THE National Committee for Mental Hygiene announces the establishment of a fund for research in psychosomatic medicine. The purpose is to stimulate and subsidize research in the psychosomatic aspects of the diseases chiefly responsible for disability and death. The fund will be directed by Dr. Edward Weiss. Projects will be considered by the following committee: Dr. Charles M. Aldrich, Dr. Franz Alexander, Dr. Stanley Cobb, Lieutenant Colonel William C. Menninger and Dr. John Romano. It will be administered under the direction of Dr. George S. Stevenson, The National Committee for Mental Hygiene. Communications should be addressed to Dr. Edward Weiss, 269 South 19th Street, Philadelphia 3, Penna.

PRESIDENT ROOSEVELT signed on March 30 a bill authorizing the U. S. Department of Agriculture and the Department of the Interior to make cooperative agreements with private forest owners for the establishment of forest units of sustained-yield by which the owners would make an agreement to manage their lands in accordance with certain regulations governing the rate, manner and time of cutting.

IT is reported in *Nature* that the British Institution of Radio Engineers recommends the formation of a British Radio Research Institute, the functions of which would be the pursuit of basic research of the type that has hitherto suffered restriction owing to its high cost, absence of obvious or immediate practical applications, and the poor prospect of early financial returns. It is proposed that the institute be financed by industry supplemented by a Government grant of at least equal amount. The work would be directed by a board representing governmental authorities, the British Broadcasting Company and the Services, the industry, the British Institution of Radio Engineers, the associated professional institutions and the universities of the Empire. In addition to a permanent scientific staff, the assistance and engagement of extramural workers would be arranged in cooperation with industry and the universities.

DISCUSSION

THE THIRD ANNUAL SCIENCE TALENT SEARCH[1]

How do young people develop into great scientists? Can we discover them and then analyze the growth of their scientific careers? A partial answer to such questions is found in the follow-up study now under way concerning participants in the annual Science Talent Search.[2]

This genetic study of science talent is now in its second year, involving the 3,175 contestants with complete entries for 1942, and the 3,481 contestants with complete entrance materials of 1943. Of the 3,175 follow-up questionnaires sent out in January, 1943, to the 1942 contestants, 2,475 or 78 per cent. were returned, and all the information has since been reduced to punch cards. From these data it is known that of the boys who returned questionnaires, 97 per cent. of the winners, 87 per cent. of the "honorable mentions" and 76 per cent. of the other participants had started college. Among the girls, 89 per cent. of the winners, 92 per cent. of the "honorable mentions" and 70 per cent. of the other participants had begun college. Of 216 in the group of trip winners and "honorable mentions" who returned questionnaires, 100 (77 boys and 23 girls) reported scholarships from various sources, the aggregate sum of which is $68,988.98.

Annual surveys of the entrants in the first and second contests are planned for at least the next ten years to learn something about the growth of scientists—"how they get that way"—and to give broad information concerning their social, physical and intellectual development. The results should provide valuable data for bettering the educational planning of talented young people who are potential scientists, as well as supply a basis for judging the validity of the selection procedures.

The selection techniques this year—in the Third Annual Science Talent Search—were quite like those previously.[3] Of about 15,000 entrants, complete entry materials—science aptitude examination, personal data, scholarship record and scientific essay—were received on about 3,000. This group of high-school seniors, then, were considered to have completed the first hurdle.

The science aptitude examination differed from previous years in that only half of it consisted of a paragraph reading test on materials from various fields of science; the other half was composed of scientific problems, with multiple choice answers. Scores on the paragraph material constituted the second hurdle, scores on the problems the third hurdle. The second hurdle reduced the number of contestants from ap-

[1] The opinions or assertions contained herein are the private ones of the writers and are not to be construed as official or reflecting the views of the Navy Department or the naval service at large.

[2] The annual Science Talent Search is conducted by Science Clubs of America and Science Service, and is financed by the Westinghouse Electric & Manufacturing Company.

[3] *Cf.* Harold A. Edgerton and Steuart Henderson Britt, *American Scientist*, 1943, 31, 55–68; *American Scientist*, 1943, 31, 263–265; *Occupations*, 1943, 22, 177–180; "Science and the Future," Washington, D. C., Science Service, 1943, 112–115.

proximately 3,000 students to 812. Of these, 580 were boys and 232 girls, the proportion being in the ratio of the boys and girls with complete entrance materials. The third hurdle eliminated 214 more contestants, leaving 409 boys and 189 girls in the running.

