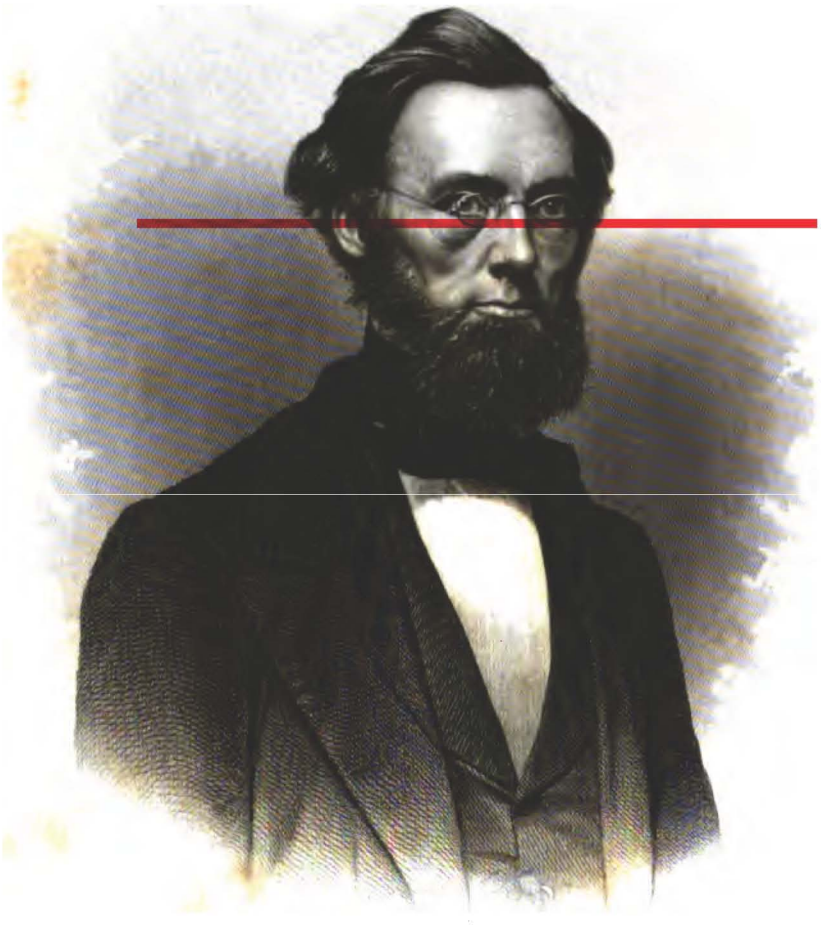

F. A. P. Barnard

Educational Biography.

MEMOIRS

OF

TEACHERS, EDUCATORS,

AND

PROMOTERS AND BENEFACTORS OF EDUCATION,

LITERATURE, AND SCIENCE.

Reprinted from the American Journal of Education.

EDITED BY HENRY BARNARD, LL.D.

Chancellor of the University of Wisconsin.

PART I. TEACHERS AND EDUCATORS

VOLUME I. UNITED STATES.

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THE memoirs which compose this volume, were originally prepared by the Editor, or at his request, and in some instances from material furnished by him, for the American Journal of Education, to accompany an account of the Institution, or System of Education, with which the subject was connected as founder, benefactor, or teacher. The plan necessarily included persons still living; but of them, the memoirs, so far as the editor's wishes were consulted, was confined to their educational activity—no attempt being made to dwell on other departments of their lives or character.

The selection is made mainly from the first five volumes of the Journal.

This volume will be followed by a second, devoted to Benefactors, and Promoters of Education, Literature, and Science; and to both, probably other volumes will be added, from time to time, in the hope of supplying an acknowledged deficiency in this department of English and American Literature.

Educational Biography.

PART. I.

TEACHERS AND EDUCATORS.

PART II.

BENEFACTORS AND PROMOTERS OF EDUCATION, LITERATURE, AND SCIENCE.

PART I.

TEACHERS AND EDUCATORS.

VOLUME I. UNITED STATES.

CONTENTS.

FREDERICK A. P. BARNARD.

FREDERICK AUGUSTUS PORTER BARNARD, president of the University of Mississippi, whose reputation as a practical educator entitles him, pre-eminently, to a notice in these pages; and who, as a writer on subjects connected with collegiate education, stands second to no other in this country, was born in the year 1809, in the town of Sheffield, Berkshire county, Massachusetts. His father, Robert Foster Barnard, a counselor at law, highly respected in his profession, and held in honor by all who knew him, for his distinguished moral worth, was an influential citizen of his native county, which he several times represented in the senate of the state. The subject of this notice is sixth in lineal descent from Francis Barnard, of Essex, England, who emigrated to this country about the year 1638, and was one of the first settlers of Hartford, Connecticut; but removed to Hadley, Massachusetts, in 1654. In the dangers to which the early colonists of New England were exposed, this family fully participated. One of the sons of Francis Barnard was killed, early in life, at the battle with the natives which, in 1675, gave its name to Bloody Brook, in Deerfield. Another, Joseph Barnard, from whom our subject is descended, was mortally wounded, in 1695, by a shot from a savage lying in ambush, who fired upon him as he was passing peaceably along, upon his proper business, through the forest. A third son, Rev. Thomas Barnard (mentioned third in order, but the eldest of the family,) settled at Andover; and from him are descended many of the name or blood, who reside in the eastern part of Massachusetts, among whom may be mentioned Rev. John Barnard, of Marblehead.

Through his mother, who was the daughter of Dr. Joshua Porter, of Salisbury, Connecticut, later in life of Saratoga Springs, and who was also the niece of General Peter B. Porter and Hon. Augustus Porter, of Niagara Falls, President Barnard traces his lineage directly, through six intermediate generations, to Roger Williams, of Massachusetts and Rhode Island, the early champion of religious liberty in this country; some of whose traits of character, particularly his firmness of purpose, strength of will, and fearless obedience to the dictates of conscience, whether by inheritance or otherwise, he certainly possesses.

The subject of our notice is indebted, for his earliest mental culture, to maternal solicitude. As a child, he attended the common school of his district, and had his place assigned him in classes in reading and spelling; but the tasks presenting no difficulty, because already familiar, through his mother's teachings, he found school indescribably irksome; and he has been often heard to speak of the childish perplexity with which he was then accustomed to regard his companions, while they were engaged in what they called *studying their lessons*.

He was, however, soon put to tasks which made him study. Before the end of his eighth year he was tolerably versed in elementary geography; and he had, with painful labor, and to his great disgust, been compelled to learn by rote all "the large print," with a good many qualifying "observations," and "exceptions," and "remarks," in less conspicuous type, in Lindley Murray's Grammar. It is perhaps quite unnecessary to mention that, of all this verbal erudition, he did not understand a single word; but that, as he never forgot any part of it, the meaning it was intended to embody was gradually revealed to him, as he acquired the ideas themselves, through other processes, later in life. After completing grammar, he was put into "parsing," in which exercise he was told that he would find his previous attainments very helpful. The force of this suggestion, however, did not come home to him very strongly; and he learned to parse by a process entirely inductive—by listening to older pupils, and by reading the "parsing lessons" placed at the end of Murray; the only part of the book from which he derived any benefit. He thus, by attention and comparison, became able to distinguish a noun from a verb, without troubling himself to apply the severe test of the definition, that "a noun is the name of any thing that exists, or of which we have any notion," or that "a verb is a word which signifies to be, to do, or to suffer."

Early in his eighth year he was advanced to the study of Latin. This part of his education was commenced under the private tuition of Rev. James Bradford, the minister of the Congregational church in his native town, whom he has ever held in grateful remembrance. The Latin grammar proved to be not in the slightest degree more intelligible to the learner than the English had been; but its contents pretty nearly from cover to cover were transferred to his memory, by the mechanical process which had already been made so painfully familiar; and they have there remained stereotyped throughout life, owing their ultimate intelligibility, as in the former case, to knowledge subsequently and otherwise acquired. It can not be questioned,

however, that this rote process has some advantages. The forms of declension and conjugation, the tabulated connectives, and the irregularities of a language, are, by means of it, indelibly impressed upon the mind; and they thus very much lighten the learner's subsequent labor. But to a child, the process is unpalatable to the last degree; and its tendency is to produce generally a dislike to books.

The subject of our notice, however, was, from his earliest years, very fond of books, when permitted to choose them for himself. The "*Tales for Children*" of Miss Edgeworth, and others, were early devoured. The school reading-books, except the dryer and didactic parts, were read and re-read. The "*Columbian Orator*" was a great favorite. The tastes thus acquired soon demanded superior aliment. Voyages and travels, history and dramatic writings, were sought after with avidity. One of the earliest books read, and long remembered for the delight it afforded, was Professor Silliman's narrative of his travels in England, Holland, and Scotland. It awakened the strongest desire to know the author—a desire which, to the young reader's satisfaction, was gratified later in life. A great part of Rollin's "*History*," and all of Shakspeare's "*Comedies*," and most of his "*Tragedies*," had been mastered before the age of twelve. The latter had been read again and again.

