YALE 1828 REPORT OF THE FACULTY.

Part I. [Excerpts]

Containing a summary view of the plan of education in the college.

What then is the appropriate object of a college? It is not necessary here to determine what it is which, in every case, entitles an institution to the name of a college. But if we have not greatly misapprehended the design of the patrons and guardians of this college, its object is to lay the foundation of a superior education: and this is to be done, at a period of life when a substitute must be provided for parental superintendence. The ground work of a thorough education, must be broad, and deep, and solid. For a partial or superficial education, the support may be of looser materials, and more hastily laid.

The two great points to be gained in intellectual culture, are the discipline and the furniture of the mind; expanding its powers, and storing it with knowledge. The former of these is, perhaps, the more important of the two. A commanding object, therefore, in a collegiate course, should be, to call into daily and vigorous exercise the faculties of the student. Those branches of study should be prescribed, and those modes of instruction adopted, which are best calculated to teach the art of fixing the attention, directing the train of thought, analyzing a subject proposed for investigation; following, with accurate discrimination, the course of argument; balancing nicely the evidence presented to the judgment; awakening, elevating, and controlling the imagination; arranging, with skill, the treasures which memory gathers; rousing and guiding the powers of genius. All this is not to be effected by a light and hasty course of study; by reading a few books, hearing a few lectures, and spending some months at a literary institution. The habits of thinking are to be formed, by long continued and close application. The mines of science must be penetrated far below the surface, before they will disclose their treasures. If a dexterous performance of the manual operations, in many of the mechanical arts, requires an apprenticeship, with diligent attention for years; much more does the training of the powers of the mind demand vigorous, and steady, and systematic effort.

In laying the foundation of a thorough education, it is necessary that all the important mental faculties be brought into exercise. It is not sufficient that one or two be cultivated, while others are neglected. A costly edifice ought not to be left to rest upon a single pillar. When certain mental endowments receive a much higher culture than others, there is a distortion in the intellectual character. The mind never attains its full perfection, unless its various powers are so trained as to give them the fair proportions which nature designed. If the student exercises his reasoning powers only, he will be deficient in imagination and taste, in fervid and impressive eloquence. If he confines his attention to demonstrative evidence, he will be unfitted to decide correctly, in cases of probability. If he relies principally on his memory, his powers of invention will be impaired by disuse. In the course of instruction in this college, it has been an object to maintain such a proportion between the different branches of literature and science, as to form in the student a proper balance of character. From the pure mathematics, he learns the art of demonstrative reasoning. In attending to the physical sciences, he becomes familiar with facts, with the process of induction, and the varieties of probable evidence. In ancient literature, he finds some of the most finished models of taste. By English reading, he learns the powers of the language in which he is to speak and write. By logic and mental philosophy, he is taught the art of thinking; by rhetoric and oratory, the art of speaking. By frequent exercise on written composition, he acquires copiousness and accuracy of expression. By extemporaneous discussion, he becomes prompt, and fluent, and animated. It
is a point of high importance, that eloquence and solid learning should go together; that he who has accumulated the richest treasures of thought, should possess the highest powers of oratory. To what purpose has a man become deeply learned, if he has no faculty of communicating his knowledge? And of what use is a display of rhetorical elegance, from one who knows little or nothing which is worth communicating? Est enim scientia comprehendenda rerum plurimarum, sine qua verborum volubilitas inanis atque irridenda est. Cic. [Without knowledge of many things, copiousness of words is meaningless and even absurd] Our course, therefore, aims at a union of science with literature; of solid attainment with skill in the art of persuasion.

No one feature in a system of intellectual education, is of greater moment than such an arrangement of duties and motives, as will most effectually throw the student upon the resources of his own mind. Without this, the whole apparatus of libraries, and instruments, and specimens, and lectures, and teachers, will be insufficient to secure distinguished excellence. The scholar must form himself, by his own exertions. The advantages furnished by a residence at a college, can do little more than stimulate and aid his personal efforts. The inventive powers are especially to be called into vigorous exercise. However abundant may be the acquisitions of the student, if he has no talent at forming new combinations of thought, he will be dull and inefficient. The sublimest efforts of genius consist in the creations of the imagination, the discoveries of the intellect, the conquests by which the dominions of science are extended. But the culture of the inventive faculties is not the only object of a liberal education. The most gifted understanding cannot greatly enlarge the amount of science to which the wisdom of ages has contributed. If it were possible for a youth to have his faculties in the highest state of cultivation, without any of the knowledge which is derived from others, he would be but poorly fitted for the business of life. To the discipline of the mind, therefore, is to be added instruction. The analytic method must be combined with the synthetic. Analysis is most efficacious in directing the powers of invention; but is far too slow in its progress to teach, within a moderate space of time, the circle of the sciences.

In our arrangements for the communication of knowledge, as well as in intellectual discipline, such branches are to be taught as will produce a proper symmetry and balance of character. We doubt whether the powers of the mind can be developed, in their fairest proportions, by studying languages alone, or mathematics alone, or natural or political science alone. As the bodily frame is brought to its highest perfection, not by one simple and uniform motion, but by a variety of exercises; so the mental faculties are expanded, and invigorated, and adapted to each other, by familiarity with different departments of science.

