorant of the history of his own people, the race of which his nation is a part, and the larger human race of which it is a coordinate. This presupposes both history and Philology, the history of mankind and the history of human thought. Now all this may be sneered at as " The higher Education". It is higher than many of the low conceptions that attach to education no doubt. But it is a conception which regards man as superior to that which he subdues and creates, which regards mind and its attributes above matter and its qualities, which regards the perfection of man as a thinking living existence as superior to the perfection of any material product of man. The higher education allies man with God, the lower education allies him with the earth.

I now desire to call your attention for a few minutes to the advantages offered by the State College. It provides an education for the Agriculturist which enables him to apply the principles of Science to the cultivation of the soil. He analyzes his soil in order to know its constituent elements. He analyzes his crops in order to know what constituent elements in his soil are available for the nourishment of the plants which he desires to grow. He is then able intelligently to supply by artificial means what is lacking. He is made familiar with the laws of animal and vegetable life and learns how to apply the conditions of soil and climate to their development. All this is an intelligent adaptation of means to ends.

In Mechanical Engineering, the student lays his foundation in Physics, Chemistry, and Mathematics. He is taught to design and to build the most complicated mechanism, making his own models, working out from given data the conclusions and testing the results obtained by practice. Our graduates in this course have taken high rank and obtained positions of trust and profit. When the Secretary of the Treasury advertised some time since for candidates to take the competitive examination for admission into the Revenue Cutter Service as Engineers the graduates of the State College carried of more prizes in proportion to numbers than those of any other institution in the country.

All our students without exception who have gone to Johns Hopkins University for post graduate courses have taken honors. One is now pursuing Archaeological and Classical studies in Rome on a fellowship with $500. a year. Another after taking a scholarship was elected Professor of Biology in Bryn Mawr and is absent from that institution on leave pursuing special studies in the Marine Laboratory Naples. Others fill honorable positions as professors and chief chemists in manufacturing establishments.

Not long since one of the most distinguished lawyers in Kentucky told me that upon the occasion of a professional engagement in one of the principal towns of South Eastern Kentucky he found the leaders at the bar State College men, and equal in ability to the picked men of any bar in the Commonwealth.

The State has made very liberal provision for the education of its sons and daughters in the State College. The Charter of 1893 provides that the State College shall stand in direct and intimate relation to the Common School System. Each Legislative representative district in the State is entitled to send each year a student to the State College whose appointment is valid until the appointee completes the Course of study selected. Under this appointment the beneficiary

may select the Agricultural, Mechanical Engineering, Civil Engineering, Classical, any of the three Scientific Courses, or the Collegiate Course in Pedagogy. The appointee is selected upon competitve examination, held under the auspices of the Superintendent of Schools in the respective Counties, the time and place being designated by him. Any graduate of the public schools may become a competitor for the Scholarship. The examination is made upon questions covering the Common School Course prepared and transmitted by the faculty of the College to the County Superintendents. The advantages attaching to the appointment are these ,viz: free tuition, free matriculation, free room and fuel and lights in the dormitories on the College grounds, and if the appointee remain ten consecutive months or one collegiate year travelling expenses from his home to the College and return. The law expressly says that other things being equal the award of scholarship on competitive examination shall be made to those whose means are small to aid whom this liberal arrangement is especially provided. I should qualify the general statement first made by noting that no provision has yet been possible for free rooms for young ladies, inasmuch as there are no dormitories for fem=ales on the College grounds and the Board of Trustees have hesitated to incur the possible risks which might attach to such an arrangement. Good board and lodging are however obtainable in private families at from $2.50 to $3.50 per week. These immunities and privileges render the cost of living at the State College comparatively small. Board is provided on the college grounds at $2.25 per week and this with the books and uniform constitutes the principal outlay of the student.
In addition to the foregoing privileges the State also requires that free tuition, matriculation, room rent, fuel and lights, and traveling expenses shall be given to four beneficiaries from each Representative district to the Normal School. These appointments

are made on identical conditions as those to the long Courses of study in the College but are tenable for one year only. If the Superintendents of County schools do their duty, each County would have four students in the Collegiate Courses of study and four in the Normal School.

One word in reference to the Normal School. Students matriculated in this Department receive instruction not only in Pedagogy proper, that is in teaching how to teach, but every other department in Science, in language, in Philosophy, and in Literature is open to them. The whole range of instruction embraced in all the Courses in the College is thus accessible to every Normal student, and for the purposes of his own special work every department in Science, Literature, Language, and Philosophy is subordinated to the Dean of the Normal School and made available for his purpose.

In no College in Kentucky are such advantages presented to those who seek an education. Every subject is taught by specialists with ample means for illustration and experiment, and all these advantages are provided to State appointees at a merely nominal expense. Upon the County Superintendents rests a grave responsibility. They have it within their power to bring the blessings of an advanced education within the reach of the energetic and ambitious young men and women of their counties, or they may by neglect of duty allow these possible advantages to count for naught. The County of Wayne for example had eight appointees in the College last year and the County of Fulton seven. The Counties of Muhlenberg and Hart had none. Eighty three Counties had representatives in the College, some more some less, thirty six had none. Who was responsible for this ? Not the College certainly. Circulars setting forth the main features of the law and embodying all the information required for Superintendent and applicant were sent in the early Spring, two months before the time required by law to each Superintendent in Kentucky, one circular for each school house in

his County, and the law makes it his duty to place one circular in each school house. How many Superintendents placed these circulars of information as the law requires ? How many utterly neglected the advertisement required by law setting forth the time and place of the examinationss to be held ? How many threw them into the waste basket and took no account of them ? And yet these duties form a part of the Common School Law of Kentucky.

In some departments of study the State College offers facilities for comprehensive attainments and thorough work superior to those offered by any other Institution in the South. This is specially true of Mechanical Engineering. No College south of the Ohio River possesses an equal plant and an equal Course of instruction, To all the sons and daughters of Kentucky its classes are open providing equal facilities for all and exclusive advantages to none. It takes rank with the great land grant colleges of the North and West in the thoroughness of its work and the breadth and variety of its Courses. We desire to make known to you and through you to the Counties and cities and towns which you represent what it has done and can do for the education of the young men and young women of Kentucky.

In the struggle for existence which is upon us the best educated teachers will get the best schools. The best certificate out of 115 in the County of Ohio was awarded last year to a State College man, and an equal distinction was won this year in Wayne County by a State College women These are not isolated instances but examples. In the struggle for existence the best educated men will lead in the liberal professions, in Agriculture, in Commerce and manufactures, in shipbuilding, in the Army and in the Navy. The rule of thumb method is passed. Men of exact and varied knowledge with ability to translate it into practice are the men who will be the masters of industry and the leaders of thought. Men who can coordinate brain power and strong intellect with the trained eye

and skilled hand are the men who will control the industrial activity of the world. Competition is so keen and the margin of profits in many competing industries so small that minute economies made possible through improved mechanism and intelligent workmanship controlled by educated masters determine the success or the failure of the great enterprises of the age.

