millions annually in New York City. We cannot understand on what he bases that assertion. Take the two cities separately. The Illinois counties of Cook and Lake, that in which Chicago is situated and its neighbor on the north, lost 11,433 inhabitants by death in 1880. Of these, 6,230 were infants under five. If, of the remaining 5,203, 5,000 had died with average estates of $5,000, 175 with $100,000, and 28 with $1,000,000, — a most preposterous assumption, — then in those two counties Mr. Jacobson's tax would have netted $3,075,000. But the conditions are impossible. It is the same with New York. In 1880, New York and six adjoining counties had 25,239 deaths of persons over five years of age. Making an assumption regarding their estates as preposterous as that made in the case of Chicago, the return from Mr. Jacobson's tax would have been less than $7,000,000.

Two things are very evident, — first, that Mr. Jacobson made no estimate of what his plan would cost; second, that he very much overestimates the number of fortunes of $20,000,000 and over, in this country. His tax is 50 per cent on fortunes of $5,000,000 and over, to be sure; and, if a few persons possessing that sum were to die at once, the return would be far greater than we have estimated. But such persons do not all die at once, and moreover, in the long-run, our overestimate of the number of millionnaires would suffice to make up the sum their deaths would contribute. It might even happen that Mr. Jacobson's estimate of the number of immense fortunes is approximately true: the amount raised by the tax would still be far short of the necessary expenditure. The plan is a brilliant one. It has many excellent points. We admire its author's enthusiasm for the manual-training school. His suggestion as to a graduated tax on estates commends itself to our judgment. But as a plan to solve the labor problem, it will not work. This is partly because the income under the plan would not pay the expenditure, and partly because the labor problem is, in many respects, the problem of human nature. In Mr. Jacobson's sense of the word 'solution,' it cannot be solved.

NOTES AND NEWS.

THE annual meeting of the Association of the Colleges of Ohio will be held at Athens, Dec. 26, 27, and 28, 1887. The following is a list of the papers expected: Monday, Dec. 26, opening address, by Pres. Eli T. Tappan, commissioner of common schools. Tuesday, Dec. 27, 'The Aim of the College,' by Prof. C. L. Ehrenfeld, Wittenberg College; 'Rhetorical Studies and Literary Work in College,' by Prof. W. B. Chamberlain, Oberlin College; 'The Claims of Classical Archæology on Classical Teachers,' by Prof. B. Perrin, Adelbert College; 'Geology and Mineralogy in our Colleges,' by Prof. J. F. James, Miami University; Symposium, 'The Elective System with Us, What we Do and What we Think,' by the presidents or other representatives of all the institutions in the association. Wednesday, Dec. 28, 'Preparation for College in Ohio,' by Prof. Charles Chandler, Denison University. Meetings of the association will be held in the chapel of the Ohio University; entertainment at the Central Hotel, at $1.50 per day, and at the Warren House at $2 or less, according to the number stopping there. Trains leave Columbus for Athens at 7.45 A.M., 3.10 P.M., and 6.10 P.M., standard time.

— A literary and musical entertainment was given at the residence of Mr. and Mrs. H. Herrman in New York on Wednesday evening, Dec. 7, in aid of the Erminnie A. Smith memorial prize fund at Vassar College. The evening was a very enjoyable one, there being two hundred and fifty persons present, and a fine collation being furnished by Mrs. Herrman.

— The five lessons on problems in physical geography delivered by Prof. W. M. Davis, under the auspices of the Teachers' School of Science of the Boston Society of Natural History, during the winter of 1886–87, were so novel and useful to teachers, that he has been invited to give a course during the coming winter upon the physical geography of the United States. This course will be in part a continuation of last year's lessons; but the addition of new matter, new models, more extended illustrations, and the special attention given to our own country, will make the lectures practically distinct from those given last winter.

LETTERS TO THE EDITOR.

