MATHEMATICS AND SCIENCE

These Adjuncts to the Higher Education Ably Discussed Before Bethel Literary.

Prof. Richard Foster Sets Forth Methods of Scientific Instruction and the Real Aim—Living a Complete Life—The Essential Items Enumerated—The Whole Truth Leads the Master of Science Toward God, Never Away from Him—Investigation in Proper Spirit the Best Safeguard.

The recent symposium on the "Higher Education," presented under the auspices of Bethel Literary and Historical Association, attracted wide attention at the hands of the scholars and thinkers of this community, and proved to be a valuable contribution to the rich fund of knowledge that is being stored up by the nation's banner literary and scientific organization. Prof. Richards and his co workers deserve unstinted praise for keeping alive the inspiration that makes for a broader intellectuality for our people, and gives a keener zest to our struggle for the loftier ideals. The Colored American has already given the admirable production of Prof. Lightfoot on "The Function of Language," now at the instance and request of many readers, we publish a synopsis of the two other addresses delivered on this occasion by Prof. Robert B Warder, instructor in Physics and Chemistry at Howard University, and by Dr. Richard Foster, professor of Natural History at the same institution. They will be found interesting and instructive.

Continued from last week.]

Prof. Richard Foster speaking for the place of "Science" in higher education, spoke in part as follows:

There is no antagonism between the several subjects presented here tonight, but the heartiest co-operation and mutual interdependence is felt between the parts of a well rounded curriculum, and I wish to simply show the relative value of scientific instruction in any complete course of study for both secondary and higher education. It might be well to glance for a moment at the history of the leading theories of education—to see [illegible] have [illegible] d up [illegible] edu- [illegible] chief [illegible] s at- [illegible] nated [illegible] g the [illegible] f the [illegible] chief [illegible] ment [illegible] end of education [illegible] In some church schools, especially those of the Roman Catholic Church. In the middle ages it was often carried to ridiculous extremes, as for example, the discussion as to "How many angles can dance on the point of a cambric needle." This idea gave way about the time of the reformation to what might well be called the humanitarian idea in education. In this the good of man, his relations to each other and to God, and especially his mental and moral qualities were the dominating force in the schools. Such studies as logic, philosophy, history and ethics were the favorites in the curriculum. The methods were also different from the modern ways of imparting knowledge. Memory was the chief dependence, and human authority was supreme. They taught by words and abstract ideas. All that was necessary to make a college complete, by this standard was a man at one side of a table and a student at the other. About the middle of this century a new idea in education arose and rapidly supplanted the other theories—namely the thought that nature is the chief object of study for men, and is the key by which he is to unlock the mysteries of all we can know from the schools. In this theory, things take the place of abstractions. We teach by objects and expect each student to "prove all things." Human authority is at a minimum value, and more dependence is placed in observation, comparisons and deductions, than in memory. If I were to characterize these three theories each by a single word, I would say they were God for the first, man for the second and nature for the third. One might think that the standards are declining in modern times, but let me remind you that the logical method of learning about a higher, is by mastering the lower matters first. We cannot reach the top of Washington's monument by beginning at the apex—but must second step by step, and the only real way to learn about God and man is by a study of nature.

Now what is the real aim of an education. Is it to earn a living or make one a good citizen? Yes, but much more also. I would express it in a sentence by saying it is to prepare the young for complete living. It is not for decoration, for show or for culture yet so, but for living a complete life. Among the chief aims of a complete life, the following items will readily be seen to hold a large place: 1st, Self preservation. By this I would include all of the knowledge [illegible] holding one place bettering one's condition. It will apply to all ones relations to the family—to bread winning and to such knowledge of affairs as will aid one in preserving himself and his family in the fierce struggle for existence which is always going on. Now, the value of Science teaching in this part of complete living is paramount, for it teaches us to do as well as to know. Scientific methods have penetrated and changed the manner of imparting all knowledge as exemplified by Prof. Warder in his paper on Mathematics, in which he has just demonstrated that such abstruse ideas as proportion, or that algebraic equation can be reduced to object lessons by piles of blocks and swinging pendulums. It has changed the method of even Bible study, for now the real student of the Bible will go to Assyrian and Babylonian inscriptions and monuments and tombs for information and corrobaration of historical references found in the Bible. Also the study of language has been modified by the introduction of pictures and plaster casts of statuary, etc., to illustrate Greek and Latin literature. The erection and maintenance of the "Halls of the Ancients" in our own city is another illustration of the scientific spirit pervading the study of history and language.