Shall we provide the sort of education required by our citizens at home or allow them to go to sister States to obtain it ? Shall we provide them with an education equal to the best that can be gotten in harmony with our own traditions and determined by our own environment, or allow them to drift elsewhere to become inoculated with pestilent social and political heresies destructive of all that we have been accustomed to revere in the home and in the State ? Build up your own institutions. The School and the Church are the bulwarks of society and the pillars of the State. Let the one be thorough and the other pure and our civilization will be a noble one; a civilization not variable, barren, ephemeral; but constant, fruitful, and durable as the everlasting hills.

Gentlemen of the Commercial Club:-

I thank you for your courteous invitation to be present tonight and to say something relating to higher education in Kentucky.

Kentucky came into the Union in 1792. The majority of the early settlers of this Commonwealth came, as is well known, from Virginia, bringing with them the prestige and the reputation that attach to the Old Dominion. It is not too much to say that they were an heroic stock, that they braved the perils of the wilderness in order to lay the foundations of a Commonwealth which should take rank in prestige and in dignity with those which formed the vigorous nationality which was the first to claim and to attain the dignity of an independent nation upon the western continent. From 1775, the date of the founding of this city of Lexington, until the close of the War of 1812, Kentuckians distinguished themselves upon many a bloody field. The disastrous defeat of Blue Lick, the victory at Chillicothe, the fields of Tippecanoe, Dudley's defeat, the River Raisin, the Thames, and the crowning victory of New Orleans bore witness to the valor of her sons.

When the era of peace dawned upon the new Commonwealth and the nation, Kentucky maintained the enviable notoriety which she had won by the reputation given to her by the oldest of the educational institutions founded west of the Alleghenies. During the period embraced between 1820 and 1840, Transylvania University stood for higher and professional training throughout the west and south/in very much the same relation as Harvard, Yale, Princeton and Columbia did for the eastern and middle states. Her law school and her medical school trained almost all the physicians of eminence and the men who became prominent at the bar throughout the south and west. A period of decadence and eclipse overtook this famous institution about the middle of the century and in 1861, when I came to Lexington, only a shadow of her former glory remained.

She had ceased to discharge either collegiate or university functions and what remained of this once famous institution was little more than a high school. Of that remnant I was placed in charge and continued to act as its Principal until 1865, when it was consolidated with Kentucky University. The Legislature which united the two engrafted upon it the Agricultural and Mechanical College, for whose establishment and maintenance the land grant of 1862 provided.

The congressional legislation of that year gave 30,000 acres of public lands to each state in the union for each representative in the National Legislature. The allotment of Kentucky was 330,000 acres. This was disposed of by the sinking fund commissioners for fifty cents an acre, realizing from that magnificent endowment only $165,000. This invested in six percent bonds of the Commonwealth yielded $9900. annually, which sum was given to Kentucky University to carry on the operations of the Agricultural College while the connection subsisted. In 1878 the Legislature intervened and dissolved the relationship and in 1880 it was placed upon an independent footing. The Legislature of that year passed an act giving the college the proceeds of a tax of one-twentieth of a mill upon the dollar. The income from this, with the income accruing from the Federal land grant of 1862 formed the financial basis upon which it began its independent life. Notwithstanding repeated efforts made between 1880 and 1895 to repeal the tax levied for its benefit, all of which happily failed, the college continued to grow in public confidence and in numbers. Additional pecuniary aid came from Congress throughthe Morrill Act of 1890, from the State in 1904 and from Congress under the Nelson Act of 1907. These various items of income, with the annual appropriation provided for by the Legislature which has just adjourned, will make in the future the annual income of the institution about $180,000.

You are all aware that the late General Assembly changed the style and title of the institution from State College to that of State University. For many years we had been doing a good deal of university work. Indeed, properly speaking, we were the only institution in Kentucky that has done done in any proper sense university work for years. The question here occurs, what is the distinction between a college and a university? Generally speaking, it is this: A college confines itself almost exclusively to instruction in language, metaphysics, moral philosophy, mathematics and natural science, that is to say, in science, literature and arts, with the results that have already been achieved, and verified. It deals thus with the accumulated knowledge of the past.

While the university includes within the scope of its work what is properly denominated college work, that is to say, while it provides for instruction in Freshman, Sophomore, Junior and Senior classes, dealing with the already realized and systematized knowledge of the past, it takes on, in addition to these, work involving independent and original investigation and research. Take, for example, physics. It is well known that the body of knowledge denominated physics, as taught in collegiate institutions, is, as far as regards the past and the present, a completed body of knowledge, complete, that is, up to the present time, but Physics is a continually expanding science. Collegiate instruction deals with and instructs in physical science, theory and practice, as far as investigation and original research has hitherto gone, but investigation and research is not thereby closed, but rather stimulated and encouraged to reach forward in the field of discovery. New truths, new relationships, new applications, are being discovered by physical research every day. Compare the body of physical knowledge as realized up to 1847, when Lord Kelvin, then Sir William Thompson, became Professor of Physics in the University

of Glasgow, with the vast additions that have been made to it very largely through the independent and original researches of Lord Kelvin himself. The same may be said of Chemistry. Chemical science as known and taught by Benjamin Silliman and Sir Humphrey Davy and John Dalton bore but a small proportion to chemical science as it exists nowadays. I might illustrate from Biology, and Botany, and Archaeology, and Philology, from Geology and Palaeontology, from metaphysical research and from researches in the domain of ancient law, showing how the accepted conclusions of the past are modified by subsequent discovery, how these are all intimately associated with each other. Truth is undoubtedly one, but the various facets and relations of truths are infinitely varied. The conclusions of the physicist and the chemist modify profoundly the hitherto accepted conclusions of the geologist and the palaeontologist. The conclusions of the more conservative representatives of Darwinism or development, as it is sometimes called, have caused a general readjustment of previously received conclusions in every branch of science, indeed, within the whole domain of human knowledge.

For university work proper, as distinguished from collegiate, large endowments are necessary, large expenditures are required for laboratories, museums and libraries. Within the last twenty years, the income and expenditures of the older institutions of the country and the more advanced colleges and universities, founded under the land grant of 1862, have increased some four-fold, some six-fold, and some ten-fold. These increased expenditures have been liberally provided for through individuals and through state aid, and form the indispensable conditions upon which original investigation and research can be carried on. For example, Harvard University is expending more than a million and a half annually, Yale University $1,200,000., Cornell University $1,900,000.,

Columbia $1,400,000., the University of Illinois, the Universities of California, Minnesota and Michigan from $800,000. to $1,100,000.

Original investigation and discovery are not confined to what is properly known as the natural sciences. They extend to language, to history, to economics, to sociology, and for this work libraries rich in accumulated treasures of the past are indispensable. Take, for example, history. The historian of today who should hope to attract and to instruct the public, must bring to it the latest discoveries within the period and the domain with which he deals. The author who deals with American History would or rather should seek access to the archives of the War Department, of the Navy Department, the archives of diplomacy contained in the records of the Secretary of State, and the facts connected with legislation and the judiciary discoverable in the archives of Congress and of the courts of law. His statements and his conclusions would ~~not~~ be warranted only by a full consideration of all the facts bearing thereon.

