

IS OUR PLAN OF MEETINGS THE BEST POSSIBLE ?

DURING the recent Washington meetings of the American Association for the Advancement of Science and Affiliated Societies I tried to satisfy my appetite by partaking of the scientific menus prepared. Eagerly I went from section to section to glean all I could, while the opportunity lasted, from the tables containing food. I thought I might eat without resulting indigestion. But after it was all over and I began to take stock of the whole banquet I was frankly disappointed. I was still hungry. And why?

I tried to analyze the situation and find out. After the hustle and excitement were all over and scientific tranquillity again prevailed in Washington, the following factors and resulting questions were considered as being closely related to the problem:

In several of the sections the programs were made up of a great many fragmentary papers unrelated to anything either preceding or following—models of isolation in majestic aloofness of any entangling alliances with other parts of the program. While five or ten minutes had been indicated as the time required for a paper, in numerous cases the enthusiastic exponent of the fragment of truth seemed utterly oblivious of the passage of time and the fact that he had made not only a probable but a palpable error in his calculations of two hundred or three hundred per cent. The great number of papers listed, therefore, looked formidable and prevented any material discussion of them to determine the exact relationship they bore to the world into which they had been momentarily exposed.

A surprisingly large number of these presentations were made by the younger generation of scientists, some of whom are just appearing on the horizon; and while the meetings were in session the older, wiser and more experienced members were often congregated in the halls enjoying the cordial contacts of friendship or exchanging views on matters of common interest. Their attitude seemed to be that they could later read the papers that are presented in the society's magazine, so why waste time in hearing them?

Now while it is recognized that one of the most important advantages to be gained from the meetings of the American Association for the Advancement of Science is the personal association with one's coworkers in science, may it not be possible to make the meetings so stimulating and interesting that more will desire to be present? Would it not be well to have the symposium idea more thoroughly developed and a much greater amount of interesting discussion engaged in? If the subjects for the symposium are

carefully chosen from the standpoint of importance and current interest, the foundation should be laid for meetings of great benefit to those attending. In that event the menu might be so inviting that even the older members would be attracted to it and then give a really worth while "after-dinner speech."

It might be argued that this method would deprive many of the younger men of the opportunity of appearing on the program. But the door would still be open to them to contribute their viewpoint in the discussion or perhaps present some of the important symposium papers. Considering, however, the greatest good to the greatest number, would there not be distinct advantages to be gained by providing for fewer formal, fragmentary papers and for more time for thoroughly discussing in an informal way and from many angles some of the big aspects of research as applied to the outstanding problems with which the section for the time being is most concerned? I wonder if others may not have asked themselves the same question.

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EVOLUTION IN EDUCATION IN CALIFORNIA¹

IN view of criticisms made before the State Board of Education regarding the presentation of the subject of evolution in certain text-books used in the high schools and junior colleges of this state, and of the board's desire that a careful review of this subject be made by qualified experts, the State Board on August 5, 1924, requested

the presidents of the institutions in California accredited for high school certification as follows: University of California, Stanford University, Mills College, University of Southern California, Occidental College, Pomona College, University of Redlands, College of the Pacific and Dominican College to review these text-books and report to this board whether in their judgment there is in any of these text-books a presentation of the subject of evolution in such a way as to discredit the Bible and to develop in the minds of high school students an attitude of irreverence and atheism.

The president of the University of California was requested by the State Board of Education to serve as chairman of the committee of nine presidents.

The list of high school text-books of science submitted to the Committee of Nine, with page references to passages relating to evolution, is as follows:

¹ Report of Committee of College and University Presidents on the subject of evolution as treated in certain text-books used in high schools and junior colleges of California.

