

cruited and retained. 2. That administrators consult with professors of biology before hiring new biology instructors. 3. That field facilities such as forests, agricultural lands, ponds, and streams be purchased by the schools for the development of outdoor laboratories. 4. That the influence of the college be extended in matters of conservation, health, science education, and other biological areas through the production of radio programs, television programs, and the writing of pamphlets for the guidance of public school teachers and students. 5. That faculty members be encouraged to write textbooks and laboratory manuals for biology students at the teachers' college level, and that recognition for research and publication be given in terms of academic and economic advancement. 6. That adequate film libraries be established and a greater effort be made to acquire other sensory aids materials which would increase the effectiveness of instruction. 7. That laboratory facilities be expanded and improved to the extent that more space is made available, each student has access to a microscope, and laboratories are used exclusively by classes in biological science. 8. That the number of courses offered in the biological sciences be increased, and that summer courses in field biology be offered to teachers in the public schools. 9. That libraries increase the number of reference books, periodicals, pamphlets, and reprints of articles on biological matters. 10. That present members of biology faculties lacking adequate training be required to take definite steps, under the direction of university professors of biological science and science education, toward the improvement of their backgrounds. 11. That the following undergraduate and graduate courses be considered reasonably adequate preparation for the teaching of biology at the teachers' college level:

Botany: Bacteriology, forestry, general botany, plant anatomy, plant physiology, and plant taxonomy.

Education: Educational psychology, philosophy and history of education, practice teaching, science education, and sensory aids.

English: Composition and grammar, journalism, literature, and public speaking.

Foreign Languages: French, German, and Latin.

General Biological Science: Conservation, ecology, field natural history, general biology, genetics, health, paleontology, and psychology.

Mathematics: Algebra and statistics.

Physical Sciences: Biochemistry, general chemistry, general physics, geology, meteorology, organic chemistry, and soils.

Social Sciences: American history and government, economics, geography, sociology, and survey of civilization.

Zoology: Anthropology, comparative anatomy, embryology, entomology, general zoology, histology, invertebrate zoology, physiology, and vertebrate zoology.

Miscellaneous: Illustration, literature of science, philosophy, photography, radio broadcasting, and religion.



Across The Editor's Desk

A conference on "The Place of the High School in Meeting Current and Future Scientific Manpower Needs in the United States" was held recently at Columbia University under the direction of Dr. F. L. Fitzpatrick. Other speakers were: Dr. H. A. Meyerhoff; Dr. E. Ginzberg; Dr. F. Bowles; Dr. N. Shepard. Dr. Fitzpatrick says, "Recent surveys indicate an acute shortage of well-trained scientific personnel, and future prospects are not reassuring. To some extent, this is related to economic causes, but more commonly has its origins in poor school programs for attracting and preparing young people for careers in science. He contends that: (1) many high school science courses are out-of-date in content and methods, and need to be revised; (2) science programs in smaller schools are inadequate in equipment, variety of courses offered, and in teacher competence; (3) of the 60,000 high school science teachers throughout the country, more than half teach science on a part-time basis and the majority, who can teach other subjects, are only "filling-in"; (4) the education of science teachers needs national changes, not only in preparing new teachers but especially in helping experienced teachers to keep up with advances in science and in teaching methods. Dr. Fitzpatrick says, in conclusion, "The problem of how to alert science teachers to this situation, and give them opportunities to improve, is crucial."

A 10 min., 16 mm., sound film in color, "It's Only Beginning," tells the story of industrial research and its contribution to the ultimate consumer and is available on a free loan basis from Scientific Apparatus Makers' Ass'n, 20 N. Wacker Dr., Chicago 6, Ill.

The American Dental Ass'n has produced convincing evidence that great hazards to dental

health result from heavy consumption of sugar in the United States. The evidence includes sweetened and soft drinks. The Association recommends that the sale of sweetened beverages and confections in schools be stopped as a direct help toward improving dental health of school children.

National Teacher Examinations will be given at 200 centers throughout the United States on Saturday, Feb. 13, 1954. Application forms and a bulletin of information, describing registration procedures and containing sample test questions, may be obtained from college officials, school superintendents, or directly from Educational Testing Service, Box 592, Princeton, N. J.