So too in the realm of language. New facts are being continually brought to light illustrative of the language and the antiquity of Greece and of Rome. Suppose that the Latin tongue had been altogether blotted out of existence. The modern student of French and Spanish, Italian and Portuguese could from the grammars and vocabularies of these tongues re-construct in great measure the Latin out of which they have severally grown. When Sir William Jones, during the latter part of the eighteenth century, obtained access to the Sanskrit literature of ancient India, an examination of its vocabulary and construction disclosed to him its relationship to Latin and to Greek. Further examination by subsequent students of language discovered equally intimate relationships between the old slavonic out of which have grown the languages spoken by the Russians, the Poles, the Bohemians, and all the other branches of the slavonic stock, the Lithuanian, the Zend and

the Teutonic forms of speech. The close relationship of all these to Latin, Greek and Sanskrit led to the conclusion that they are all outgrowths of a language now extinct, which by common consent is denominated Aryan.

But for these investigations, collections of books and of literature extending as far back as the elements of written or of spoken language are recorded, whether in the papyri or the tombs of the Egyptians, the bronze tablets of Ancyra, the clay tablets and monuments of Assyria, and Babylonia, are indispensable. These explorations are still going on and every year finds new stores of knowledge accumulated for the antiquarian and archaeologist.

Now that we have a State University, instead of a State College, the question arises, what will you do with it, what will the Commonwealth of Kentucky do with it? Will it, by a judicious liberality supply the means necessary for it to accomplish the work which legitimately falls to its lot? Will you be found supplying it not with a scanty income of $120,000., or of $200,000., or of a quarter of a million annually, but with the means commensurate with your wealth and with its necessities, to enable it to do the work which it is called and expected to do? There never was a period in the history of the world when the demand for educated men and women was so great as it is now. In every department of industry, in agriculture, in manufactures, in the construction of roads, of steamships, the operation of mines, the distribution of the products of human industry, keen, educated human intelligence, with a rare adaptability to the exigencies of human enterprise are imperatively needed. Only the most highly educated can hope to become leaders of thought and leaders of industry. It will be the duty of Kentucky to perform an honorable part in supplying the nation with her quota of educated men and women.

Our Commonwealth has a well established reputation

resting upon the abundance of her minerals, the fertility of her soil and the value of the special products of her agricultural and manufacturing industries. In some of these, Kentucky has maintained hitherto both prededence and pre-eminence. This relative superiority will be maintained in the future by an educated and intelligent citizenship. She has borne an honorable part in art, in science, and in arms. Let her not be content to rest upon the laurels already won, but to achieve still greater distinction in the future.

Within the last fifty years the population of Lexington has increased four-fold. In 1860 the population of Lexington was double that of 1825, and yet in 1825, through Transylvania, she had asserted and maintained a preeminence, the prestige and the traditions of which still linger. With increased population, with annually increasing wealth, this reputation and this prestige should and must be maintained.

In Kentucky and Tennessee there is a larger Anglo-Saxon element than in any other State in the Union. The English-speaking race has, for more than three centuries, been moving steadily forward. The English language is now spoken by 150 millions of people. The preeminence of this English-speaking race in literature, in science, in art, in realized material wealth, in extent of dominion and in commercial supremacy is unchallenged. A century hence, the English tongue will be the language of civilized intercourse the world over. The United States of America is destined to an undisputed leadership upon the western continent. Great responsibilities, as well as great opportunities, are her heritage. Their influence upon the destinies of the world none can forecast, none can estimate. See that you, Kentuckians, proud of your heritage, proud of your traditions, proud of the achievements of the past, maintain the preeminence in the councils of the nation and in the direction of its affairs, in its discoveries and in its achievements to which your noble descent and your geographical position entitle you.

RUSSIA - GERMANY AND THE POTSDAM CONFERENCE.

The meeting of the Russian and German Emperors at Potsdam during the autumn of last year has given rise to much anxious speculation in the English and Continental press. This feeling of anxiety is shared by members of Parliament in Great Britain, of the Chamber of Deputies in France, of the Douma in Russia, and of the Reichstag in Berlin. Certain propositions were made by the German Emperor and his responsible advisers to the Czar and to his Foreign Minister who accompanied him, M. Sazanoff. The belief is that the propositions made were accepted in principle, but the details are to be worked out and transmitted by the Russian Minister of Foreign Affairs to the German chancellerie for its acceptance, modification or rejection. It will be within the recollection of our readers that about two years ago a very acute stage was reached in the relations of Germany and Russia. Austria, with the connivance of the Kaiser, had annexed Bosnia and Herzegovina, by a formal decree of annexation, with the Austro-Hungarian monarchy.

Austria had been requested, by the Congress of Berlin in 1878, to take over the administration of the provinces of Bosnia and Herzegovina, integral parts of the Turkish Empire in Europe. They were not, however, thereby detached from the Turkish Empire, to which their paramount allegiance was still, by the public law of Europe, due. Austria-Hungary in their administration undertook the office of

a trustee responsible to the signataries of the treaty of Berlin, and in this capacity was responsible to the public law of Europe. When Austria-Hungary announced to the great powers her intention to annex formally these provinces to the Austrian Empire, detaching them thereby from their allegiance to Turkey, the announcement provoked a storm of protest from everyone of the signataries of the treaty of Berlin, except Germany. The pride and political prestige of Russia were deeply wounded, inasmuch as Russia had heretofore been recognized as in a special sense the protector of the Slavic interests in the Balkan peninsula. In conjunction with France and Great Britain, she held that inasmuch as the administration of the provinces had been handed over to Austria by the great powers who signed the treaty of Berlin, it was in their exclusive competence to decide what the future of the provinces should be and they insisted that the great powers should meet again in council, in order to determine whether the proposal of Austria should be sanctioned or resisted. Germany stood by her ally and thus supported, Austria stoutly resisted and resented the suggestion of re-convening the congress, and with the support of her powerful German ally, felt sufficiently strong in her position to refuse absolutely her consent to submit the question to the assembled European powers. All the chancelleries of Europe were busy in the exchange of notes upon the question and at a critical stage of the negotiations the ambassador of Germany at St. Petersburg, in an interview with the Czar, presented the ultimatum of the Kaiser to the effect that unless Russia acceded to the demands of Germany

and withdrew all opposition to the action of Austria, that German troops would cross the Russian frontier within twenty-four hours. Russia was in no condition to resist or to prolong negotiations. Her recent war with Japan in the East had left her with an army disorganized and an exchequer bankrupt. She had already lost prestige not only in the Far East, but in the Middle East and in Europe, and without even consulting the other members of the triple entente, France and England, yielded to the imperious demands of the Kaiser. Austria, in defiance of the public law of Europe, annexed the provices, and concurrently therewith, Ferdinand of Bulgaria, a vassal of the Turkish Empire, proclaimed the independence of his principality.