This scientific or natural method is now fully recognized and used in the study of Medicine, in Law, in Commerce, in Journalism, in Farming, in Manufacturing and in all allied departments of human industry. The second division of complete living we will call the making of a Good Citizen. Does nature study help in this? It is easily seen that it does, for instead of the older methods of teaching, History, Political, Economy, and Civics, we now adopt the scientific method of learning about this subjects at first hand as much as possible. The citizen begins in the child and scientific child study belongs to my division of this symposium.

The only exhaustive study of Man that we have begins with him even earlier than childhood, even back in the physical and mental attributes of the lower animals, and must include a knowledge of heredity and environment. The climate, surroundings, food, clothing and houses have much to do with the difference in temperament and habits of thought between the dwellers in New England and New Orleans. No one can be a thoroughly good citizen until he knows and recognizes these scientific facts.

The last department of complete living which I will refer to is in the development of the moral faculties man. To make a student morally right is one of the chief ends of an education. What has science to do with this? It is often claimed and believed that scientific training will lead one away from God rather than toward Him. This is only true when one gets a mere superficial smattering of science, and imagines he knows it all. The greatest enemy of the whole truth is not error, but a half truth. Moral attributes are developed by a knowledge and love of truth. The province of science is to hold up a mirror to nature in which we can see the real face of nature reflected. When one becomes a true student of nature, and enters upon the study in the right scientific spirit, he will be led toward God, the author of nature, and toward moral rectitude which is harmony with nature. It is not necessary that one should know so much about nature so long as the spirit with which he enters upon his investigations is the right scientific spirit.

To develop the mind properly, the mental faculties should all receive their due attention. The chief mental faculties are, 1st, observation, 2nd, comparison, 3rd, deductions or reasoning, 4th, memory of what has been seen and thought. The older theories began with memory, where they should by all laws of logical reasoning have ended. The scientific method is to train these faculties in the order of their co-currence and development by nature in the child. The above is the proper order, and it goes without saying that there are no studies equal to nature work, to develop the powers of observation and comparison.

Joseph H. Douglass' Success.

It will be gratifying to the many Washington friends of Mr. Joseph H. Douglass, the country's favorite violinist, to learn that the brilliant young man has scored a pronounced triumph in the central West, where he is filling a number of engagements. He is a finely trained and a thoroughly conscientious performer and plays only the best grade of music. While his success is not surprising, it is none the less a source of pleasure to all who wish to see merit properly appreciated. All of Mr. Douglass' concerts have been largely attended, and his work has been highly praised by the most competent critics of both races. The Cincinnati Enquirer, the leading paper of the section of the country, said in its issue of November 26:

"The second one of a series of concerts to be given by Joseph Douglass, the famous violin virtuoso and grandson of the late Fred Douglass, took place last night at the Bethel Baptist Church, Walnut Hills, before a very interesting audience. The programme selected had two very interesting numbers, "The Gypsies" [illegible] violinist of rare ability, and at last night's entertainment he recieved encore after encore. He is an artist, and plays with skill. His tone is full and clear. He is the most finished violin performer of his race."