Worth quoting to your students: "It is technology that gives the extra things that count. Industrial technology provides the extra food on the table, the extra mile on the speedometer, the extra dollar in the wallet. It is the extra bushel in the barn, the extra suit in the closet, the extra diploma at commencement time. It is the extra hours of leisure, the extra years of health and life, the extra measure of security. We have now opened up a whole new stage for our national development, a stage on which the elements of the land and the people are augmented by a third dimension—the dimension of science . . ." Excerpt from speech by **Henry B. du Pont** before Kinston, N. Carolina Chamber of Commerce.

The Illinois Society for Medical Research announces a contest restricted to high school students. Essays of 250 words on the topic, "Animal Experiments and My Health," may be submitted before midnight, March 30, to **Dr. N. R. Brewer**, 951 E. 58th St., Chicago 37, Ill. First prize is \$25.00; second, \$15.00; third, \$5.00. Further information may be had from **Dr. Brewer**, **Dr. J. M. Sanders**, 6800 Stewart Ave., Chicago 21, Ill., or Nat'l Society for Medical Research, 208 N. Wells St., Chicago 6, Ill.

Dr. Earl R. Glenn, Fulbright Prof. of Educ. Research, will spend another year at Central Philippines University in Iloilo, one of the central islands. CPU specializes in elementary education, and Dr. Glenn assists teachers in defining investigations for M.A. Degrees. Greetings and best wishes, Dr. Glenn.

Who said this, and when? "**Nothing can better deserve your patronage than the promotion of science.**" George Washington (1790)

Bro. H. Charles, St. Mary's College, Winona, Minn., contributor of *Biology In The News* and aggressive NABT and Editorial Staff Member, suggests that we should have "a book listing each especially active NABT member with personal data and a short summary of the activities and interests of each" for the guidance of new officers and Committee Chairmen. Send him your suggestions on this idea. **Would someone volunteer to compile such "a book"?**

American Cyanamid reports that the new anti-biotic drug, "**tetracycline**," is now on the market. The development of this new antibiotic is one of the most fascinating stories in the annals of modern medicine.

Just reported—through an error in hold-over copy for the Oct. 1953 issue, from the previous editorship, a letter printed at the bottom of Page 162 of that issue was from **Sister Mary Alverna** instead of Sister Mary Aquina.

Oxytocin, a hormone of the body's "master gland," the pituitary, **has been produced synthetically** by a team of biochemists led by **Dr. Vincent du Vigneaud**, Prof. of Biochemistry, Cornell Univ. Medical College. This is the first of the pituitary gland's vital secretions, which include ACTH, to be produced in the test tube, and the first polypeptid hormone to be produced synthetically. Oxytocin is the chief uterine-contracting and milk-releasing hormone of the pituitary gland. The synthetic product has the same physical and chemical properties as the natural compound, and demonstrates the same biological effects in experimental animals and clinical use.



Polio research made great gains in 1953. Don't forget The March of Dimes, Jan. 2-31.

If you could not attend NABT's thrilling Annual Convention at Boston, plan now for 1954.

NABT was ably represented at the "Resources for the Future" conference in Washington, D. C. Dec. 2-4 by **Weaver, Hadsall, Jeffers, and Palmer**. Plans were laid for joint action with other professional groups.

A new high honor and responsibility has been conferred on our versatile Mg. Editor, **Muriel Beuschlein**, recently chosen Chairman of a Local Area Conservation Study Project approved by The Steering Committee of the Illinois Curriculum Study group. **Dick Weaver**, Project Leader of NABT's Conservation Project, working with Illinois Chairman **Bob Smith** and Regional Chairman and NABT Pres. **Art Baker**, interested this group through preliminary meetings started last January. Congrats to Muriel, Dick, Bob, and Art for another major contribution.

You should read the complimentary letters that cross my desk each week on recent Journal improvements. Thanks to all of **you** who helped make these possible. **Let's move aggressively ahead to make ABT the top-ranking publication in its field!**