It can easily be imagined that there was little cordiality of feeling for some time thereafter between the courts of Berlin and St. Petersburg. Germany has made repeated efforts to conciliate and to soothe the wounded susceptibility of her eastern neighbor, and it is believed that the meeting of the Emperors at Potsdam resulted in the reconciliation. The German Emperor, however, is not accustomed to deal in sentiment to the exclusion of business, and the impression prevails that the prime object of the meeting was to secure the concurrence of Russia in the railway projects of the German Emperor in the Middle East. It may be remembered that as far back as November 1899, a concession was obtained by Germany from Turkey for the construction of a railway extending from Konieh in the south-eastern part of Asia

Minor to Bagdad on the lower Tigris. An effort was made to procure the concurrence of France and Great Britain in the enterprise and to induce the capitalists of Paris and Berlin to form with the German bankers a syndicate to furnish money for the construction. Inasmuch, however, as the enterprise was looked upon as more political than commercial, the bankers of Paris and Berlin held back. Although the construction of the railway was begun by German capital, only a small section of the line has been completed, viz: From Konieh to Eregli, a distance of about 125 miles, leaving much the longer part of the line and much the more difficult untouched.

Russia meanwhile had concluded a treaty with Great Britain defining and limiting the respective spheres of influence in Persia and providing for harmonious co-operation in their political relations with the Empire of the Shah. In Northern Persia, recognized as within the sphere of Russian influence, the Russian government has projected a system of railways. The nearest point at which the Persian system would come to the termimus of the Bagdad railway is Khanikin. The Bagdad railway, if completed, would find its termination at Bagdad, and could not go farther in the direction of the Persian Gulf without the concurrence of Great Britain. The German Emperor is therefore anxious to link on the termimus of the Bagded railway at Bagded, with Khanikin, the nearest point of the Russian system in northern Persia, in order that the markets of northern Persia could be accessible to German commercial enterprise. The accomplishment of this object is believed to have been one of the principal objects discussed

at the Potsdam conference. It is also believed that a further effort will be made by Germany to obtain the aid of foreign capital in Paris and London. If so, the belief prevails that the western powers will insist that the Bagdad railway shall not be an enterprise exclusively German, but international in character, and that the commercial, as well as the political rights of France and Germany in the completion of the enterprise shall be recognized by formal treaty and arrangement.

Some surprise is expressed by the European press that Russia did not take the other members of the triple entente into her confidence, before proceeding with the negotiations at Potsdam. This surmise may or may not be well founded. The foreign offices of the chancelleries have been silent, and those who assume to speak with authority hold that Russia did not commit herself to any obligations at Potsdam inconsistent with the reciprocal duties owed by members of the triple entente to each other, and that in all probability the French and British Foreign Offices were cognizant of the propositions to be discussed in advance of the Potsdam meeting. All are awaiting, however, with much anxiety the forthcoming statement which has been promised by M. Sazanoff, in which it is alleged that an articulate and authentic statement will be made of what was discussed and what was agreed upon.

State College of Kentucky,
Jas. K. Patterson, Ph. D., LL. D., President.

Lexington, Ky.,

The Editor of the Herald keeps a well stocked menagerie ~~from~~ which he ~~draws~~ ~~without~~ uses for illustration inference and amusement. Lions Jackasses Coyotes Skunks and Broomsons ready, who duty
If his collection be as rich as we suppose it to be there are others malodorous, and foxes form part of this valuable collection, they add much to the piquancy and elegance of his Editorials, Indeed it is not conceivable how he would get through two columns of heavy and malignant matter without them, they furnish the sail while from the depths of his sabid consciousness he furnishes the ballast, there are living lions, and there are dead lions, but no one who knows the ~~malodorous~~ delicately scented Editor of the Herald

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Lexington, Ky.,

would suspect him of any ~~relationship~~ resemblance in any of the qualities popularly ascribed to the King of Hearts ~~of him a lion~~ either living or dead.

It not unfrequently happens that people ascribe to others qualities and characteristics which they themselves are conscious of possessing. His ample menagerie supplies him with concrete embodiments of these and his vituperative vocabulary furnishes the vehicle by which he endeavors to fasten them upon the objects of his dislike. "Thou wear a lions hide, doff it for shame and hang a calf's skin on those recreant limbs". People vulnerable in themselves and in their relationships should be careful how they throw their missiles.

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a halo of myth and legend long attached to the lion. His nature is better understood now. The following description may interest readers of the Herald and should have been supplied by the Editor. "The whole frame is extremely muscular, giving with the large head, flashing eye and copious mane a noble appearance to the animal which with its strength has led to its being called 'the king of beasts' and given rise to fancies of its noble and generous nature having no foundation in reality." The lion like the rest of the Felidae is pretty much a nocturnal animal. Its eyes are adapted for the night or twilight rather than the day". Lions rapidly disappear before Civilization". The Editor of the Herald who is presumably anxious ~~to present facts and~~ to eliminate myth and present facts only should have given the public the true basis on which to ground a rational inference.

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State College of Kentucky,
Jas. K. Patterson, Ph. D., LL. D., President.

Lexington, Ky.,

It often happens that people ascribe to others qualities and characteristics which they themselves are conscious of possessing. The well stocked menagerie of the Editor of the Herald supplies him with concrete examples of the obnoxious qualities ~~with which he is most familiar and~~ which he possesses in an eminent degree and with which he is familiar and his vituperative vocabulary supplies him with the vehicle for impeling them to the objects of his dislike. He has not yet exhausted himself. ~~The vipers and the Jackal are held~~ in reserve. He holds other typical qualities in reserve. The Lion and the Jackass the coyote and the fox have played their part. The Jackal and the vipers may now be brought on the stage

once

The Editor of the Herald is deeply interested in Natural History. He has studied carefully the traits of certain animals especially those possessed of the more truculent venomous and treacherous kinds, and makes heavy drafts upon his acquired knowledge for picturesque and graphic description.

It is no uncommon thing for men of talent to devote themselves to the cultivation of some specially remotely connected if at all with their ordinary avocation. Lord Avebury a banker and statesman of distinction is the highest living Authority on Bees and Ants. The Duke of Buckingham was Chemist Fiddler Statesman and buffoon. Why should not the Editor of the Herald add to his profession of Journalism, Law, General and Municipal politician, Trafficker in Real Estate, General censor, that of an Authority on Natural History. His feverish activity and Cacoethes Scribendi et Vitiperandi could not rest content with these activities and hence his natural desire for a wider field, to take all Science and all learning for his province

State College of Kentucky,
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with this difference that the affix was not transmitted to their descendants.

In these later times when there is an itch for genealogy and family trees and heraldic ancestry the custom might be revived. The cognomen might be blended with the nomen after this fashion. It might follow the Anglo Saxon, or the Celtic or the Welsh or the Slavic in which case we might have choice of the forms Lionson, MacLion, Ap Lion, or Leoniwitz. And then for the heraldic significance what could be finer for a coat of Arms than Lions Rampant for Supporters.

