

reduction of the usually present ferment-like 'complement' of Ehrlich and Morgenroth, a body regarded by those authors as essential to the mechanism of vital resistance to infection.

PROFESSOR J. C. WILSON, in a paper on 'Osteitis deformans,' communicated some facts in regard to this rare disease which was first described by Paget in 1877. He thought it might be due to (1) infection by some organism to the action of which bone tissue is especially liable, or (2) to the default of some physiological principle which normally regulates and limits the growth of bone. Either of these views may serve as a working hypothesis for investigations into the causes of the disease.

PROFESSOR LEWIS M. HAUPT, of Philadelphia, a member of the Isthmian Canal Commission, presented a paper, fully illustrated by lantern slides, on the proposed 'Isthmian Canals.'

PROFESSOR M. D. LEARNED, of Philadelphia, presented the final paper of the meeting on 'Race Elements in American Civilization and an Ethnographical Survey of the Country.' This paper presented in condensed form the importance of a thorough investigation of the race elements in our American life and institutions, with illustrations from the influence of the German element upon American agriculture, industry, trades, commerce and particularly upon our educational and scientific methods, our social and economical life and our art and literature.

The plan of an 'Ethnographical Survey' has already assumed practical form, and an expedition is being equipped for the coming vacation. The work will furnish data of wide range, on the survivals of early German culture, the architecture, geographical distribution, migration of early settlers and the present economic, sociological, in-

dustrial and other cultural conditions of the German element.

The social features of the meeting were most enjoyable. Luncheon was furnished at the hall of the Society on Thursday and Friday and many opportunities were afforded for making and renewing acquaintances. On Thursday evening a largely attended reception was given in honor of the members of the Society at the University of Pennsylvania. On Friday evening the visiting members were the guests of the resident members at dinner at the Hotel Bellevue on which occasion one hundred and eighteen members were present. At the close of the dinner Professor W. B. Scott, acting as toastmaster, introduced in happy vein the persons named below, who responded ably and delightfully to the following toasts: 'The Memory of our Founder,' Mr. Samuel Dickson; 'Our Sister Societies,' Professors Edward S. Morse and J. McKeen Cattell; 'Our Universities,' President Francis L. Patton and President Ira Remsen; 'The Future of Science,' Dr. Wm. Osler; 'Our Guests,' Professor H. Morse Stephens.

At the close of his remarks Professor Stephens proposed a toast to 'The Health and Continued Prosperity of the American Philosophical Society,' in which all present joined.

OUR SISTER SOCIETIES.*

I REALIZE the honor of being asked to respond for the National Academy of Sciences to the toast 'Our Sister Societies.' In a sense the National Academy of Sciences may be considered more intimately related than a sister, for on its organization and incorporation by the National Government in 1863 we find among its fifty members forming the corporate body the largest number from any one place were

* Speech at the dinner on the occasion of the recent general meeting of the American Philosophical Society.

Philadelphians, and all of these were members of the American Philosophical Society. Its first president was one of your number as well as one of your presidents—Alexander Dallas Bache; and the man who was intrusted with the treasurership was another Philadelphian, and a member of your society—Fairman Rogers. More than half its members to-day are members of your Society. There is every reason why the two societies should be strongly affiliated; they are both working in the same spirit and in similar departments of research, and for a similar purpose—the advancement of science; and in that advancement of science the question is never asked whether it will be for the benefit of man or not. Cherished beliefs are shaken, dreadful doubts are engendered, but mysterious is the fact that the advancement of truth and knowledge tends to the bettering of man's condition. The duration of human life has been lengthened, the hours of labor shortened and an advance in human comfort has been attained. Plagues have been confined to those countries where fetich worship takes the place of observation. These, however, are trite and well-worn statements. What we should ask ourselves is, have the sister societies any other duties beside those of accumulating museum material and publishing transactions? With the knowledge embodied in these publications should we not in some way convey the results of our methods to the masses?