In the meantime, however, Latin was a weariness to both the flesh and the spirit; but it continued to be inculcated, and Greek also, for several years; the learner having been placed at school, first in the village of Saratoga Springs, and afterward at Stockbridge, in his native county. At the former place, however, he found something more attractive than Latin; having then, for the first time, enjoyed the opportunity of visiting a printing office. So strong a fascination for him hung about that spot, that he could not be prevented from devoting all the hours of his freedom from school, morning, noon, and night, and, above all, the "Saturday afternoons," so highly prized by school boys, for many months, to acquiring a practical knowledge of the magic art in his own person; and so expert a printer did he then become, that he has often, in his later life, lent an efficient hand, in emergencies, in offices with which he has had a connection, as author or editor.

In 1824, he entered Yale College, as a member of the freshman class; being the youngest member of a class long after noted for the weight of talent it embraced, and known as the mathematical class. Up to this time, he had given no attention to mathematical studies, beyond the elementary rules of arithmetic. It very early became manifest that a warm competition was to exist in the class, for the

first position in scholarship in mathematical science, and, for a time, young Barnard, excessively diffident in disposition, and as yet quite small in person, shrank from thrusting himself forward, when he was conscious that he lacked only self-possession to enable him to do so successfully. Knotty points were often thrown out to the whole class at once, any one being at liberty to rise and present solutions. It required some nerve for a boy of fifteen, to stand up and do this before forty or fifty critics and competitors, some of them of nearly twice his age. For some months, therefore, the peculiar character of his mind was not recognized; but, as he became familiarized with his new situation, and his diffidence wore off, he descended into the arena, and, from that moment, competition for the first position was at an end. From the beginning to the close of his college career, he was never, by accident or surprise, betrayed into an error before his class, on any mathematical subject; nor was he ever, for a single moment, at a loss to meet any demand made by the instructor, whether of himself individually, or of the class collectively. He never contented himself with the modes of investigation or demonstration laid down in the text-books, and rarely offered one in recitation which would be found in them. Beginning with the elements of geometry, in his freshman year, he amused himself with writing out novel demonstrations of all propositions and problems, to the end of the course; or until they became so varied and numerous, that he could not spare the time to write them. As a matter of course, he revelled in collateral reading in the mathematics; and, after his freshman year, he had invariably read and laid aside the college text-book, long before the class had taken it up. He never read a mathematical argument more than once; but usually addressed himself immediately to the task of making another and a better. In synthetic treatises, his habit was to confine his reading to the enunciations of the points to be proved, and to work out the argument for himself before examining the mode of treatment which the author had employed. It was, at that period, practiced by the instructors, to put forth original test propositions and problems, for the purpose of stimulating emulation, and exciting competition. These were invariably solved, almost within the hour, by young Barnard, and his solutions were often the only ones offered. There prevailed, also, then, to some extent, the practice of throwing out mathematical challenges, among the students themselves. Such challenges passed occasionally between members of different classes, and young Barnard was the object of a good many such. He never failed to send back the knot untied, within less than twenty-four hours. The tutor of his class in mathematics, dur-

ing the latter portion of his course, was the late W. N. Holland, afterward professor of mathematics in Trinity College, Hartford, himself distinguished for his mathematical abilities, and for his attainments in science. Mr. Holland, in writing of Mr. Barnard, in 1837, said: "I have never known any person, except the late lamented Prof. Fisher, who seemed to have so extraordinary a natural aptitude for mathematical studies. He soon outstripped all competitors in that department, and was, at the same time, a very excellent scholar in the classics, and in English literature. After graduating with the highest honors of his class, he became one of the masters of the Latin school, in Hartford; a station which, for many years, was offered only to the best scholars from Yale College."

We have dwelt somewhat at length upon the educational history of President Barnard, because his own notions of educational theory have been mostly derived from his personal experience. In all the course of his preparation for college, he had revolted against study, because he was compelled to learn what he could not understand, for the several reasons that difficult subjects were presented, before his mind had attained sufficient maturity to receive them; because they were presented in dry, concise, and technical language, too abstract for his comprehension; and because little effort was made by his teachers to compensate him for these disadvantages, by attempting, on their own part, to throw light on the obscurity. Whatever was intelligible, even in childhood, was pleasing; whatever was unintelligible, was repulsive. History, personal narrative, the drama, was delightful; language was odious. And yet this subject was only odious, because presented prematurely, or unintelligibly; for, in his later life, Mr. Barnard has been a passionate devotee to linguistic studies, and has made himself acquainted with all the languages of Europe, except the Sclavonic tongues. So soon as the subject of mathematics was presented to his mind, the clearness with which every truth stood forth in the light of demonstration, was completely fascinating, and he followed where it led, not as a task, but as a pleasure.

It is a doctrine, therefore, entertained by President Barnard, that the mind of childhood should rather be enticed than driven to the acquisition of knowledge. He further believes that the love of knowledge is so far natural, that no other excitement is needed but knowledge itself, intelligibly presented; and consequently that, in order that this condition may be secured, the subjects of knowledge, which form the substance of teaching, should be adapted to their order, and in the manner of exhibition, to the degree of maturity or development of the mind itself.

Mr. Barnard, after remaining two years at Hartford, where he published a treatise on arithmetic, which, in the words of Prof. Holland, "added much to his reputation, especially in the higher and more difficult parts," was elected to a tutorship in Yale College, being then just twenty-one years of age. This office he held but a year, having resigned it in consequence of an apprehended failure of health. During this time, however, he prepared and published an edition of Bridge's "*Conic Sections*," which has since been extensively used in American colleges, in which the work was substantially rewritten, and also considerably enlarged. It may serve to illustrate the estimation in which he was held, at the time, by Prof. Olmsted, who had been his instructor, to mention that he was engaged by that gentleman to examine, critically, the manuscript of his Natural Philosophy, then in preparation for the press. Another evidence of this consideration is found in the fact that Prof. Olmsted proposed to him, before his retirement, to come into an arrangement by which he might be his assistant professor, until such time as the college should be able to divide the chair, and give to Mr. Barnard the department of the mathematics—a proposition which would have been accepted, but for the cause above mentioned, compelling him to desist for a time from occupation.

While a student in college, Mr. Barnard had devoted the time given by most of his class to the study of the modern languages, to the prosecution of mathematical studies, in the higher departments of the science. Soon after his graduation, he perceived how indispensable to the scientific student is an acquaintance with some of the languages of continental Europe. He accordingly addressed himself to the study of the French, with such earnestness of purpose that in the course of a few months he had nearly dispensed with lexicons; and soon after began to read the language with the same facility as English. He afterward turned his attention to the Italian and Spanish, with similar success; and, at a later period of life, to the German, Swedish, Danish, and Dutch.

After his retirement from Yale College, Mr. Barnard became temporarily connected with the American Asylum for the Deaf and Dumb, in Hartford; and, during this period, he conducted, for a short time, the "*New England Weekly Review*," previously edited by Prentice and Whittier, successively. He did not long remain in this situation, however, having been invited to a corresponding position, in the New York Institution for the Deaf and Dumb. This institution, now occupying a rank among the first of its class in the country or in the world, had then just fallen into the hands of its present able

president, Dr. H. P. Peet; and one of the earliest and most satisfactory evidences which Mr. Peet gave of his clear-sighted sagacity, consisted in his judicious selection of his colleagues. It is believed that he will cheerfully testify not only to the activity, zeal, and success with which Mr. Barnard discharged the immediate duties of his station; but also to the ability displayed by him in assisting to bring the claims of this department of education to the favorable regard of the legislature and people of the state; and, still further, in directing the attention of the professors of the art in this country, to the scientific and psychological principles on which it rests. In the library of the institution, Mr. Barnard found a valuable collection of works, in foreign languages, on deaf-mute instruction. He gave himself to the perusal of these with avidity; and was thus led to enter upon a course of metaphysical study, and of investigation of the philosophy of language, which soon possessed for him all the fascination which the mathematics had exercised before. He published articles on the history and philosophy of the education of the deaf and dumb, in several of the higher periodicals of the day, as the "*North American Review*," the "*Christian Spectator*," and the "*Biblical Repository;*" and he prepared many able documents on the subject for the institution itself. The subject of grammar, of which the memories of his childhood were any thing but pleasing, became, at this time, so favorite with him, that he published a treatise of his own, entitled "*Analytic Grammar, with Symbolic Illustration*," in which the structure of language and the relations of the words which make connected speech, were visibly symbolified. The treatise found much favor with the philosophic, and would probably have come into general use as a school book, but for its association with a special department of education, and the impression that it was designed for learners wanting in one of the most important of the senses.

While pursuing these studies and prosecuting these labors, Mr. Barnard did not forget the favorite pursuits of previous years. Besides keeping alive his interest in mathematics, he engaged in the study of physical science, and became an assiduous observer of meteorological phenomena, including those of the aurora borealis, the zodiacal light, and shooting stars. Upon these, especially those of the first and last class, he made many observations, in concert with Mr. E. C. Herrick, the well-known meteorologist of New Haven. Some contributions of this date may be found, from him, in the "*American Journal of Science.*" He also prepared and published, about this time, in the "*American Monthly Magazine*," of New York, to which he was a

contributor, a summary of the existing state of electrical science, as connected with magnetism.