Of the three names which most Romans bore the third was called the Cognomen and was indicative of some peculiarity — which had made some member of the gens conspicuous. The Cognomen together with the gentilic name ~~and the indic~~ was thenceforward transmitted to all the ~~[illegible]~~ descendants. Had the Editor of the Herald ~~lived~~ been a Roman he might have borne the Cognomen Leonnatus. He might then have ranked with if he had not taken precedence of the Scipios or the Caesars. It is true that the Cognomen was seldom adopted from characteristic traits conspicuous in the lower animals, but precedent would not have been wanting. Catulus for example is supposed to have derived his name from a member of the Felidae closely akin to that of the King of Beasts. In mediaeval times the ~~[illegible]~~ Roman Cognomen appeared with the definite article, Richard the Lion hearted, William the Lion, Henry the Lion, though

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State College of Kentucky,

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Among the Romans it was quite common to add to the three names which most Romans bore a fourth called the

Re
Brestian [illegible]

I am not aware that up until this time a censorship has ever existed in the United States of America, neither in the nation, nor in any of the states of the union, nor in any educational institution of any state of the union. It was left for the State University of Kentucky to set the precedent, to create a precedent. On the western continent, a censorship exists in the black republics of Haiti and San Domingo, and in the eastern world a censorship is found in Turkey, in Persia, in Portugal, in Russia and in Afghanistan. Elsewhere for the most part, people have been free to obtain information, to discuss it and to express an opinion upon it, without license or penalty, provided it does not traverse the law of libel.

A new doctrine is introduced in the State University. All officials are forbidden to obtain, to discuss, to dissemi-

nate information relating to the University, unless by permission of the censor, the President. A proposition so monstrous looks like an attempt to make both the President and the institution ridiculous. A genuine relic of despotism, it is now sought to revive it in Kentucky; to throttle speech to cripple thought and to stifle its utterance, is to be the mission of the State University. It is perhaps nevessary, however, as a corollary to the power sought to be vested in the President, to appoint all professors, teachers and employees. Criticism of this absolutism might be inconvenient and hence the necessity for the censorship. Civil government has its checks and balances; university administration and control will have none. Government personal, despotic, irresponsible, will be the order of the day, above criticism, beyond cavil, surrounded by a group of sycophants, place-hunters and time-serv-

ers, who hold their places upon sufferance and who may be dismissed at any time upon the caprice and at the whim of the chief. Absolute power, lese majeste, censorship, a dead level of subservient mediocrity, will be the order of the day. The University will make a desert and call it peace. Freedom of thought, of word and of action are the necessary conditions and the essence of life in a free country. Their opposite results in acquiencence, stagnation. Take away the springs of life and life ceases to be. Is this the kind of an institution that the General Assembly of Kentucky provides for the education of the sons and the daughters of the Commonwealth?

Reprint of

Commencement Address

State University of Kentucky



By President James Kennedy Patterson

Delivered June 4th, 1908
Lexington, Kentucky

Commencement Address
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By President James Kennedy Patterson.

I think it not inappropriate, before the conclusion of these exercises, upon this auspicious occasion, to say something in reference to the State College of the past. This will form the necessary prelude to a brief reference to the present and may form the basis of a reasonable forecast for the future.

During the presidency of James Buchanan, a bill was introduced into the Congress of the United States by Justin S. Morrill, then a member of the House of Representatives, the object of which was to appropriate a part of the rapidly diminishing domain then known as the public lands to endow and to build up a system of schools throughout the Union, which should devote themselves to the education of the industrial classes, especially in agriculture and the mechanic arts. In 1857 Agriculture in America may be said to have been in its infancy, and the great manufacturing establishments which have become sources of untold wealth to the people of the United States were also in their infancy. The plea could then very well be made that they required the fostering care of the Government to protect them from injurious competition with the products of foreign countries. The object of Mr. Morrill was to build up an intelligent and industrious citizenry, who should utilize to the utmost the inexhaustible resources of the great agricultural communities of the United States of America, and to lay an in-

telligent basis upon which to establish and maintain productive industries through educated and intelligent artizans. This measure, although passed by both Houses of Congress, was vetoed by President Buchanan. During the second year of the Civil War, Mr. Morrill again re-introduced his bill, and although the country was then engaged in the most gigantic struggle that had ever taken place on this continent, Congress found time to legislate upon matters of far-reaching import, not only to that generation, but to the generations to follow. Mr. Morrill's measure carried with it an allotment of public lands, 30,000 acres for each representative in Congress to the several states of the Union, the proceeds of which should be applied to found and to endow colleges in each state, "wherein should be taught those branches of learning related to agriculture and the mechanic arts, without excluding the classics and other scientific studies, and including military tactics, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions of life." Provision was made that when the states then in revolt had been re-established as members of the sisterhood of states, they also should be made the beneficiaries of this munificent provision. Upon this foundation all the great institutions of the country founded since 1860, with the exception of Johns Hopkins, Leland Stanford, and the University of Chicago, have been established.

In almost all the states of the Union, these agricultural and mechanical colleges became the nuclei around which have grown up institutions of a scope and compass much wider and much more representative of educational necessities in their respective states than was originally intended by Mr. Morrill. The agricultural colleges of Michigan, Kansas, Pennsylvania, Massachusetts and Iowa have been content to remain agricultural and mechanical colleges pure and simple. Their states have voted large sums of money for their upbuilding and they have attained a degree of excellence comparable with the oldest established

and best managed agricultural colleges of the Old World. They have given to mechanic arts, however, an interpretation far beyond that originally contemplated in the organic law of Congress. While giving instruction such as would enable the mechanic to become an expert journeyman in carpentry and a skilled worker in metals, they have gone far beyond these simple conceptions. They have developed into technical schools of a high order, embracing engineering in all its phases and in all its relations, Mechanical, Electrical, Civil, Mining, Sanitary and Municipal. Many of them have equalled and not a few of them have surpassed the famous schools of technology of the East. With this interpretation of the principles of science as related to the mechanic arts and the principles of science as related to agriculture, they have been contented and have gone no farther. Other institutions, such as the Universities of Illinois, California, Missouri, Ohio, Wisconsin, Minnesota, and Cornell, have added to instruction in agriculture and the mechanic arts, classics, modern languages, elaborate courses in history, economics and sociology, English literature, biology, botany, physics, endowed and equipped upon a scale enabling them to do work of equal value with those of the older universities of the nation. They have expended thousands and millions of dollars upon the establishment of libraries and the creation of laboratories and the collection of museums whereby original research has been encouraged and prosecuted with a degree of success far surpassing the expectation of their promoters. A large number of these institutions have likewise added professional schools, law, medicine, dentistry and pharmacy, their object apparently being to embrace within the scope of their educational activity and resources all the knowledge of the time and to make provision for extending the boundaries of knowledge in every possible direction.