*** Correspondents are requested to be as brief as possible. The writer's name is in all cases required as proof of good faith.*

Twenty copies of the number containing his communication will be furnished free to any correspondent on request.

The editor will be glad to publish any queries consonant with the character of the journal.

Conspiracy of Silence.

THE discussion published in a recent number of your journal (*Science*, x. No. 252), relative to the faith of scientists, is the revival of a topic which seems to have been long since definitely settled. If history can be credited, scientific men in every age have fought vigorously against progress. An interesting example is furnished by a brilliant French novelist, Mr. Paul Féval, and probably few will fail to recognize the truth of the following quotation: —

"Il fallut cependant des années encore pour que ce savant et illustre corps, le marine de l'Etat, voulût bien prendre en considération cette force qui fait reculer le vent et se rit de la violence même des courants. Il est vrai que l'Académie professait, vers le même temps, cette opinion: qu'une vitesse de dix lieues à l'heure, sur un chemin de fer, supprimerait la respiration chez l'homme et tuerait tous les malheureux assez fous pour se livrer à ces folles expériences. Il serait puéril d'accuser notre marine ou nos académies. Le monde est ainsi fait. Tout progrès gêne quelque intérêt ou froisse quelque orgueil.

"Dans le doute, abstiens-toi, disait la sagesse antique; la sagesse moderne répond: *Si tu ne sais pas, empêche!* Fera-t-on jamais le compte des hommes et des idées mis à mort au nom de ce fantôme idiot que les sages nomment *l'invraisemblance?*"

The *naïve* confession of Mr. Bonney practically concedes the whole case. Here are two theories of the formation of coral reefs, each dependent upon a certain set of facts, accessible to all investigators. Mr. Bonney says that the scientific method is to wait, and not to investigate. He is not able, he says, to make up his mind which theory is correct. Is this really a scientific method?

The ideal scientist, it will readily be admitted, is a person whose sole aim is to discover the truth of any matter under investigation, regardless of all personal or partisan feelings. The actual man of science, for the reason that he is a man, is influenced, unconsciously it may be, by his human characteristics, and frequently allows prejudice to overcome reason. In the particular case already considered in your columns, it appears that Mr. Murray discovered some facts which were unknown to Darwin, and that, these facts admitted, Darwin's theory must necessarily be modified. This is the precise point which Mr. Bonney adroitly evades: does he believe the facts stated by Mr. Murray; and, if so, can he reasonably continue to accept Darwin's theory? What excuse is there for waiting, unless, indeed, Darwin is an idol whose sayings, because they were made by him, must be received with reverence by all his followers?

This theory of Darwin's is only one of a number of beliefs which scientists uphold with obstinacy, in the face of contrary evidence; but, as is well said by the writer already quoted, —

"Mais, en tout siècle, les sages eurent beau se coucher au travers de la grande route vù marche l'humanité, l'humanité passa. L'invraisemblance, grotesque épouvantail, recule ses brouillards devant la lumière. Des miracles, déclarés impossibles, se promènent paisiblement dans nos rues. Et tout va vite: voyez! il y a de cela quarante ans à peine; en cherchant bien, vous trouverez certes encore, vivant et grignotant sa bribe du budget, quelqu'un de ces Spartiates dont la main tremblotante essaya d'arrêter la vapeur!"

It may be of interest to glance briefly at another celebrated theory, which has been treated by scientists in a manner very similar to that pursued in the case of coral formations. About the year 1844, Messrs. Favre and Silbermann experimented on the heat evolved by the combustion of certain elementary and a few compound combustibles. Their experiments, far surpassing in accuracy all those hitherto made, were accepted by scientific men generally, and their results are given in most text-books and treatises on heat. These distinguished experimenters did not think it necessary to test the heating-power of the familiar compound, coal, but considered that it could be calculated with sufficient accuracy by analyzing the coal, and assuming that the heating-power was the same as the sum of the heating-powers determined for the various combustible elements, less the unavailable heat of so much of the