In the latter part of 1837, Mr. Barnard was elected to the professorship of mathematics and natural philosophy in the University of Alabama; and, on his way, he stopped at Richmond, Virginia, to advocate, before the legislature of that state, an institution for the deaf and dumb. There he encountered Dr. S. G. Howe, of Boston, who was there on a similar errand, in behalf of the blind. It was agreed that the friends of the two measures should unite their efforts; and the result of this union was the erection of the institution now in operation at Staunton, in which instruction is given, in different departments, both to the deaf and dumb and the blind.

Mr. Barnard entered upon his duties in Alabama, in the spring of 1838. During this year, he prepared and published "*The Alabama State Almanac for* 1839," which he designed to make a vehicle of scientific information, as well as a calendar, and a register of statistical matters, and other matters of fact. The astronomical computations were by himself, unassisted; and the remaining contents, also, mainly by himself, were interesting and valuable; but the sale did not repay the very considerable expense of publishing such a work in Tuscaloosa; and it was, therefore, impossible to continue it. A literary magazine, entitled "*The Southron*," having sprung up about the same time, was mainly sustained by the contributions of Prof. Barnard, and two gentlemen, both of whom have since become pretty widely known to the country, Hon. A. B. Meek and Hon. W. R. Smith. For a number of years, also, Prof. Barnard was the unavowed editor of "*The Independent Monitor*," a weekly newspaper, printed in Tuscaloosa; and, during this time, his pen was excessively prolific, and was employed on a wide range of subjects. As an editor, his writings were marked by a cheerful vein, mingled with a constant flow of humor; and no oracle of the tripod has probably ever been more favorite in Alabama, than he. He contributed, also, occasionally, and for a time regularly, to the other weekly newspaper in Tuscaloosa, the "*Observer*."

While in Alabama, Prof. Barnard published a new arithmetic, which came, for a time, into pretty general use in that state. He also directed the construction of the astronomical observatory of the University of Alabama; but, owing to his subsequent acceptance of the chair of chemistry in the university, it did not continue to be under his management. He was frequently called upon to deliver public addresses, on occasions of interest. One of these was in commemoration of the "*Life and Public Services of Hon. W. R. King*,"

pronounced in compliance with a request tendered by the citizens of Tuscaloosa, irrespective of party. Another, which was published, and which was very flatteringly noticed, in many quarters, was an oration before the Alabama Alpha of the Phi Beta Kappa Society, upon the subject of "*Art Culture.*" He also lectured repeatedly, on scientific subjects, before popular audiences, in Tuscaloosa, and elsewhere; and, on several occasions, commanded crowded audiences, in the state house, during the sessions of the legislature.

On the publication of the accounts of the photographic discovery of Daguerre, Mr. Barnard, even before the processes were disclosed, entered zealously upon a series of experiments, relating to the art; and he very early addressed a communication to the "*Journal of Science,*" giving a mode of preparing plates, by the use of chlorine gas, of such sensitiveness, as to receive an instantaneous impression. Such methods were, about the same time, introduced elsewhere; but the reagent employed was different; and Mr. Dana, in acknowledging the communication, stated that it was the first account that had appeared, of the successful application of chlorine to this interesting art.

In the year 1846, a joint commission was appointed, on the part of the states of Alabama and Florida, for the purpose of settling the boundary line between their territories, which had always been in dispute. This boundary is the treaty line between Spain and the United States, which was run between the years 1796 and 1799; and should be the 31st parallel of latitude. The commissioners, on both sides, were to be assisted by astronomers and surveyors, appointed in the interest of the several states. Prof. Barnard was appointed, by Gov. Martin, as astronomer on behalf of the State of Alabama. The parties met on the banks of the Chattahoochee, at the disputed line, in November, 1846. The astronomer appointed on the part of Florida, failed to appear; and Prof. Barnard was accordingly appointed on the part of that state, also. After the necessary observations had been made at the Chattahoochee, and as far from the river as was thought necessary, the commissioners resolved to commit the entire remaining part of the examination to Prof. Barnard and his assistants, alone; and he accordingly proceeded along the line, from the Chattahoochee to the Perdido, and thence into Alabama, to the Tensaw; the monuments being found still to exist along the parallel, all the way to the Mississippi River. His report on the results of the examination, which was laid before both legislatures, had the effect to settle the controversy immediately.

In the year 1848, the chair of chemistry in the university became

vacant; and Prof. Barnard was induced to accept it. He immediately gave a great development to the system of instruction in that science, as it had been previously conducted in that institution, or rather remodeled the system entirely; introducing experimental illustration, on the most ample scale. Desirous, also, of enlarging the usefulness of the university, as well as of introducing a species of influence, favorable to the manners of the students, he invited the young ladies of the Female Institute of Tuscaloosa (there being at that time but one seminary for young ladies in that city, where there are now four, all of them flourishing,) as well as the ladies of the city, generally, to attend his lectures, at the laboratory; an invitation which caused his lecture room to be much frequented, and often to be thronged to excess.

During the period in which he held this professorship, he continued to cultivate his mathematical studies; and among other evidences which he gave of this, may be instanced a series of papers in the "*American Journal of Science*," on the subject of the Mechanical Theory of Heat, and the conditions essential to the success of engines driven by heated air.

In the fall of 1853, he was appointed a juror in the Exhibition of the World's Industry, held in New York City; but was delayed in attendance, until the jury to which he was attached had completed its labors.

In the year 1855, the British Association for the Advancement of Science extended special invitations to a limited number of the men of science of America, to attend their annual meeting, held that year in in Glasgow. Mr. Barnard received the compliment of one of these invitations, but was unable to attend.

During the latter part of his connection with the University of Alabama, some of the friends of that institution set on foot a project for the remodeling of the system of instruction, in such a manner as to leave to every student the free option to select for himself the studies he would pursue. This scheme alarmed the friends of sound education in Alabama, especially when it began to appear that strenuous efforts were making, through the press, to prepossess the popular opinion in favor of the change. These, therefore, resorted to the same channel for disabusing the public mind of error, which had been employed to propagate it; and accordingly a very animated discussion occupied the columns of many of the papers of the state, for several months. In this discussion, Mr. Barnard took a very active and zealous part, in vindication of the time-honored system, which was threatened with destruction; and his articles produced a very perceptible impression

upon the conductors of the press, no less than upon public sentiment generally; and were probably more instrumental than any other, in arresting the tendency to favor the spirit of destructiveness, which was beginning to be very distinctly manifested.

In obedience to a requisition of the board of trustees of the University, communicated to the faculty in July, 1853, a committee of the faculty was appointed to report a plan of reorganization, in conformity with the views of the advocates of change. Of this committee Mr. Barnard was chairman. The committee, in conformity with instructions, reported such a plan as had been required of them; but the majority of the committee, consisting of Prof. Barnard and Prof. J. W. Pratt, presented an additional report, embodying an elaborate examination of the plan, and its emphatic condemnation. In this report, which was drawn up by Prof. Barnard, the expediency of the proposed innovation is examined in the light of the experience of those institutions which have given it a full or a partial trial; and it is shown, by an extensive collation of facts, to have resulted in practical failure, in nearly every such instance. The plan, however, is more uncompromisingly condemned, upon higher and purely philosophic grounds, drawn from a consideration of the objects of educational discipline; and the dangerous fallacy which underlies the popular objection to many collegiate studies, viz., that they are not practical, is energetically exposed. The report concludes with the citation of the written opinions of many of the ablest educators in the country, upon the point in discussion, which are shown to be, with singular unanimity, hostile to the proposed innovation.

Some passages in the report are sufficiently remarkable to deserve citation here. The following tribute to the value of classical learning, carries with it the more weight, as coming from a man whose natural tastes had inclined him almost exclusively to the cultivation of science, and whose professional pursuits might have been supposed likely to make him forgetful of the amenities or the uses of literary study:—

> If the study of language generally has the value which is here claimed for it, that of the languages of ancient Rome and Greece possesses this merit in an eminent degree. In them those principles of the philosophy of speech, to which allusion has been made, and which constitute in their systematized form the science of general grammar, are more perfectly and more happily illustrated, than in any other known tongues, living or dead. And not only is it true that, as languages, they thus furnish, to the linguistic philosopher, the most interesting, as they do at the same time, to the youthful student, the most improving of all the subjects embraced in this department of knowledge; but, also, it most fortunately happens, that their literature presents the happiest examples of language in its proper use—the most unexceptionable models of historical, dramatic, poetical, metaphysical, and oratorical composition, that the world has ever seen. We have, then, in the Greek and Roman tongues, the instrument of human thought in its most perfect

form; and, in the Greek and Roman classic authors, the application and the uses of the instrument, in their most admirable and elegant illustrations. So strongly have these considerations impressed the educators—it may almost be said universally—of all modern time, that the perpetually recurring cry of the "practical men" of the entire century which precedes us—*Cui bono?* what will all this Latin and Greek do for us in the business of spinning cotton and raising potatoes?—has been of no avail whatever to dislodge the classics from our colleges, or even to unsettle the firmness of the tenure by which they maintain their prescriptive prominence there. In view of these considerations, how empty and shallow does all this revolutionary clamor appear! And of how utterly trivial importance is it, whether the student, who has experienced the inestimable benefits which spring from a thorough study of the "Humane Letters," remembers, or fails to remember, through all his after life, the mere facts of knowledge which, as necessary incidentals to this training, he picked up during his student career!