The aggressive actions of the temperance advocates have gone so far as to prepare and cause to be introduced into our common schools text-books urging their cult in a way that, considering the mission of the societies, is decidedly intemperate. Following their example we shall have forced upon us by ignorant school boards pleas for anti-vaccination. With the record of a hundred thousand astrologer's almanacs

sold in London last year and the cultured city of Boston supporting astrologers and clairvoyants by the score, as attested by the advertising space accorded them in the daily press we may look forward for text-books on palmistry, astrology and the like in the near future. Should not an effort be made to formulate principles which underlie phenomena? Quetelet insisted upon the value of large numbers whether in measurements or statistics. A child should be made to understand the value of averages, the importance of a curve. Let us have a text-book on civil service reform. On the hundredth anniversary of your incorporation, in 1880, one of your members, Mr. Snowden, Chief of the United States Mint, made an admirable address on the necessity of civil service. This was buried in the records of that great meeting. Consider how graphically the principles he urged could be placed before the grammar school classes. Such an exposition would be prefaced by the great principle of natural selection with its fascinating illustrations from the animal kingdom. The economy of civil service could be shown in that we directly select the fittest without first killing nine tenths of the population. It would not be amiss to show how near we are to the barbarian in many ways, in that we do not profit by example. We contemplate with delight the perfectly governed cities of Birmingham and Berlin, we see the great reduction in the death rate by the introduction of pure water in Munich and in ten great cities of Great Britain, yet, with an equally intelligent population in our country, consider the management of some of our great cities in these matters.

In some way should be brought to the comprehension of the masses the relation of quantity and quality. I have elsewhere called attention to the absurd contrasts often made in the public press to illustrate

the magnificence and grandeur of our country. We are told, for example, that Texas is larger than the whole of Europe, not including Russia, yet if Texas were concentrated to a square rood it would not contain as much art, science or music as may be found in many of the hundred smaller towns of Germany. We are told that the two Dakotas are as large as Greece. This comparison is as ludicrous as to say that Daniel Lambert was six times as large a man as Raphael. A bound volume of the *Bloody Gulch News* might exceed in weight and size the first folio of Shakespeare, a crematory for garbage might have a chimney exceeding in height Bunker Hill Monument. These are the kinds of figures we are told our boys and girls should know. Our people need to be taught the true value of comparison. They will be none the less patriotic, but they will be the more eager to establish and sustain with generous hand those kinds of institutions which make Europe so attractive to every intelligent American. Precisely how this work is to be accomplished I do not know, but it would seem that scientific societies, by the appointment of committees, should embody the principles of science so that the young mind may gradually grow to a comprehension of the right way of living and thinking. There is a scientific way of dealing with crime and vagabondage; there is a scientific way of administering charities, there may be a way of showing the survival in the human mind of belief in omens and dreams; and the child should be taught to appreciate the condition of a man, otherwise intelligent, in whose brain there survive a few molecules that lead him to believe in hallucinations. Even at the present time we see surviving in a few brains the ancient and almost universal belief that the world is flat.

This work should be international. We have so many international agreements,

such as signals at sea, longitude and latitude and an international postal union; let us have international text-books to make the twentieth century leave its fetiches, its idiocies, its enslavements to the vagaries belonging to the imagination, and realize, in the words of Huxley, that 'Science is teaching the world that the ultimate court of appeal is observation and experiment and not authority, she is teaching it to estimate the value of evidence, she is creating a firm and living faith in the existence of immutable moral and physical laws, perfect obedience to which is the highest possible aim of an intelligent being.'

EDWARD S. MORSE.

SCIENTIFIC BOOKS.

Inductive Sociology, a Syllabus of Methods, Analyses and Classifications, and Provisionally Formulated Laws. By FRANKLIN HENRY GIDDINGS, Ph.D., LL.D., Professor in Columbia University. New York, The Macmillan Co. Pp. xviii + 302.

A new book by Professor Giddings is an event of first-rate importance among the sociologists. The present volume is notable not merely because anything produced by its author is bound to attract attention. It is in many respects the maturest and most important of his publications. One fact among others will be better appreciated within the craft than among other specialists. Professor Giddings has very pronounced peculiarities of view with respect to both material and method of sociology. In the present volume those peculiarities stand out more distinctly than ever. Their reception by the sociologists is likely to be much more tolerant, and even sympathetic, than could have been the case ten years ago. This indicates not so much that Professor Giddings' views will be accepted, as that differences which seemed essential ten years ago have come to be regarded as variations of points of view, and of emphasis; while other differences concern matters of method which are not mutually exclusive, but which are largely questions of very complex relativity. Sociologists will find very much to