Kentucky made no effort to establish an agricultural and mechanical college until after the close of the war. The land scrip allotted to this state, amounting to 330,000 acres, would

if it had been judiciously located among the vacant lands of the west, have formed the basis of an endowment fund, large and ample for the necessities of the institution, especially during its earlier years. The Commonwealth, however, in the management of this delegated trust, committed two great mistakes. The land scrip representing this magnificent domain was turned over by the Legislature to the Sinking Fund Commissioners, who employed an agent to dispose of it for what it would bring upon the market. It was sold for fifty cents an acre and the proceeds of the sale invested in Kentucky State bonds, the interest of which, amounting to $9,900 per annum, was applied for the maintenance of the Agricultural and Mechanical College. This sacrifice of the fund given by the general government was the first mistake. The second mistake consisted in attaching the Agricultural and Mechanical College to a denominational school, making it a branch of Kentucky University, instead of placing it upon an independent footing. This was done by the Legislature of 1865. The Legislature, in forming the partnership with Kentucky University, reserved the right to withdraw the Agricultural and Mechanical College at any time that the public interests might demand. The relationship continued for thirteen years, namely, until 1878, when the General Assembly intervened and dissolved the connection, placing it in 1880 upon an independent footing and providing additional means through the imposition of a tax of one-half of one cent on each one hundred dollars of taxable property for its maintenance. The institution was when detached from Kentucky University, in the condition of a bankrupt, who through an ill-omened partnership of thirteen years had lost both time and money and when liquidation was ended, emerged from the partnership with nothing at all.

When the College began operations as an independent institution in 1880, its faculty was small, only six in number, its matriculates few and ill prepared for college work. Indeed, five out of every six were unfitted for college work and had to be pre-

pared in the Academy before entering the Freshman Class. $9,900 per annum, accruing from the congressional scrip fund, added to $17,500 per annum received from the proceeds of the tax, made a fairly good working income with which to begin. Indeed, the amount seemed so large that ere two years the denominational colleges of the Commonwealth took alarm and insisted that the Legislature of 1882 should repeal the tax and compel the College to limit its operations within an income of $9,900. After a fiercely fought contest, extending over three months, the movement to repeal was defeated. That was the first contest and the greatest contest in which the State College was during its history of twenty-eight years, involved. Its very existence, pending the legislative struggle, hung in the balance. Both its present and its future were by many of its friends despaired of. The belief prevailed that in the course of a few years it would have to close its doors and hand back to the general government the miserable pittance of an income which was all that the gross mismanagement of the Commonwealth got from an endowment of 515 square miles of public lands,

The City of Lexington had given the ground upon which the State University now stands. In addition to that, the city and county had given $50,000 for the erection of buildings. These buildings were in process of erection when the legislative contest opened. Misled by the architects employed, the amount of money at their disposal was found to be wholly inadequate to the completion of the college building and old dormitory. Their progress was arrested half-way, the college treasury was exhausted and the income from the State in imminent danger of being cut off. At this juncture the Board of Trustees were at their wits' end, they knew not which way to turn. An effort was made to obtain a loan from one or more of the banks of the city, to enable them to complete the buildings. They were met by the objection that the College had nothing to offer as security, either as realty or collateral. At this juncture, I intervened.

By economy I had succeeded in putting aside a small margin every year to the credit of profit and loss, and these assets, not very large, but representing about all I had, I placed at the disposal of the College. I went to the Northern Bank, put up my own securities, borrowed the necessary amount of money for the completion of the buildings and placed it in the hands of the Executive Committee. This tided over the difficulty so far as buildings were concerned, and to the surprise of the friends of the College and the discomfiture of its assailants, the House of Representatives laid the motion to repeal upon the table. The College was saved and its future apparently assured.

Pending the motion to repeal the tax, the opposition believed that they had discovered that the tax was unconstitutional, "that no money could be raised by taxation or otherwise for purposes of education other than in the common schools." This constitutional provision appeared upon its face to be absolutely prohibitive. An elaborate argument was made by Judge Lindsay, the attorney of the associated colleges, before the joint committee of the House and Senate. At the conclusion of his argument, the case of the College appeared absolutely hopeless. The Executive Committee had made overtures to some of the most distinguished lawyers in the Commonwealth, among others, John G. Carlisle, to defend the constitutionality of the Act. He declined to undertake the defense, because he believed that it would be impossible to sustain the constitutionality of the tax, either before an inferior court, or the Court of Appeals. Though not a lawyer, I ventured to make an argument before the Committee, at the conclusion of which the opinion of the large majority of those present was that Judge Lindsay had failed to make good his plea.

After the Legislature adjourned, the question of the constitutionality of the tax was raised in Louisville, Mrs. W. W. Hill refusing payment. The case came into the Chancellor's Court; the six protesting colleges were represented by Judge Lindsay, Alexander P. Humphrey, Bennett H. Young and James Trabue.

I was allowed by the Court to file as a brief the argument in reply to Judge Lindsay which I had made before the legislative committee and when the case came to the Court of Appeals, a like courtesy was extended. The composition of the Court was manifestly hostile to the College, but through the good offices of Judge Pryor, the case was held up until 1890, when its constitutionality was affirmed, Judge Holt delivering the opinion. He did me the honor to say that he decided the constitutionality of the Act upon the lines which I had laid down and upon the argument which I had presented in my brief.

Between 1882 and 1890, the College grew, not rapidly, but steadily, a better class of matriculates entering year by year, a smaller proportion in the Academy and a larger proportion in the college proper, but we were not left undisturbed. Efforts were made during every meeting of the Legislature in the intervening period to procure the repeal of the Act. The judgment of the court affirming its constitutionality in 1890, discouraged these efforts. Thereafter the biennial motion to repeal was introduced for several successive Legislatures, but the opposition grew less and less, until in 1898 it practically ceased. Meanwhile the income from the half-cent tax had been growing from year to year.

In 1887 the Congress of the United States passed an Act establishing Experiment Stations and appropriating $15,000. annually therefor. The State College of Kentucky shared in this beneficence of the general government. The Experiment Station was put upon a substantial footing, the income from the Station in connection with the income from the fertilizer law, provided the necessary funds for its effective operation. These two sources of income have been enlarged in subsequent years by the passage of the pure food act, the management of which is vested in the Station, and by the passage of the Adams Act by Congress, giving an additional annual increment of $15,000 per annum.

In 1890 a measure was introduced by Hon. Justin S. Morrill of Vermont for the further endowment of Agricultural and Mechanical Colleges. $25,000 per annum was given to each state which had availed itself of the benefits of the Act of 1862, but the full amount of $25,000 did not come to the State College. By the terms of the Act two alternatives were presented, either to admit colored students upon a footing of equality with the white, or to divide the appropriation of 1890 with them upon the basis of population. The College, of course, chose the latter, and 14½ per cent of this fund was and is applied to the maintenance of the colored school at Frankfort. In 1906 a further annual appropriation of $25,000 was made by the general government to each state upon identical conditions with those of the Act of 1890. In 1900 the Legislature appropriated $60,000 for the erection and equipment of a gymnasium and for the construction of a home for young women. Two years later $30,000 was added for the young women's home, and out of this fund, namely, $60,000, a very handsome and commodious building has been erected and equipped for boarding and lodging the young women matriculates of the College. In 1904 an additional $15,000 was appropriated annually by the State Legislature for income, and in 1908 $20,000 more, making in the aggregate from all sources, tuition fees included, a total income of about $125,000.