After some further examination of the specific modes in which classical study benefits the learner, and after the citation of the opinions of distinguished educators on the subject, the report proceeds:—

But while thus the value of classical study, in the subjective influence it exercises upon the student, is vindicated not only by a consideration of the nature of the study itself, but also by the testimony of judicious educators every where, even of those who have consented to its optional banishment from the college curriculum, it is not difficult, after all, to disprove the assertion, so frequently and so flippantly made, that the knowledge which this species of study furnishes to the youth is without any practical use in later life. And here, in employing the words, practical use, the undersigned would not be understood to intend a use so intensely and literally and materially practical, as to manifest itself in superiority of skill in planting cotton, or unusual wisdom in managing stock; for, if a test so gross is to be applied to the attainments of the scholar in every department, many other branches of learning, besides the ancient classics, will fall under the ban. But if propriety of speech, ease, and copiousness of expression, and those various graces of conversation, which distinguish the man of letters, may be regarded as practical benefits to their possessor; if the greater respect which they enable him to command from his surrounding fellow men, is a tribute worth receiving; if the substantial addition to his influence over others, and to his power of benefiting mankind, which they bestow, be not a thing to be despised; then will the man, in whose youthful culture the ancient classics have not been overlooked, carry with him, to the latest day of his life, advantages derived from their study, which no sordid computation of dollars and cents can ever adequately represent.

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And, on this point, it may finally be added that, in the present state of the world's literature, some familiarity with the classic authors of Greece and Rome is, to any man who aspires to the name of a scholar, simply a necessity. The literature of all modern Europe is inextricably interwoven with that of Greece and Rome—and our own no less than every other. We can not be literary men, and yet be ignorant of the classics. The idea is utterly preposterous; and all the attempts to decry the ancient learning, by representing it as so much "learned lumber," and thus endeavoring to bring it into disrepute, will have no other effect than to awaken the suspicion, or establish the certainty, that their originators are no better scholars than they should be, themselves.

Is it possible, then, that the trustees of this university will deliberately resolve to award the honor of graduation, to confer the diploma, which, from the earliest history of colleges, has been recognized only as the certificate of genuine scholarship, upon men who willfully neglect that which always has been, and inevitably always must be, the first essential to the scholar? Is it possible that they will do this ruinous thing, at a time when the university is in the enjoyment of a sound and healthy prosperity, such as it never has experienced before; and such as, to all who have been familiar with the early history of other colleges, is not only satisfactory, but highly encouraging? Is it possible that they will do it, with the evidence before them of an entirely tranquil contentment pervading the whole people, in regard to the system of instruction in operation here; and in view of the fact

that the proposition for a change, published every where throughout the state, has awakened only an occasional and feeble response; while it has, at the same time, elicited from the scattered friends of sound education so numerous, and elaborate, and able vindications of the existing order of things, as to prove, beyond all question, that the sound sense of the people is satisfied with what we have, and asks for nothing better? Is it possible that they will do this, and, in doing so, substitute, in place of a tried and approved system, one which has not even the guaranty of past success to recommend it; but which is actually, in spite of all impressions heretofore existing to the contrary, unpopular at home, and which has, in point of fact, already broken down in every other institution which has attempted to borrow it? Surely this can not be.

One of the striking points made by the report is, that the University of Virginia, which is so often referred to in evidence of the popularity of the "open system" of university teaching, furnishes in its published catalogues conclusive evidence that this system, in so far as relates to under-graduate instruction, is unpopular in the State of Virginia itself. The report states that:—

The catalogue of the University of Virginia, last published (for 1853–54,) shows a total of students, belonging to Virginia, of 289.* But, as a considerable number of these are students of law and medicine, they certainly, in a comparison like this, are not to be counted. By a careful enumeration, it appears that the number of these professional students, belonging to Virginia, is 126. The students in the department of arts are, therefore, only 163. According to the United States Census for 1850, the total white population of Virginia was, in that year, 894,800. The same authority gives the total white population of Alabama, at the same time, as 426,514. According to these figures, if the University of Virginia is prosperous while the state furnishes it *one hundred and sixty-three* students of arts, ours ought to be equally so, so long as we have as many as *seventy-seven*. But the catalogue of the University of Alabama, published last November, contains the names of *ninety-eight* students of arts from Alabama; and, if we add those who were admitted after the publication of the catalogue, we shall have *one hundred and seven*. Is there any ground, then, for asserting that our numbers are feeble; or that Alabama does not patronize her own university as well as other states do theirs? Should the assertion be still adhered to, it can be established only by comparison with some state institution in which the close, instead of the open, system of instruction is maintained; and hence the whole inference, which it has been sought to derive from this fact, will fall to the ground.

In truth, the comparison just made is most disastrous to the claims of the Virginia system, as it respects its actual popularity. For, be it observed, a main reason why we are urged to adopt that system is, that the existing one is so hopelessly unpopular as to render some destructive outbreak in the legislature, or among the people, all but absolutely inevitable. Yet, unpopular as it is (if these assumptions are true,) it is manifestly, as the figures themselves show, nearly fifty per cent. more popular in Alabama, than the system of the Virginia University is in Virginia.

Further on in this report, the argument is resumed, as follows:—

The very small number of students of arts furnished by Virginia to her own university, as has already been shown earlier in this report, is evidence enough that the system has not the approbation of Virginians themselves. This fact will appear more unanswerably true, if we extend the comparison to other colleges, where the close system is severely carried out. The College of South Carolina, for instance, exhibits a list of 189 under-graduates for the collegiate year 1853–54, of whom 175 are furnished by the State of South Carolina itself. The total

* The total number of students in the University of Virginia, during the year, from all the states which furnished to it students, was much greater than this. The nature of the argument required the comparison to be confined, however, to Virginia alone.

white population of the state, according to the census of 1850, is 274,563; while that of Virginia, as already stated, is 894,800, furnishing only 163 students of arts to the State University. If South Carolina patronized her college no better than Virginia does her university (the professional schools apart,) she would send to Columbia but fifty students instead of 175. The South Carolina College is one of some standing in years. Let us take another, also maintaining rigidly the close system, which has been in operation only for a limited period—the University of Mississippi. The total number of students on the catalogue of this institution for the past year is 158; from which, subtracting all but those whose residences are in the state, and who are pursuing the regular under-graduate course, we shall have 134, upon a population of 295,718. Yet, if Mississippi were no more partial to the course of education in her university than Virginia seems to be to that which hers has adopted, she would furnish to it only fifty-three undergraduate students.

In the following table are presented the results of similar calculations for a number of colleges, whose catalogues happen to be at hand. The dates are the latest accessible, and are all recent. In the first column are placed the number of under-graduates which each state would furnish to the college belonging to it, if it furnished the same number, in proportion to population, which Virginia furnishes to her university; and in the second are placed the actual members present, as given in the several catalogues, excluding all from other states, and all who are not regular under-graduates:—

	Proportional Number.	Actual Number.
University of Virginia,	163	163
University of Alabama,	77	107
South Carolina College,	50	175
University of Mississippi,	53	134
University of Georgia,	95	107
University of North Carolina,	100	139
Yale College,	66	135
Harvard University,	178	238
Dartmouth College,	57	160

It appears to the undersigned that facts of this nature, and which admit of being multiplied to a much greater extent, combine to furnish an absolute demonstration that the system of instruction practiced at the University of Virginia is, for students not attending the professional schools, absolutely out of favor and unpopular where it is best known—in the State of Virginia itself. It appears that not one single consideration exists to encourage the belief that that system, transplanted here, would be any more favorite with the people of Alabama than it is in Virginia. It appears that, though the name has become a popular catchword among those who have urged the remodeling of our own State University, yet the reality which it represents is not at all that thing which it is evidently here supposed to be; and that its introduction with us could only lead to immediate disappointment, and ultimate dissatisfaction and disgust.

The faculty of the University of Alabama, to whom this report of the majority of their committee was read, directed it to be presented to the board of trustees. It was accordingly read before that body, at a special meeting, held toward the close of September, 1854. The board, some of the members of which had been partially committed to the view that some modification or other ought to be introduced into the plan of instruction; and being at the same time convinced of the injudiciousness of adopting the proposed radical measure of change; fell, in the end, upon a sort of compromise, by which, without touching, or in any way impairing, the system of previous years, they endeavored to throw the university more widely open than before to students who should desire to select their own studies. The

regular classes, and the four years' course, were suffered to stand, but the names of the classes were changed from freshman, sophomore, &c., to "class of the first year," "class of the second year," &c.; and the hours of recitation were so arranged as to permit a student, not a member of a regular class, to recite in such subjects as he should choose to select. Professor Barnard, though with reason abundantly satisfied with the substantial success which had crowned the exertions of himself and his associates in this severely contested struggle, yet regarded even the trivial concession which had been made to the spirit of change as an error, and predicted that its advocates would themselves be early convinced of the fact. The prediction was fully realized, even earlier than he had imagined; the university having abandoned the experiment at the end of the third year, and returned, in all particulars, to the system which existed before the change.