Bedford, *General Science*, p. 310 and following.
 Hessler, *First Year of Science*, p. 258 and 312.
 Elhuff, *General Science*, p. 305-334, 393, 407.
 Gruenberg, *Elementary Biology*, p. 437, 274-335.
 Hunter, *Civic Biology*, p. 191-196, 249, 404-406.
 Moon, *Biology for Beginners*, p. 316-341.
 Gager, *Fundamentals of Botany*, p. 502.
 Jordan, Kellogg & Heath, *Animal Studies*, p. 417-448.
 Linville & Kelly, *Text-book in General Zoology*, p. 99-115, 292, 434 to end of book.
 Eddy, *General Physiology and Anatomy*, p. 38, 218, 219.
 Norton, *Elements of Geology*, p. 291, 443 to end.
 Young, *Lessons in Astronomy*, p. 348-358.

In response to the opportunity afforded by the Board of Education to all parties present at the hearing conducted by the board on August 4, 1924, and to all others interested, briefs on the subject of evolution, with special reference to the teaching of that subject in state-supported schools, were presented by

Rev. T. Hector Dodd, San Rafael.
 Rev. Harry Gill, Sacramento.
 Rev. Clarence Reed, Oakland.
 Rev. George L. Thorpe, Corona.
 Rev. E. E. Wall, Sacramento.

The members of the Committee of Nine have examined and considered those pages and sections of the twelve text-books to which their attention has been specifically directed, and likewise the five briefs. The committee respectfully submits the following report:

The theory of evolution, in one or another of its phases, is referred to in these books—it could scarcely be omitted from any text-book on biology, or astronomy, or geology—and in a few of the books some of the evidence in support of the theory of evolution is presented. In our opinion, these books have treated the subject with moderation and circumspection. There appear to be no statements derogatory to the Bible, and in the few instances in which the possible bearing of evolution upon religion is discussed at all, the writers have taken special pains to assure the readers that there is no conflict between science and religion. Evolution is presented as a theory, and not as an established fact, although it is stated here and there that the theory of evolution is commonly accepted by scientific men, and that is true. On this phase of the subject the following quotations have bearing:

A. Moon's *Biology for Beginners*, pp. 329-331: "Some Things that Evolution does *Not* Teach. . . . 'That man is descended from a monkey.' That God can be left out of the scheme of Creation. . . . While we can not go into the argument here, rest assured that in the minds of the greatest scientists and philosophers there is no conflict between the conclusions of Science and Religion. To

quote Davenport, 'The Creator is still at work, and not only the forces of Nature, but man himself, works with God in still further improving the earth and the living things which it supports.' "

B. Gager's *Fundamentals of Botany*, pp. 516 and 517. "The publication of Darwin's *Origin of Species* aroused at once a storm of opposition. Theologians opposed the theory because they thought it eliminated God. . . . The unthinking and the careless thinkers accused Darwin of teaching that man is descended from monkeys. Neither of these accusations, however, was true. Darwinism neither eliminates God, nor does it teach that monkeys are the ancestors of men.

"By slow degrees, however, men began to give more careful and unprejudiced attention to the new theory, and not to pass adverse judgment upon it until they were sure they understood it. 'A celebrated author and divine has written to me,' says Darwin, 'that he has gradually learnt to see that it is just as noble a conception of the Deity to believe that He created a few original forms capable of self-development into other and needful forms, as to believe that He required a fresh act of creation to supply the voids caused by the action of His laws.' "

The text-books before us are concerned with presenting scientific facts and theories of which every person with any pretense to an education in the subject or subjects treated should be informed. All departures of the authors from this simple policy may be said to show due respect and consideration for the fundamental principles of religion, as presented in the Bible.

(Signed) W. W. CAMPBELL (Chairman)

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 RAY LYMAN WILBUR
 President of Stanford University
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 President of Pomona College
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 President College of the Pacific
 CATHERINE O'DONNELL
 President of Dominican College

SCIENTIFIC APPARATUS AND LABORATORY METHODS

A SIMPLE MEMBRANE MANOMETER

THE introduction of a cannula into the carotid arteries of small animals like the rabbit, guinea pig and rat is at least for impracticed hands a matter of