The city and county gave the grounds and the money in 1880 for the erection of buildings. Since then additional buildings have been added, until now, instead of two, there are fourteen buildings upon the college campus, with the prospect of two more during the present biennial period. The equipment for Mechanical and Electrical Engineering is the best south of the Ohio River. The Departments of Chemistry, Physics, Botany, Biology, Geology, Anatomy and Physiology, Languages, Ancient and Modern, Metaphysics, Ethics and Physical Culture, are second to none in the South. The faculty of instruction numbers nearly fifty persons. The heads of departments rank

among the ablest in the country, while the majority of the assistants are developing a talent for instruction which places them in the line of promotion. In the meantime, 250 acres of land have been bought for experimental purposes, representing an actual outlay of about $100,000, and an actual present valuation of about $130,000. The College Campus, with buildings and equipments, represents about $850,000.

All this, you will observe, has been created and developed within the last thirty years in the face of the fiercest and most determined opposition. Indeed, I make bold to say that no land grant college in America and no institution East or West, North or South ever encountered so many obstacles and survived. Through all its vicissitudes, its friends never faltered, and while at the close of each session of the General Assembly, they hoped that they had encountered and overcome the last assault, they had learned by experience, while secure of the past, to distrust the future and prepare for whatever the next succeeding Legislature might have in store for them.

A wholesome impetus was given to the College by the passage of the Ferguson Bill in 1893, making provision for the payment of traveling expenses and free tuition to county appointees. This wise legislation disarmed the opposition of the outlying counties and secured for the College a continuous supply of most excellent material. Some years thereafter, the affiliation of the best high schools of the Commonwealth with the State College brought annually a large number of well prepared students, honor graduates of their respective schools, and representative of the best culture and traditions of their respective cities and counties. Increasing income, as indicated above, enabled the College to strengthen its existing departments and accomplish larger and better results than had been possible before 1890. Moreover, the success attained by the alumni and the facility with which they obtained good positions with remunerative

compensation added largely to the prestige of the College and increased its matriculation list from year to year.

Thus, when the transition from the style and title of State College to State University took place, the University had a solid foundation upon which to rest and an honorable background behind it. The antecedent period had been stormy, the clouds from above frequently lowered, casting a shadow and a gloom over its present possibilities and its future prospects, but these from time to time lifted and through the rifts the sun shone ever and anon, indicating that even the darkest day may have gleams of light to cheer those who had been sitting in the shadows.

And now a word or two with reference to the future. I find that by looking over a report which I made to the Trustees in 1889, after making a tour of some of the Universities and Colleges in the North and West, that their endowments and income and prospects at that time, though bright as compared with ours, were not by any means so bright as are ours today. The income of the Ohio State University at that time, exclusive of the expenditure for the maintenance of the Experiment Station, amounted to $68,000. It is now $450,000. The income of the Agricultural College of Michigan was $63,000. It is now $288,000. The income of the University of Wisconsin was then $190,000. It is now $1,100,000. The income of the Agricultural and Mechanical College of Kansas in 1889 was $45,424. It is now $203,000. The income of the Missouri University was then $70,000. It is now $556,000. The income of the State College of Kentucky was then about $30,000. For the next fiscal year it will be $125,000. While we have not kept pace in growth of income with these other institutions, we have still, considering the undeveloped interest in education which obtained then and which to some extent obtains still, made very commendable progress. From this comparison, I think that we may anticipate with some degree of confidence a future for the State University of Kentucky commensurate with the successes of the past and with a

well grounded belief that in the no distant future we will far surpass them.

One word, before we pass to the distinctive feature of University work. After the establishment of the Normal Department in 1880, as one of the integral departments of the State College, wherein provision was made for education of teachers, I brought the question of admitting women to the State College before the Board of Trustees. Judge W. B. Kinkead, to whom I had previously communicated my views, gave me his cordial support. I represented that inasmuch as a large number of the teachers of the Commonwealth were women, that they could not, upon any fair interpretation of the statute, be excluded. On the contrary, that they must be included within the scope of the instruction given by the College. The Board of Trustees somewhat reluctantly acceded to my view and the doors of the Normal Department of the College were opened to women. Ere long it was found expedient no longer to confine them to the privileges of normal school work, but to open all the departments of the institution to them. Since that time they have formed a very appreciable percentage of the matriculation of each year, on the average, say, about twenty per cent. No distinctive courses for women have been provided, but all the courses of instruction leading to a degree and all the departments thereof have been made available to them upon identical conditions with males. A very considerable percentage of each graduating class consists of young women, whose education has embraced as wide a scope and has been of as thorough a character as that gotten by young men.

And now the State University stands before you strong, vigorous, symmetrical, disciplined by adversity, but victorious in every contest, "with charity for all and enmity to none", ready to set the pace for advanced education, for research, for discovery, it opens wide its doors and invites all to enter. In its history, setting out from small beginnings, the first twenty-five years of

its life a constant struggle for existence, the State University is a conspicuous example of survival of the fittest. Esto perpetua.

"Ours is no sapling, chance sown by the fountain,
Blooming at Beltane, in winter to fade,
When the whirlwind has swept every leaf from the mountain,
The more shall Clan Alpine exult in his shade.
Moored in the rifted rock,
Proof to the tempests shock,
The firmer he roots down,
The ruder it blows."

Now that the transition has been made from State College to State University, it is pertinent to inquire what the distinction between college and university may be. Stated in general terms, the function of the college is to teach; the function of the university is to discover. Collegiate instruction consists mainly in communicating to students the contents of knowledge already discovered and verified. The function of the university, on the other hand, is to extend the boundaries of human knowledge, to proceed from the known to the unknown, using the former as a basis for the discovery of new truths. Research then may be described as the characteristic and distinctive feature of university work. Investigation, experiment, discovery, verification, are the essential features of research. A new truth discovered may or may not profoundly modify our conceptions of the body of truth hitherto known and accepted. Induction from accepted conclusions leads either to new principles or to a modification of the old. That is to say, to co-ordination with accepted conclusions in collateral lines of research and discovery. These frequently lead to an adjustment of conclusions heretofore accepted in other systems of knowledge more or less intimately connected with each other. For example, the theory of the age of the earth and the duration of animal life, formerly believed

to be not more than 6,000 years, by discoveries in geology, palaeontology, embryology, biology, physics, chemistry, astronomy, and language, in fields closely related and in fields remotely related, all of which point in the same direction, is no longer tenable. The old system of chronology has been completely overthrown and while nothing definite has yet been discovered to replace it, it is quite certain that the period of terrestrial life cannot be embraced within less scope than millions of years.