During the same year, 1854, the subject of college government was discussed in the public journals of Alabama, with an animation hardly less warm than that which had marked the struggle in regard to systems of instruction. Grave exceptions were taken to the disciplinary code, as it at that time stood; and suggestions were thrown out for its improvement, such as, for the most part, served only to illustrate the want of practical knowledge, on the part of the censors, of the subject which they undertook to treat. To some of these suggestions Mr. Barnard was led to reply, in a letter addressed to Hon. A. B. Meek, one of the editors of the "*Mobile Register.*" Having once broken ground on the subject, however, he followed it up in a series of communications, addressed to the same gentleman, in which he undertook to show that the complaints, so often heard on the subject of collegiate discipline, ascribe the evils which exist to erroneous causes altogether, and fail to recognize the true causes, which are simply the isolation of the youthful community, its immunity from the restraints of public opinion, and its practical freedom from the ordinary operations of municipal law. He maintained, with earnest emphasis, that nearly all the vice which college associations engender, and by far the greater part of the troubles with which college government is embarrassed, grow out of our perpetuation of a system which originated in a different age, and in a different state of society, from that in which we live; which was, in its origin, surrounded by securities which we have totally discarded, and can not resume, if we would; and which compels us to profess to exercise a degree of moral restraint over young men, which we have no means to make effectual. What is called the "dormitory system" is therefore regarded by Mr. Barnard as containing in it the source of most of the evils

encountered in the management of colleges; and for these evils he sees no effectual remedy, short of the abandonment of the system itself. The practical difficulty which prevents the application of the remedy—immediately, at least—in the case of the greater part of the collegiate institutions of the country, is to be found in their location in small villages, or in positions entirely isolated, where students can not obtain accommodations, except such as the dormitories afford. The original selection of such locations, Mr. Barnard regards as an error of great magnitude. It seems to have been occasioned by a prevalent impression in regard to the freedom of such locations from temptations to idleness or vice, which he looks upon as quite illusory; but it has entailed upon the institutions themselves many disadvantages and embarrassments, which are very palpable and real.

The impression produced by these letters upon the friends of education in Alabama, and elsewhere, was such as to occasion a demand for their republication, in a more permanent form. They were therefore collected, and, with some slight revision, given to the public, in a thick pamphlet, in December, 1854.

While these matters were occupying the thoughts and the pen of Mr. Barnard, he engaged also, with much zeal, in the advocacy of projects of internal improvement, by which the rich resources of central and northern Alabama might be brought into communication with markets, and so rendered available. Upon this general subject, and upon particular schemes for connecting Tuscaloosa and the country north of it with the sea-board, he prepared and published many forcibly-argued papers; and he, at the same time, availed himself of opportunities offered by railroad conventions, and other public meetings, to address the people, in person, upon the same topics. During the summer of 1854, he also published a series of papers, in one of the daily journals of New Orleans, earnestly urging the importance of an air-line of communication, between that city and Chattanooga, Tennessee; by which the air-line chain, extending from Maine to Louisiana, would be completed. The portion of this work within the State of Alabama, is now under construction; the extension through Mississippi to New Orleans, remains to be undertaken.

In the month of September, 1854, Mr. Barnard was elected to the professorship of mathematics and natural philosophy in the University of Mississippi, at Oxford. This was an infant institution, which had been in operation only six years; having been established on the foundation of a donation of lands made in trust, by congress, to the legislature of Mississippi for the purpose, at the time of the admission of the state into the Union, in 1817. The state had sold the lands many years

ago, and had received the proceeds into the public treasury. From time to time, laws had been passed, providing for the periodical statement of the account between the treasury and the seminary fund; but these laws had been but imperfectly complied with; and, during the long period which had elapsed without any measures having been set on foot to carry out the intention of congress in making the donation, the whole subject had become so perplexed, that no one at this time (1854,) definitely knew what was the actual state of the case.

At the time of Mr. Barnard's election to his chair, the university was greatly in need of funds. Its buildings were wanting in extent of accommodations, and in arrangements convenient for experimental instruction in science. Its library was small, its apparatus imperfect and deficient, and its collections in mineralogy, geology, and natural history, extremely meager. The necessity was apparent to the board of trustees, of applying to the legislature for relief; and this was brought the more strongly to their convictions by Mr. Barnard's urgent representations of the wants of the scientific departments, and the importance of greatly enlarging the library. The trustees, therefore, at their meeting in July, 1855, appointed a committee to memorialize the legislature; and the duty of preparing the memorial was assigned to Mr. Barnard. In this document, which is carefully drawn up, and condensed as far as practicable, consistently with its design, the argument in favor of extending a liberal support to the university of the state, considered as the prime mover in the educational system, is strongly presented; and the specific defects existing in the institution at the time, and for the supply of which funds were urgently needed, are pointed out, with such explanation as to make the urgency of the case obvious. The memorial produced an impression strongly favorable; and this impression was strengthened and enforced by an oral argument, addressed to the members of both houses, in the representatives' hall, by Prof. Barnard, at the request of the trustees, during the session of the legislature. While this memorial was pending, however, the board resolved to make a thorough investigation into the condition of the seminary fund; and a committee of the body was occupied for several days, in ascertaining what balance, under the existing laws, ought to be due to it, on the books of the treasury. In these labors they were assisted by Prof. Barnard, who was indefatigable in the zeal of his co-operation, and by whom the results of the investigation, exhibiting a large balance to the credit of the fund, were finally condensed into a succinct and satisfactory statement. This statement, having been reported to the governor, by the president of the board, was thought by him

to be of sufficient importance, to justify him in laying it before the legislature in a special message, which he accordingly did, in the month of February, 1856. The immediate consequence of all these efforts was the passage of a law, appropriating to the university $20,000 per annum, in addition to its existing income, for five years.

With the increased means thus secured, the board proceeded to make rapid and extensive improvements in the university, showing in the various measures, which they adopted for this purpose, great consideration to the recommendations of Prof. Barnard. Within less than three years, the time which has since elapsed, they have placed the university, in regard to its internal arrangements, to its scientific collections, and to its appliances generally for furnishing the ambitious student with the largest advantages for the acquisition of knowledge, on a level with the best institutions of its class in the United States.

In the summer of 1855, Prof. Barnard was selected by the president of the American Association for the Advancement of Education, Prof. A. D. Bache, to prepare a paper on the subject of the "Improvements Practicable in American Colleges," for presentation at the annual meeting of the association, in August, of that year. This paper, which was published among the proceedings of the association, and in the "*American Journal of Education*,"* received wide approval and commendation for the judiciousness of its suggestions, and was reviewed, with strong expressions of approval, in the "*Southern Quarterly Review*," in an article, understood to be from the pen of the accomplished editor, Dr. Thornwell.

In the summer of 1856, the presidency of the university fell vacant, by the resignation of Dr. Longstreet, who had filled it successfully for seven years; and Prof. Barnard was elected to succeed him. He entered upon his new office, under circumstances of peculiar delicacy; and it was anticipated, by all who were on the ground, that his administration would have, at the outset, to contend with difficulties of no ordinary magnitude. The anticipation was verified in the amplest manner. But, in spite of sectarian feeling, excited to its utmost pitch against him, by men who sought to bring the university under denominational influence; and of the unscrupulous and untiring assaults by a notorious and infamous pretender to science, who, after his ejection from a chair in the university, sought to gratify his malignity by venting the most atrocious slanders and libels upon the personal character of Dr. Barnard; and although the systems of discipline and instruction, which it was the purpose of the new president to introduce into the university, were misapprehended by some, and misrep-

* Vol. I., p. 174.

resented by others; his plans for the improvement and development of the university have begun to bear fruit; and many of those who, through the efforts of interested persons, were once strongly prejudiced against him, and his system of university education, are now among the warmest of his admirers and supporters.

At the close of the year 1856, President Barnard delivered a lecture to the graduating class of that year, on the subject of the *Relations which exist between the education of the University and that of Common Schools.* In this lecture, which was published at the request of the class, we have a condensed statement of views which it has been the practice of the author, for many years, to inculcate constantly upon those who have received instruction at his hands, in regard to the duties which, as members of society, they owe to the great cause of education. He exhorts them never to forget the claims of the institution in which they were themselves educated, and never to relax in effort for the elevation of the university to the highest level, whether in regard to intellectual character, or to its material means of usefulness; but to remember, above all, that this usefulness is not limited to the direct agency of the institution, in imparting knowledge to the comparatively small number who resort to it, to obtain personal instruction within its walls; but is felt far more widely, and to far more beneficial purpose, through its indirect action upon the minds of the whole people; by setting in motion, and keeping in efficient operation, a system of universal education, for which it supplies the stimulus and furnishes the laboring men. He therefore earnestly desires them, while they vigorously persevere in their active support of the higher education, in the university of their native state especially, yet, by all means, to rest their support on the broad principles of universal philanthropy; and to sustain the university, because, in so doing, they contribute, more efficiently than they can do in any other way, to the education of the whole people.