The fourth hurdle was based on the academic record of the individual; the high-school record "composite" score was the sum of relative rank in high-school class and units of high-school science taken, weighted 5:1 respectively. The 450 highest (308 boys and 142 girls) were deemed to have passed this hurdle.

The fifth step was an evaluation of the recommendations made by high-school faculty members.[4] Five trained raters scored this information in terms of specific actual accomplishments; and on this basis the population was then reduced to 207 boys and 93 girls —containing the 40 trip winners and the 260 students who were given honorable mention.

The essays of these 300 were read separately and scored by three members of the staff of Science Service. Every contestant had written an essay of about 1,000 words on the subject, "My Scientific Project," telling what he or she is doing or plans to do in science in the way of experimentation or other research activity.

At this point, on the basis of all the evidence thus far accumulated—the two sets of scores on the science aptitude examination, high-school record, recommendations and essay—the present writers then made a selection of the 40 trip winners to the Science Talent Institute held in Washington, D. C., 28 boys and 12 girls. *The names and geographical localities represented were completely unknown,* for this information had been blanked out so that identification was by serial number only. Also, no questions concerning either race or religion appeared in any of the forms used.

The final selections, from among the trip winners, of the 2 winners (a boy and a girl) of the $2,400 scholarships and the 8 winners (6 boys and 2 girls) of the $400 scholarships, were made with Dr. Harlow Shapley, director of the Harvard College Observatory and chairman of the executive committee of Science Service, acting as the third judge. These decisions were based on the "over-all" previous evidence, plus information obtained from individual, standardized 15-minute interviews specially designed to determine how well the contestant is fitted for a promising career in science. Scores on the Bennett Mechanical Aptitude Test,[5] which was administered at the Science Talent Institute, were also considered, as well as personality data obtained in an additional interview by a psychiatrist.

The 40 finalists this year are residents of the following states: Alabama, 2; Arizona, 1; California, 1; District of Columbia, 1; Florida, 1; Georgia, 1; Illinois, 2; Michigan, 1; New Jersey, 3; New York, 14; Ohio, 3; Pennsylvania, 3; Virginia, 1; West Virginia, 1; Wisconsin, 4; and Wyoming, 1.

The scholarships permit the winners to go to any college, university or technical school of their own selection for training in science or engineering; courses that may be pursued are those encompassed in the fields of activity of the National Academy of Sciences and the National Research Council. Eleven of the trip winners in this year's Science Talent Search hope to do research in biology, chemistry, medicine or physics; three want to be electronic engineers; two expect to become theoretical chemists, and one a mathematical physicist. Other choices of probable fields of study range from naval architecture to biochemistry. The careers of these trip winners will be carefully followed.

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[4] *Cf.* Edgerton and Britt, *Occupations, op. cit.*

[5] George K. Bennett and Dinah E. Fry, "Test of Mechanical Comprehension," Psychological Corporation, 1941.

CONCERNING "GENOTYPES"

OF recent years there have grown up in both botany and zoology two uses of the word "genotype." That with a longer history is clearly defined in B. Daydon Jackson's "Glossary of Botanic Terms" as "the type of a genus, the species upon which the genus was established." But the usage which is now becoming prevalent is that of "a combination of the genes of an organism." Although the two terms come into little conflict, the former being employed by taxonomists and the latter by geneticists, I have noticed an increasing tendency for taxonomic workers to substitute for this word the phrase "type species." It is well in science to employ such terms as "genotype" with a single unequivocal meaning.

While priority sanctions the taxonomic use of the word, etymology does not. "Genotype" in the genetical sense is based simply and properly upon the Greek γενος, meaning "race" or "offspring," but in the taxonomic sense it is based upon the Latin "genus" (as employed in modern science), the stem of which is not "gen" but "gener." Etymologically, the compound of "genus" with "type" should be "generitype" rather than "genotype." We have the right formations in the adjectival "genic" and "generic"; every one recognizes that genic differences are between genes, while generic ones are between genera.

I suggest that the situation be cleared by taxono-