But why, it may be asked, should a student waste his time upon studies which have no immediate connection with his future profession? Will chemistry enable him to plead at the bar, or conic sections qualify him for preaching, or astronomy aid him in the practice of physic? Why should not his attention be confined to the subject which is to occupy the labors of his life? In answer to this, it may be observed, that there is no science which does not contribute its aid to professional skill. “Every thing throws light upon every thing.” The great object of a collegiate education, preparatory to the study of a profession, is to give that expansion and balance of the mental powers, those liberal and comprehensive views, and those fine proportions of character, which are not to be found in him whose ideas are always confined to
one particular channel. When a man has entered upon the practice of his profession, the energies of his mind must be given, principally, to its appropriate duties. But if his thoughts never range on other subjects, if he never looks abroad on the ample domains of literature and science, there will be a narrowness in his habits of thinking, a peculiarity of character, which will be sure to mark him as a man of limited views and attainments. Should he be distinguished in his profession, his ignorance on other subjects, and the defects of his education, will be the more exposed to public observation. On the other hand, he who is not only eminent in professional life, but has also a mind richly stored with general knowledge, has an elevation and dignity of character, which gives him a commanding influence in society, and a widely extended sphere of usefulness. His situation enables him to diffuse the light of science among all classes of the community. Is a man to have no other object, than to obtain a living by professional pursuits? Has he not duties to perform to his family, to his fellow citizens, to his country; duties which require various and extensive intellectual furniture?

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We are far from believing that theory alone, should be taught in a college. It cannot be effectually taught, except in connection with practical illustrations. These are necessary in exciting an interest in theoretical instructions; and especially important in showing the application of principles. It is our aim therefore, while engaged in scientific investigations, to blend with them, as far as possible, practical illustrations and experiments. Of what use are all the sublime discoveries which have immortalized the names of Newton, Archimedes, and others; if the principles which they have unfolded, are never to be taught to those who can reduce them to practice? Why do we bestow such exalted encomiums on inventive genius, if the results of original investigations, are to be confined to a few scientific men, and not diffused among those who are engaged in the active duties of life? To bring down the principles of science to their practical application by the laboring classes, is the office of men of superior education. It is the separation of theory and practice, which has brought reproach upon both. Their union alone can elevate them to their true dignity and value. The man of science is often disposed to assume an air of superiority, when he looks upon the narrow and partial views of the mere artisan. The latter in return laughs at the practical blunders of the former. The defects in the education of both classes would be remedied, by giving them a knowledge of scientific principles, preparatory to practice.

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It is sometimes thought that a student ought not to be urged to the study of that for which he has no taste or capacity. But how is he to know, whether he has a taste or capacity for a science, before he has even entered upon its elementary truths? If he is really destitute of talent sufficient for these common departments of education, he is destined for some narrow sphere of action. But we are well persuaded, that our students are not so deficient in intellectual powers, as they sometimes profess to be; though they are easily made to believe, that they have no capacity for the study of that which they are told is almost wholly useless.

When a class have become familiar with the common elements of the several sciences, then is the proper time for them to divide off to their favorite studies. They can then make their choice from actual trial. This is now done here, to some extent, in our Junior year. The division might be commenced at an
earlier period, and extended farther, provided the qualifications for admission into the college, were brought to a higher standard.

If the view which we have thus far taken of the subject is correct, it will be seen, that the object of the system of instruction at this college, is not to give a *partial* education, consisting of a few branches only; nor, on the other hand, to give a *superficial* education, containing a smattering of almost every thing; nor to *finish* the details of either a professional or practical education; but to *commence* a *thorough* course, and to carry it as far as the time of residence here will allow. It is intended to occupy, to the best advantage, the four years immediately preceding the study of a profession, or of the operations which are peculiar to the higher mercantile, manufacturing, or agricultural establishments.

... Young men intended for active employments ought not to be excluded from the colleges, merely on the ground that the course of study is not specially adapted to their pursuits. This principle would exclude those also who are intended for the professions. In either case, the object of the undergraduate course, is not to finish a preparation for business, but to impart that various and general knowledge, which will improve, and elevate, and adorn any occupation. Can merchants, manufacturers, and agriculturists, derive no benefit from high intellectual culture? They are the very classes which, from their situation and business, have the best opportunities for reducing the principles of science to their practical applications. The large estates which the tide of prosperity in our country is so rapidly accumulating, will fall mostly into their hands. Is it not desirable that they should be men of superior education, of large and liberal views, of those solid and elegant attainments, which will raise them to a higher distinction, than the mere possession of property; which will not allow them to hoard their treasures, or waste them in senseless extravagance; which will enable them to adorn society by their learning, to move in the more intelligent circles with dignity, and to make such an application of their wealth, as will be most honorable to themselves, and most beneficial to their country?

The active, enterprising character of our population, renders it highly important, that this bustle and energy should be directed by sound intelligence, the result of deep thought and early discipline. The greater the impulse to action, the greater is the need of wise and skilful guidance. When nearly all the ship’s crew are aloft, setting the topsails, and catching the breezes, it is necessary there should be a steady hand at helm. Light and moderate learning is but poorly fitted to direct the energies of a nation, so widely extended, so intelligent, so powerful in resources, so rapidly advancing in population, strength, and opulence. Where a free government gives full liberty to the human intellect to expand and operate, education should be proportionately liberal and ample. When even our mountains, and rivers, and lakes, are upon a scale which seems to denote, that we are destined to be a great and mighty nation, shall our literature be feeble, and scanty, and superficial?