The second year of President Barnard's administration, recently closed, has been one of remarkable success. His power of controlling young men has been exemplified in the good order which has prevailed, throughout the session, among the students of the university—a degree of order never previously existing there; while the grade of scholarship has also been materially elevated and improved. These results, achieved in so short a time, and in the face of so many adverse circumstances, are justly regarded by his friends, and by the literary public, as demonstrations of his peculiar fitness for the discharge of the administrative duties pertaining to his position.

During this year, President Barnard brought distinctly before the

trustees of the university, and the public, a plan which he had long cherished in his own mind, to elevate the university, in the grade of its teaching and in the character of its aims, to a level correspondent to the assumption of its name; to put it, in brief, in the way to become, just as rapidly as the educational wants of the country shall demand, an university in the European sense of the term. This plan he unfolded in a printed letter, addressed to the board of trustees, and extending to more than one hundred octavo pages.

A large edition of the letter was speedily exhausted by the calls made for it from every portion of the state, and the board of trustees, at their meeting in July last, were so impressed with the importance of the views presented in the letter, that they ordered the printing of another and larger edition, by the following resolutions:—

Whereas, In the opinion of the board of trustees, the recommendations contained in the printed letter of President Barnard, submitted at the present meeting of the board, as to changes to be made in the course of instruction in the university, the general views of which are approved, deserve a deliberate examination; therefore, be it

Resolved, That a committee of five be appointed to confer with the president, and with him to devise a plan for carrying into effect the suggestions contained in his letter; and report to the next annual meeting of this board, the course of study and organization of the several departments, best calculated to secure the object therein indicated.

Whereas, In the opinion of this board, the letter recently addressed to the board, through the press, by President Barnard, contains matter which ought to be universally diffused among the friends of education, and especially among the people of Mississippi; be it

Resolved, That *one thousand* copies of said letter be printed for the use of the board, and for general distribution.

The letter has attracted much attention at the hands of distinguished gentlemen throughout the country, who are themselves engaged in the work of education, and their numerous commendatory letters, addressed to its author, afford an ample and gratifying testimony in corroboration of the soundness of his views. A committee of the board of trustees has been charged with the duty of investigating and reporting upon the proposed changes advocated in the letter.

President Barnard has, all his life, possessed a great proclivity to mechanical invention. In his boyhood, he was constantly engaged in the construction of some species of mechanical contrivance, and the propensity has never disappeared. At the meeting of the American Association for the Advancement of Science, held in Baltimore, in April, 1858, he presented a description of an electric clock, constructed, according to his designs, by Ritchie, of Boston. In this very beautiful piece of mechanism, the pendulum receives its impulse from two small weights, alternately raised by magnetic power, while the pendulum itself is entirely free. So long ago as the year 1848, he

invented a printing telegraph, capable of performing with greater rapidity than any in use; each letter requiring, for its production, but a single electric impulse, instead of such a succession as is necessary in the instruments which allow all the intervening letters to escape, one by one, before that which is desired can be reached. The instrument, however, required the use of the relay magnet and local battery, which were covered by Morse's patent; and it has never, therefore, been brought into use.

In the year 1854, President Barnard was admitted to deacon's orders in the ministry of the Protestant Episcopal church, by the Rt. Rev. Bishop Cobbs, of Alabama; and, in 1855, he was ordained a presbyter in the same church, by Rt. Rev. Bishop Green, of Mississippi. On his removal to Oxford, the parish in that village naturally fell under his charge, and he has continued to hold the rectorship up to this time—preaching, ordinarily, on two Sundays in each month. How he finds the time, in the midst of so many and such engrossing avocations, for the preparation of his pulpit discourses, is a standing surprise to all who are aware of the number and extent of his various employments. As a composition, each of his sermons seems to have been as elaborately finished, as though the toil of weeks had been bestowed upon it; and yet, it is known that his sermons are actually prepared in the course of a few brief hours, during which he is often liable to interruption. His sermons display, also, a range of theological reading, whose breadth might well excite the astonishment of those who know how recently he has taken holy orders. Indeed, to listen to him in the pulpit, no one would suppose him to be a comparatively unpracticed clergyman; and all who can appreciate sincere and glowing piety, set forth and advanced with rare felicity of style, clearness of statement, force of logic, and poetic beauty of illustration, must regret that talents like his have not been exclusively devoted to the church.

It has been said of him, that the most remarkable characteristic of his mind, is his versatility. In all the various walks of letters and science which he has at different times pursued, he seems equally at home. He has evidently been "doing one thing at a time," during all his life; and has made it a rule to exhaust every subject of investigation, before he laid it aside. Whatever he has once mastered, he has retained with such a freshness of recollection that, seemingly without mental effort, he passes from subject to subject, without embarrassment, or confusion of ideas, and calmly draws forth from his mental treasures "things new and old," as the exigences of the moment may require.

The "*Letter*" which President Barnard addressed to the board of trustees of the University of Mississippi, in 1858, is so full of suggestions of the highest practical importance to the efficiency and fuller development of our American collegiate and university system, that we must enrich our pages with a few extracts.

In this, as in his former publications on the subject, the writer claims that the expansion of the range of studies, without extending the time in which these studies are to be pursued, has impaired the efficiency of the system, in its original and legitimate aim—the discipline and training of the intellectual powers—without giving to the students a thorough mastery of any one of the many new subjects introduced. This evil he attributes, not to the inefficiency of the professors, or to their defective methods of instruction, but to the system itself.

The evil has been the growth of years. It has accumulated by degrees almost imperceptible. Each successive addition has probably seemed inconsiderable to those who made it, but the united sum has become intolerable. Could it, in the nature of things, have been possible that a proposition should at any one time have been made for a sudden change from the system, as it existed a century ago, to the system of to-day, it is inconceivable that it should have been entertained by enlightened educators for a moment.

To relieve the course of under-graduate study in our colleges of some part of its excessive burthen, and at the same time to meet the demands of the age for instruction in the studies which have been introduced, President Barnard proposes to divide the studies into distinct and separate courses—a sub-graduate and a post-graduate department.

The sub-graduate course may be defined by the very simple process of excluding from the curriculum of study, as it stands at present, all those branches of science which are confessedly modern additions, and, along with these, the modern languages. This course will, therefore, as reconstructed, embrace the English, Latin, and Greek languages, all the elementary branches of the pure mathematics, the mechanical branches of natural philosophy, logic, rhetoric, the principles of criticism, moral and mental philosophy, composition, and elocution. These several branches of study are to be pursued to something like the extent, and with something like the thoroughness, contemplated in the earlier period of the history of our collegiate instruction. To these it may not be thought improper to add, during the concluding year, succinct expository courses in chemistry and the subjects of natural philosophy, not strictly mechanical; these topics being taught avowedly in outline only, and not as matters to be embraced in the examination for the Bachelor's degree.

To the post-graduate department, may be turned over those branches of science and letters which are excluded from the former, and which are confessedly, at present, but imperfectly taught; and the number of these may, from time to time, be increased, by adding new ones, as the wants of the public and the growing resources of the university may demand or justify. Thus it *may* immediately include astronomy, geology, mineralogy, chemistry, natural philosophy, meteorology, civil engineering, the higher branches of the pure mathematics, Greek and Roman letters, the modern languages and their literature, political economy, international law, constitutional law, and the history of philosophy; but it probably *will* include, at first, only such of this list as are most practical in their nature. As, in creating this department, the design should be, from the beginning, to build

up here ultimately a university in the largest acceptation of that term, it is to be expected that, in the progress of years, schools of agriculture, of natural history, of medical science, of civil and political history, &c., &c.

The post-graduate department is to be open to all who may wish to go thoroughly to the bottom of any subject which the university proposes to teach, and for which he has prepared himself in school, or by private study; but the master's degree is not to be conferred upon any one who has not graduated as Bachelor of Arts, in this or some other college. When students of mature minds resort, of their own option, to a school of higher learning, like that contemplated, it is presumed they will be in earnest in the pursuit of knowledge.

The above assumption can not safely be made of the body of the under-graduates of our colleges. Nor is it difficult to find reasons for a fact of so general observation. One of these is, doubtless, the immaturity of the youthful student himself; in consequence of which, he is yet to learn both the importance of mental culture, and the value of positive knowledge. Another is presented in the circumstance that the under-graduate student is not always, perhaps not usually, a member of an institution of learning, entirely of his own voluntary choice; but that he has become such, in compliance with the wishes of his parents and friends; often with no other feeling on his own part than a desire to make his college life pass away as agreeably as circumstances will allow; a desire which does not always prompt him to seek for enjoyment by the most rational means.

In the higher department, or post-graduate course, of the university, President Barnard proposes to employ the plan of daily recitation only to a limited extent, and to resort mainly to oral exposition on the part of the teacher.