Any church or institution which secures the services of Mr. Douglass may deem itself fortunate, for he is, as this [illegible] will wield a large degree of influence. Senator Scott, being asked by the Philadelphia Press to tell why he succeeds in politics, said, among other things:

"I endeavor to carry into my political life—always to be loyal to my friends, never to make promises that I did not expect to be able to fulfill. I would rather disappoint a man at once by telling him that I could not do that which he might desire, than to keep him on the "anxious seat" for months when I knew that he would be disappointed in my ability to assist him to get what he might covet. In my opinion there is no royal road to success in politics except a straightforward, truthful and frank treatment of those who are associated with you."

The modern politician can read this with great benefit to himself, and the bed of the "office seeker" will be much sweeter, if Senator Scott's methods become general.

BOOKMAKERS AND PARAGRAPHERS

The Topeka Plaindealer pays a high tribute to the worth and work of the colored women of Washington and elsewhere in its current issue. Those sketched in detail or given honorable mention would fill a good sized book.

Bishop B. T. Tanner D. D., LL. D. has just brought from the press the first and second volumes of a learned work, entitled "Dispensations in the History of the Church," the two volumes numbering about seven hundred pages.

Editor T. Thomas Fortune, of the New York Age, has been spending a fortnight at Thompson, Saratoga springs, N. Y., partially to add a tenor to his rapidly improving health and partially for convenience in preparing some special literary work. Mr. Fortune is about the only man who has successfully solved the problem of how to work while he rests, and to rest while he works.

The Baltimore Afro American and The Ledger have consolidated, the managers of each combining their strength under a new assignment of duties. Fine idea! There should be fewer papers and better ones. There able journalists and business hustlers can do a city more good by combining and serving up one first-class sheet than by issuing three feeble "excuses" single-handed. Success to the Afro-American-Ledger over in our big suburb!

and general writer. His weekly letter to The New York Age is full of news and happy sayings, and is one of the most "taking" features of that excellent journal. Mr. Menard is one of the best trained journalists in the country, and it is no surprise that his productions are eagerly sought by the metropolitan press, both of the Negro and the white races. The colored press would find it to great advantage to patronize the Afro American Bureau of News and Opinion he has established here.

A neat and valuable little volume is "Life of Frederick Douglass" from the pen of one of Washington's most capable teachers, Miss L. E. Wilkes. The story of the career of the "Great Negro Commoner" is told in clear and simple language, and many interesting facts are brought out that are not found in any other book yet given to the public. It is suitable alike to teacher and pupil, and ought to be in the library of every student of Negro biography. Leading educators speak in complimentary terms of the work, and though only recently placed upon the market, the sale has been gratifyingly large. Price, 15 cents.

A Hint to Young People.

Baltimore has an historical society that could be imitated with profit by the young people throughout the land. The object of the club is to study Negro history and to familiarize its members and others of the race with the achievements of Negroes in every department of learning, art, science, the trades and professions. Its meetings are held weekly at the residences of its members. Biographical sketches of eminent Negroes and other papers of race interest are read and discussed. The following subject have already been treated. Rev. John Chavis, of North Carolina, Phyllis Wheatley, Paul Laurence Dunbar, Toussaint L'Ouverture, Dr. Alexander Crummell, James Campbell Matthews, John M. Langston, and T. Thomas Fortune.

Can He Vanquish This Foe?

President McKinley won name and fame for his loyalty to the flag and his bravery upon the battlefield. He is now doubtless confronted with an enemy more subtle and agile and strong than were the forces under Lee or Beauregard and their compatriots. It is an army made up of men with rather potent; men who are jealous of the colored man's onward progress, and who are determined to do all in their power to humiliate him and reach him he need hope for no chance in life in this country which a white man enjoys. If President McKinley bravely meets and vanquishes this foe he will write his name as high on the scroll of fame as did Charles Sumner, Thaddeus Stevens, Lucretia Mott, Frederick Douglass and other noble souls, who met the spirit of caste prejudice and caused it to quail beneath their trenchant lance.—Philadelphia Tribune.

Miss Mary F. Fletcher and Miss Mary Adkins spent Thanksgiving in Philadelphia, the guest of Miss Fletcher's parents.

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