It will be seen, therefore, that the honest investigator, the honest seeker after truth, must divest himself of all preconceived prejudices and as Prof. Huxley says, animated only by a fanaticism for truth, proceed with the work of research, altogether untrammeled by pre-existing views, following resolutely wherever the torch of science may guide him, even though it be through darkness and gloom.

The eighteenth and nineteenth centuries have been preeminently the period of discovery. The wonderful awakening of European thought which preceded and accompanied and followed what is commonly known as the Renaissance, has resulted in the discovery of a body of knowledge such as could not have been dreamed of or anticipated three centuries ago. Roger Bacon in the distant past dimly apprehended the cloud upon the horizon no bigger than a man's hand, and in a wonderful forecast which seemed almost prophetic, he indicated in general terms some of the most wonderful triumphs of modern scientific research. Copernicus followed, after a long interval, and demonstrated the true theory of the universe. Galileo still later and Leuwenhoeck, the one with a very rudimentary telescope, and the other with an equally rudimentary microscope, took the first steps in disclosing the infinitely large and the infinitely small. The earth was no longer the centre of the universe, but one of the smallest of the planets, revolving around a mighty solar centre, distant millions of miles. Animal life was no longer limited to visible forms, but millions upon millions of tiny ex-

istences found a local habitation within the compass of a drop of water.

The interpretation given to geological phenomena within the last hundred years has laid the foundations of the rational system of geology which now obtains. Physical causes by which the earth was gradually fitted to become the abode of animal life are now recognized to be identical with causes silently operating and with which we are quite familiar today. The more or less intelligent forecast of Democritus and Lucretius nearly two thousand years ago had no philosophic ground-work upon which to rest, but the ideas to which they gave expression found a prolific soil in the anticipations of Buffon, Wallace and Darwin, who established upon a firm basis the doctrine of evolution as now accepted and held by all the intelligent scientists of modern times. Those who remember the storm of dissent and invective which these alleged revolutionary views then encountered could scarcely anticipate the intelligent acquiescence with which they are now regarded. The Church of today feels no more endangered by the acceptance of the doctrine of the survival of the fittest than did the Churchmen who lived a century after Copernicus, Kepler and Newton feel that the foundations of their belief were shaken by abandoning the geocentric conception of the universe. The researches and discoveries in the domain of biology, chemistry, and physics have been specially prolific of good in these modern days. No one can measure the value of the impetus given to discovery in these realms of investigation by the far-sighted policy which induced Justin S. Morrill of Vermont fifty years ago to devote a part of the public lands of the United States to found and endow institutions of learning wherein those branches related to agriculture and the mechanic arts could be taught. These sciences were thus invested with a new dignity and a new significance. Hitherto pursued for their own sake, they now came to be pursued for the practical results certain

to follow their further application to the creation and development of wealth in agriculture and in manufactures.

The researches of John Dalton, early in the nineteenth century, led him to the conclusion that ultimate elements which he called atoms formed the foundation stones upon which the chemical and physical sciences are built. Davy, Farady, Tyndall and Kelvin stimulated further effort and discovery by their laborious investigations and brilliant generalizations.

The origin of life from a single cell and the growth of animal and physical structures from the multiplication of these cells introduced a new era in the conception of animal and vegetable structures and the application of science to the healing art. The discovery of anaesthetics by Warren and Simpson and of antiseptic surgery by Lord Liston have rendered possible the successful treatment of diseases which had been beyond the reach of human skill. And still later the discoveries of Koch and Pasteur enabled the modern practitioner to combat some of the dreadful scourges of humanity by the introduction of artificial cultures which render the patient immune to small-pox and hydrophobia, tuberculosis and scarlet fever. While these lines are being written, there is a well-grounded belief that tetanus and meningitis will soon be brought within the beneficent scope of these wonderful discoveries.

The most remarkable feature of the work of the chemist and the physicist is that however academic their results may at first sight appear, ere long they find a practical application in agriculture, in manufactures, in industrial enterprise, in physiology and hygiene and what is more important still, in the prolongation of human life, by enabling the medical profession to understand the etiology of disease and to apply a rational treatment for its removal.

Now it may be said that the function of the university is to afford facilities for discovery in these and kindred lines of scientific work. The discoverer works thoughtfully, patien tly

unremittingly, making use of, but holding in restraint while using it, his scientific imagination, actuated by the desire to discover truth and stimulated by the reputation which his discoveries may give him, he labors year in and year out for the enlargement of the domain and the boundaries of human knowledge and for the application of his discoveries to the well-being of his race. I believe that great as have been the discoveries of the fourteenth, fifteenth, sixteenth, seventeenth, eighteenth and nineteenth centuries, that the twentieth century, the century upon whose threshold we now stand, is destined to surpass and eclipse all the eras of scientific discovery which have gone before. I believe that before this century closes, human life will be lengthened, human comforts multiplied, the foundations of religious belief not overthrown, but established upon a firmer basis than ever heretofore, because resting upon the rock of scientific truth. Philosophical theories and religious dogmas will each be purged and purified, the dross and the tin will be removed and the pure gold remain. It will still be true that in the beginning God created the heavens and the earth; it will still be true that man is the ultimate goal of all sublunary creation; it will still be true that life and immortality have been brought to life in the Gospel of the Son of God; it will still be true that this life is only a prelude and an introduction to the immortal life beyond.

"Thou wilt not leave us in the dust,
Thou madest man, he knows not why,
He thinks he was not born to die,
And thou hast made us, thou art just."

In this onward march of human progress, what part will Kentucky play in the wonderful drama? Drama is action; drama is progress. Will Kentucky take up her role and play her part? And will the State University of Kentucky lead the Commonwealth in this onward movement to the realization of a glorious destiny? Laboratories will be provided, enthusiastic

men and women will apply themselves to unlock and to reveal and to disclose the secrets of nature. Every university in America will be a busy workshop, wherein the crucible and the telescope and the microscope and the spectroscope will be making new conquests every day. Will Kentucky in that ceaseless activity of correlated universities, play the part worthy of this Commonwealth and worthy of her traditions and her dignity?

The State University is the youngest of all the Universities of America, scarcely yet three months old, still in her swaddling clothes; but fifty years hence will see a mighty growth and a mighty development. Long before that period is reached, these grounds upon which we now stand will have been covered with buildings, each one a temple of science, each one with its own distinctive shrine, each one with its own group of worshippers. Instead of a thousand students, as enrolled last year, there may be ten thousand students grouped within these walls. Instead of a population of two and a half million from which to draw her student body, her army of workers, eager, energetic and indefatigable, there will be within the limits of this Commonwealth perhaps twenty-five millions of people. The agricultural resources, the mineral wealth, the manufacturing industries and the immense possibilities of Kentucky will invite population from east and west, from north and south. This will be the home of freedom, of industry, of enterprise, of men and women, stalwart in frame and beautiful in mind and in body. Will the Commonwealth of Kentucky and will the University of Kentucky rise to the height of this great conception and realize the destiny to which nature and God have called her?

