

GENERAL SCIENCE

Science Talent Institute

President Truman promised the 40 honor-trip winners that when peace came to the world there would be an immense number of jobs in the field of science.

See Front Cover

► FORTY boy and girl winners, the year's top talented young scientists of America, attended the five-day Science Talent Institute in Washington (March 3-March 7) as the culminating event in the Science Talent Search for \$11,000 in Westinghouse Science Scholarships. This educational event is conducted by the Science Clubs of America, administered by Science Service.

Upon their arrival in Washington, the young scientists were welcomed at the White House by President Truman, as shown on the cover of this week's SCIENCE NEWS LETTER. He stated in part:

"There never was a time in the history of the world when we need scientists and people of energy as we need them now. There is more room at the top now than ever in the history of the world.

"Don't let anybody tell you that by effort and by hard work you can't reach the top of the profession, if you want to, because people who try to work and want to work are as scarce as the proverbial hen's teeth. Those people who want to work and are willing to shoulder responsibility will always find plenty of responsibility and plenty of work. I think I am in a position to say that better than most anybody.

"So just bear that in mind. And I want to congratulate all of you. I appreciate the privilege of getting a chance to see all of you, and I hope that you will go out of here with the idea of finishing the job and becoming an asset to this great United States of America.

"If at a later date the peace comes to the world and we proceed to implement the policies which we are trying to inaugurate, there will be an immense number of jobs—a greater number of jobs in your line—than there will be men and women available to fill them."

This issue of the SCIENCE NEWS LETTER contains some of the addresses made by leading scientists. Further activities of the Institute will be reported in the next issue when the scholarship winners will be announced.

Science News Letter, March 12, 1949

Pure Science Aids Progress

► "PURE science is the life blood of all industrial progress," an industrial research executive told the nation's top high school scientists.

Dr. John A. Hutcheson, director of the Westinghouse Research Laboratories, told the 40 winners of the Eighth Annual Science Talent Search that government and

university laboratories have no monopoly on pure research.

He said that huge sums are spent each year by industry in scientific research "quite without regard to immediate practical application."

He cited the construction of an atom smasher by Westinghouse before nuclear fission was demonstrated as an example of pure research which later "paid off." Westinghouse scientists later discovered the exact amount of energy required to split uranium atom.

"The fact is," declared Dr. Hutcheson, "that industrial progress would come to a complete standstill without pure research."

Science News Letter, March 12, 1949

Genetics Called Practical

► MENDELIAN genetics, the branch of science that has been suppressed in the USSR partly on the grounds of its alleged

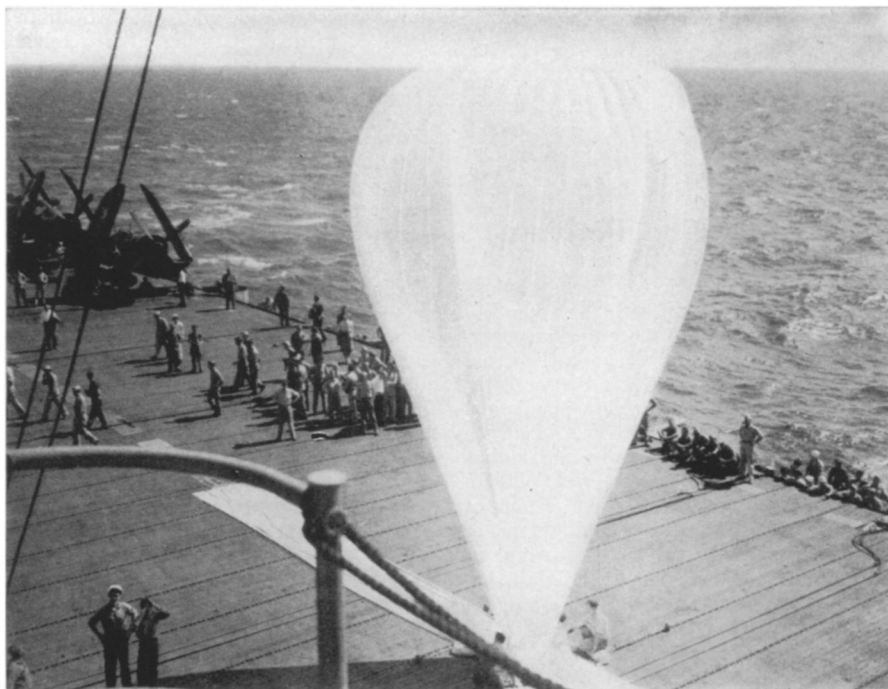
impracticality, was declared of immense practical value by Dr. M. Demerec, geneticist of the Carnegie Institution of Washington. He spoke before the Science Talent Institute, attended by the 40 winners of the Eighth Annual Science Talent Search for the Westinghouse Science Scholarships.

"From the practical standpoint, genetics has made many important contributions to the improvement of domestic animals and plants," Dr. Demerec stated. "The most striking success has been accomplished in corn breeding, where the crop yield has been increased about 20% by the use of hybrid corn, developed through methods based on the theoretical work of G. H. Shull. In 1948 the value of this increased yield was around a billion dollars.

"Production of penicillin also has increased, five- to sevenfold, through the development of high yielding strains of Penicillium by genetical methods."

Genetics is also proving of great value in untangling knotty questions in other fields of biology. The speaker cited, as one example, the use of special strains of a fungus in studying how amino acids, the building-blocks of proteins, are put together by living organisms. This is a problem in physiology with eventual possibilities in such everyday practicalities as the production of bread, beans and beefsteaks.

Dr. Demerec reviewed the recent controversy among Russian biologists, which



OPERATION SKYHOOK—A high-altitude plastic balloon, as seen from the bridge of the USS Saipan, aircraft carrier, shown nearly ready for launching, reached an altitude exceeding 90,000 feet. This took place in the Caribbean area as part of a cosmic ray research project being carried out under the direction of the Office of Naval Research. The project gets its name from the 100-foot balloon, several of which were launched carrying cloud chambers.