According to Sir William Hamilton, all instruction was originally given, in the universities of England, as it continues to be in the continental universities, by lecture. The colleges and halls, which now monopolize the principal work of teaching in those venerable institutions, were erected to provide for the physical wants of the students, and to secure a vigilant supervision over their morals. The officers, called tutors, employed by the colleges for the latter purpose, gradually took upon themselves the character of instructors, by exacting from the youth under their charge, a repetition of what they had learned in the public lecture-halls. To this kind of recitation, they subsequently added recitation from books. The evident design of the exercise, in its origin, was that in which we find its chief utility at present—to insure the attention of the pupil to the subject which he is required to know. The distinctive name given by the French, to the officer whose duty it is merely to hear recitations, makes it sufficiently evident what idea is associated with the exercise by them. This name—*répétiteur*—suggests to the mind the bare repetition of a task, as that which it is the business of the officer to secure. * * *

All that Melancthon has said, all that Hamilton has said, all that any panegyrist of the system of daily examination, as a means of instruction, has said, in regard to the incidental advantages growing out of the method, is admitted without any hesitation. It stimulates emulation, it cultivates self-possession, it encourages or enforces precision of speech, it abates conceit, it convinces of deficiency. But all these resultant benefits presume the immaturity of the learner; and most of them presume, furthermore, that an unceasing constraint is necessary to compel him to profit by the instructions he receives. * * *

It will be conceded that, considered as an instructive, and not as a coercive method, the system of daily examination is attended with some incidental advantages, besides those which have just been enumerated. It is a possibility that a student, who has failed to comprehend some point embraced in the text of his lesson, may be enlightened, by listening to the performance of a fellow-student. It

is also a possibility, or rather a fact of frequent occurrence, that the imperfect performance of an individual scholar, may indicate to the instructor the deficiencies of that individual, and so elicit explanatory comments or illustrations. It is further true, that the instructor may volunteer explanations and elucidations of points of difficulty, even though occasion may not arise to force their introduction.

An acute instructor, moreover, by the ingenious selection of interrogatories, will bring out the weak points of a pupil, as a lawyer does those of a witness; or will bring into prominent relief the points of the subjects under consideration, which are of highest importance. But, beyond this, it is certainly true, that it is only in so far as, for whatever reason, the instructor does actually superadd his own teachings to the text of the lesson, that any talents or attainments, which may belong to him personally, can be of any sort of use to his pupils. For all the purposes of *mere* recitation, any man, who is capable of understanding what the pupil says, and of reading the book or books from which he has learned it, so as to compare the performance with the text, is as good and as capable a presiding officer and examiner in a class-room, as any other. The teacher, therefore, who meets his classes for no purpose at any time but to "hear their recitations," is not really a teacher, except in so far as he ingrafts upon this exercise the expository feature which is the distinguishing characteristic of the plan of instruction by lecture. To do this, however, to any extent, in the recitation-room, without seriously interfering with the specific design for which the exercise of recitation was primarily instituted, is proved by experience to be impracticable. Class recitations have, at best, the great disadvantage, that either but few out of a large number can perform at all, or that each one who performs shall be under examination for so brief a space of time as nearly to defeat every useful object, and to render the exercise little better than an idle form.

Another serious vice of the system, is its pernicious influence on the teacher. To whatever degree it may be coercive to the student, it is not in the least so to him. It stimulates him to no self-improvement, and awakens in him no ambition for higher attainments, on the one hand; and it affords him no adequate field for the display of genius, or for the turning of accumulated knowledge to use, on the other. Instead of this, the opportunity which it offers him of sinking, without observation, into a mere cipher, is a real, a perpetual, and a most insidious temptation to sloth. The difficulty of employing, in the recitation room, the expository mode of instruction, without overreaching too far upon the exercise proper to the hour, is enough, in itself, to repress in the teacher the teaching spirit, and to cause him constantly to tend to the level of the mere *répétiteur*. How dangerously is this tendency increased, by the fact that its downward direction coincides precisely with that in which the native love of ease is perpetually dragging all mankind! For this great evil, there is but one antagonistic influence, which can be of any avail: it is that of a living, fervent, zeal in his work, existing in the instructor himself; a zeal, not in the work of conducting recitations, as the remark might seem to imply, but which would be ridiculous—a zeal, rather, in the higher and nobler work of training immortal minds to vigor, and capacitating them for usefulness. The college officer, therefore, of the present day, whose interest in his profession is bounded by the fact, certainly uninspiring, however important to himself, that it secures to him the means of living, is in imminent danger of lapsing into a mere automaton.

The advantages of oral teaching are thus set forth:—

According to the plan, if the teacher possesses any knowledge on the subject of study, which is not contained in the books of the course, or not easily accessible to the student, or if the sources from which such knowledge may be obtained are above the present level of the student's capacity, this knowledge will be brought out and made available. And if he possesses any power of clear analysis, or of luminous illustration; if he possesses, as he ought, in order to occupy fitly a position of this high responsibility, that mastery over his theme which belongs to the man who has ceased to think of the truth which he teaches as of a something found in books, and of which all that he knows is knowledge gathered at second-hand; but who has independently interrogated the sources of information himself, and stands in immediate contact with nature and with thought, feeling no need of an interpreter—if this is his own intellectual character, this the

degree of his intellectual cultivation, and this the comprehensive scope of his acquired resources—then his teachings will carry with them, to the minds of his hearers, a fullness of satisfaction, and fasten themselves there with a permanency of impression, such as no amount of perusal of mere lifeless text-books, written down to the level of their immediate attainments, no matter how earnestly attentive, or how conscientiously faithful the perusal may be, can ever produce.

Not that from such a system of instruction books are to be discarded. By no means. Not only will the necessity of books continue to be as absolutely imperative, as under any system whatever of recitation from a text; but the multiplication of books will be an inevitable consequence. For, while the instructor will aim to expound all that relates to theory or doctrine, he will not embarrass his classroom with the lumber of innumerable applications, which, however useful they may be, are the proper labor of the student himself, in his solitary study; neither, in regard to simple matters of plain fact, of which a multitude are strewn along the path of every walk in science, will he consider it expedient to occupy time in stating, in minute detail, what can be found in every book, and what needs but to be read once to be understood. For their necessary enlightenment in matters such as these, he will refer his pupils to certain selected authors, of which he will designate the portions which require their attention, with as much regularity as if they were to be subjected to examination upon the same passages. But he will not always confine himself to one author, nor always give the same author preference; for his business is to teach a subject, and not a book; and books, therefore, are not his guides, but his helps. Nor will the student find it quite a practicable thing to disregard the recommendations thus made, or to neglect the perusal, or rather severe study, of the books designated; for he will shortly discover that this study is indispensable to his understanding and properly profiting by the instructions of his own immediate teacher.

The two salient merits of the method of instruction here proposed, then, for the class of learners contemplated, are, first, that it both permits and compels the teacher to *be* a teacher, and neither constrains nor allows him to sink into inactivity, nor to content himself with presiding in empty state over an exercise to which he is conscious of contributing nothing valuable; and, secondly, that it makes *knowledge itself*, and not the substance of any *treatise* upon knowledge, not any *artificial form* into which knowledge has been thrown, the immediate subject of teaching.

To make the plan of oral teaching more effective, President Barnard proposes to introduce another feature, somewhat peculiar:—

This is to afford to the members of the class, pursuing their studies in any school, the opportunity, after the instructor shall have completed the exposition of the topic of the day, to bring up for re-examination points which still remain to them obscure, or to ask further information in regard to matters which may not have been fully explained. This is, in fact, to inaugurate a species of recitation in which the student and teacher reverse the positions usual in this exercise. The student questions; the teacher replies. The student should even be permitted, if he pleases, in cases which admit of argument, to take issue with his instructor, and to present his reasons for his opinions. Discussion will be advantageous to both parties, and will keep more actively alive the interest felt by the class in the subject of study.

But the larger portion of the "*Letter*" is devoted to an elaborate effort to induce the trustees, by inaugurating the project of a post-graduate department, to take a first decided step in the direction of a higher development of the educational system of the state.

The character of every school, from the highest to the lowest, within our borders, is to be determined ultimately by the respectability or the inferiority of this. Though it is true that but a fraction of the people will receive their personal instruction within the university halls, yet all, without exception, will be partakers of the benefits of which the university is to be the fountain-head and the central source. If the institution does not immediately teach the entire people, it will

teach their teachers; or, what is equivalent to this, it will force every instructor, whom it does not itself instruct, to come up to the standard it prescribes, on penalty of being else driven from the educational field. * * *

But what *is* the university of to-day? What, but a training school for immature minds—impaired, indeed, in its usefulness for this purpose, by the very attempt to accomplish, along with it, other and entirely incompatible objects? If the people suppose that this is a place to make practical men, or learned men, or profoundly scientific men—if they suppose that it is within the reach of possibility for the university, under the existing system, to turn out accomplished engineers, or expert chemists, or proficient astronomers, or profound philosophers, or even finished scholars—we know very well that they are deceived. Not that this institution falls any further short of accomplishing these ends, or fails any more signally to meet this popular impression, than other American colleges; but that the power to do these things seems, by force of a general hallucination, to be attributed to colleges as a class, while, in point of fact, it does not actually exist in any one of the whole number. * * *

The existence of the want of institutions of a higher than merely collegiate grade, as a reality, is made evident by the earnest and urgent demand, spoken of earlier in this communication, which has been, for the last thirty or forty years, so extensively heard, for something or other which the existing educational system does not supply. This demand, so far as it has proceeded from scholars and men of science, has taken the specific form of a demand for universities called by that name; because scholars and men of science have been able to perceive distinctly, that the university was the precise thing needed to satisfy the want. But when it has come from the people—and from the people it has come very steadily, for at least a quarter of a century—it has been, not for the university by name, but for new schools of some vaguely-conceived description; for colleges to be broken up and destroyed in all that regards the province of their past usefulness, and built up anew upon some visionary plan, and according to some impracticable theory; for schools of science, as applied to the arts of construction, of agriculture, of manufactures, and every thing useful to mankind, but chiefly things useful according to that literal sense which confounds utility with increase of wealth; for schools, in short, which should do what the collegiate schools do not do, and what we know that it is not necessary or even proper that they should do—prepare men, so far as schools can prepare them, to take directly hold of the real business of life. No one is ignorant that this demand has existed for a period at least as long as asserted; that, at times, it has been vociferous and violent; or that, not content with insisting on the creation of new schools, to accomplish the ends desired, it has turned, occasionally, almost in a spirit of vindictive destructiveness, upon the old, because they did not accomplish those same ends.

These demands, the undersigned ventures to assert, are evidence of the want of higher universities. Not because they ask for the university; not because their authors, if the university were proposed to them as a remedy, would be likely to accept it; but because the present inconvenience, which is so sensibly felt, is one which the university would remove, though those who feel it do not perceive how. And why not? Because first, looking at universities, as they have been in past centuries, as the repositories of literary lore, as the resorts of scholars dealing with abstractions, as the burrowing-places of book-worms, eating out the hearts of the black-letter volumes of the sixteenth century, or of the manuscripts of the sixth, as the unchallenged domain of grammarians and lexicographers, of commentators upon Aristotle and Longinus, ingenious speculators upon the mysteries of the digamma, and indefatigable elaborators of ethical and logical nicetics, they picture them, in their imaginations, even to this hour, as solemn and shadowy retreats, still smelling of the dust and mold of antiquity, where philology, linguistic philosophy, and the sublimer metaphysics brood, like the pensive owl in Gray's churchyard turret, with none to

"Molest their ancient solitary reign."

But this conception is entirely erroneous. The university, in the sense in which the name is now generally received, no matter what may have been its original acceptation, is *Universitas Scientiarum;* it is, in other words, an institution in which the highest learning of its day is taught in every walk of human knowledge.

When classic learning, philosophy, and logic, were subjects of the highest interest in human estimation, it is not surprising that the character of university teaching should have been principally determined by them. But, inasmuch as, at the present day, physical science has attained a position of actual dignity, immeasurably higher than it then enjoyed, and as its useful applications have become almost endlessly more numerous and varied, the university of to-day would fail to be what its name imports, if it did not assign a corresponding prominence to these subjects—subjects, be it observed, which happen to be the same for which the agitators we have been speaking of demand that a special provision of special schools shall be made. * * *

There is, however, a second class of agitators, who, while admitting the justice of the foregoing representation, are not disposed to accept the university as a remedy for the inconvenience they suffer, because, while it gives them all that they demand, it gives them at the same time much more—much for which they do not ask, and for which they do not care. They fear so great a project, as the creation of an institution, professing, and really preparing itself, to teach every thing embraced in the entire circle of human knowledge. They fear that, in attempting this, they shall attempt what is beyond their means; and that, by grasping too much, they shall loose every thing. It is believed that all this class of persons, if they rightfully interpret our views, will find that we are entirely in accordance with them, and they with us. For no such visionary scheme is entertained by any one connected with this institution, as that of creating here, in a day, a university, complete in all the many-faced aspects of a repository of universal truth, and a dispenser of universal knowledge. What is aimed at, what is recommended, is only, as already stated, to take a first step in the right direction—a step which shall, indeed, ultimately conduct to the fulfillment of the great idea, but which shall not be itself the fulfillment—a step which will mark only the beginning of a progress, in which, advancing only as the growing intelligence and increasing wants of the people of the state shall urge it, the University of Mississippi may, to the eyes of a future generation, at length present the lustrous spectacle which the comprehensive idea of a true university implies.

There is still another class, whose views on the subject under consideration can not be overlooked—a class possibly the most numerous of all those who concern themselves about it; or, if not the most numerous, at any rate, by far the most impracticable. Those are here indicated who deny the utility of high learning altogether. They are, of course, utilitarians in the technical sense of that word. Let any thing tend to promote the bodily comfort of the race—let it furnish man with food, or keep him warm, or put a barrier between him and the weather—and that is a useful thing. By consequence, therefore, science does, occasionally, in some of its practical results, command their partial consideration; but, for science or learning as a whole, a matter between which and the increase of wealth no connection in the relation of cause and effect is to their minds obvious, they have no respect whatever. To elevate the intellectual man in the scale of being, to enable him to form larger and juster views than his unaided senses or his individual, casual, and unsystematic observation has qualified him to conceive, of the power and wisdom and goodness of the great Architect of the universe, to introduce him to a world of enjoyments growing out of the exercise of the godlike intellect upon subjects of beauty, and sublimity, and deep-seated and with delightfully difficult effort laboriously unraveled truth—enjoyments such as doubtless occupy cherubic intelligences, in their rapt contemplation of the wonderful works of God—all this the mere utilitarian philosopher, ever like the man with the muckrake in Bunyan, looking downward, fails to comprehend and to appreciate; and all arguments addressed to him, founded upon the consideration, to which he is insensible, that knowledge is valuable for its own sake, are wholly thrown away.
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Is, then, scientific knowledge useful? Few objectors will take the broad ground of denying all utility to science; or of denying utility to all sciences. Few will hesitate to admit that every science furnishes some facts that are useful. Even the patient and diligent collector of bugs, and butterflies, and caterpillars, though looked down upon in a general way by the utilitarian with an amusingly sublime loftiness of contemptuous regard, if he but intimate a belief that he is upon the sure trace of a method of exterminating the insect scourges of the cotton-field, is

listened to with respectful, nay, with greedy ears, and is elevated at once to a position of comparative dignity. No scoffer at science, therefore, ever scoffs at the science, or at the facts of science, which he understands; understands, that is to say, not as simple, isolated facts, a thing which is generally easy—but understands in all their bearings, and relations, and far-reaching affiliations with other facts with which they have no obvious or visible connection—a thing which is often not easy at all. * * *

When Priestly, in 1774, turning the focus of his burning lens upon the substance known in the shops of the apothecaries under the name of red precipitate, detached bubbles of a gas identical with that which, in the atmosphere, supports life, who could presume that, in thus freeing one of the metals from its companion element, he had detected the composition of many of the most useful ores, and furnished a hint which was yet to reduce all metallurgic art, from the smelting of iron to the reduction of aluminium, under the dominion of chemical science, and to the severe rule of an intelligent and a productive economy? When, in the same year, Scheele, by operating on the acid of sea-salt, made first visible to human eyes that colored gas whose suffocating odor is now so well known to all the world, who could foresee the astonishing revolution which a discovery, then interesting only for its curious beauty, was destined to introduce into the manufacture of paper, of linen textures, and of a vast multitude of other objects, of daily and hourly use? Or what imagination could have been extravagant enough, or fantastic enough, in the exercise of its inventive power, to anticipate that a substance, for the moment not merely useless but seemingly noxious, would, in the nineteenth century, accomplish what, without it, no instrumentality known to science or art could have accomplished—find aliment for the rapacious maw of a letter-press, whose insatiable demands, already grown vast beyond all conception, grow yet with each succeeding year? When the chemists of the last century observed the discoloration and degradation which certain metallic salts undergo in the sunlight, who could possibly read, in a circumstance so apparently trivial, though occasionally troublesome, the intimation that the sun himself was about to place in the hands of Niepce, and Daguerre, and Talbot, a pencil, whose magical powers of delineation should cause the highest achievements of human pictorial art to seem poor and rude in the comparison? When Malus, in 1810, watching the glare of the sun's rays, reflected from the windows of the Luxembourg to his own, noticed for the first time the curious phenomena attendant on that peculiar condition of light which has since been known by the name of polarization, what prescience could have connected a fact so totally without any perceptible utility, with the manufacture of sugar in France; or have anticipated that an instrument, founded in principle on this very property, would, forty years later, effect an annual saving to the French people to the extent of hundreds of thousands of francs? When Œrsted, in 1819, observed the disturbance of the magnetic needle by the influence of a neighboring galvanic current, how wild and visionary would not that man have been pronounced to be, who should have professed to read, in an indication so slight, the grand truth that science had, that day, stretched out the scepter of her authority over a winged messenger, whose fleetness should make a laggard even of Oberon's familiar sprite, and render the velocity which could "put a girdle round the earth in forty minutes" tardy and unsatisfying?

Questions of this kind, suggested by the history of scientific progress, might be multiplied to fill a volume. Indeed, it has almost come to be a dogma in science, that there is no new truth whatever, no matter how wide a space may seem, in the hour of its discovery, to divide it from any connection with the material interests of man, which carries not within it the latent seeds of a utility, which further discovery, in the same field, will reveal and cause to germinate.

We would gladly follow President Barnard through his glowing argument, in behalf of higher learning but we must refer our readers to the "*Letter*" itself.