



OPENING EXERCISES

Presiding when the winners were welcomed to Washington and were given their final written examination were: Dr. Stuart Henderson Britt (left), Dr. Harold A. Edgerton, Dr. Alexander Wetmore, Assistant Secretary of the Smithsonian Institution in Charge of the National Museum, and Dr. Harlow Shapley. In the background is Watson Davis.

to girls constant. Of these 300, 66 were girls and 234 boys. These 300 were then exposed to the third hurdle.

The third hurdle was the score derived from the recommendation blanks. Each item of the recommendation blank was scored either one or zero, indicating respectively good evidence of high standing in a trait or little or no evidence of high standing in a trait. Each item was scored independently by two judges. The amount of agreement between the two judges was high. On the basis of this score, the 117 highest boys and 33 highest girls were said to have survived the third hurdle.

To complete the fourth hurdle, the essays were considered. These essays were read by members of the staff of Science Service. Three raters judged the essays for the girls and 4 raters judged the essays for the boys, each rater giving a score of *good*, *fair*, or *poor* to each essay submitted.

In choosing the 40 trip winners from the 150 survivors of the third hurdle, the score on the essay and all of the previous evidence was considered. On this basis, the 40 winners, 9 girls and 31 boys, were invited to Washington.

The fifth and last hurdle applied to the 40 trip winners, survivors of four

previous hurdles, included two new sources of information about each contestant. The larger part consisted of the judgments of three interviewers. The interview was standardized, aimed primarily at exploring breadth of background of the contestant; how well his background fitted him for preparing for a career in science; and how strong a drive each seemed to have toward a career in science. Each contestant was interviewed separately by three interviewers. (The other interviewers were Dr. Stuart Henderson Britt and Dr. Harlow Shapley.) After finishing the interview, the interviewers made their ratings of the contestant before going on to the next interview.

A test designed to judge the clarity of thinking of the 40 trip winners, in regard to social situations, was also administered.

The scholarship winners among the 40 were selected primarily on the basis of the interview. All the evidence: test scores, high school rating, recommendations, etc., was carefully considered. Selection was made on a conference basis rather than on the basis of numerical artifacts.

No technique of selection can guarantee that all of those selected will become

outstanding scientists. It is hoped, however, that among the 40 one or two may become outstanding leaders in their sciences and that many more will make substantial contributions to science.

Science News Letter, July 25, 1942

ORDNANCE

Arms Manufacture Nothing New in India

MANUFACTURE of arms and ammunition in India is nothing new, despite present somewhat lively discussion of the industry. Arsenals at Cossipore and Ishapore, near Calcutta, have been in the gun-making business for a long time, states S. J. Hopper, former superintendent at both those places. (*Army Ordnance*, July-August.)

There was a gun factory at Fort William in Calcutta more than 150 years ago, and the establishment at Cossipore was set up just at the beginning of the 19th century, Mr. Hopper states. Prior to 1850, ordnance as heavy as 13-inch mortars and 32-pounder long guns had been cast in iron at Cossipore, besides bronze pieces in a variety of calibers.

Ordnance activities in India during the present war have included enlargement of both these establishments and intensification of the work programs there, including the training of considerable numbers of new native employes. There has also been a good deal of war-conversion of other shop facilities, especially railway construction and maintenance shops.

Products of ordnance plants in India now include field guns, machine guns and small-arms, with ammunition in great quantities; armored cars; two types of airplanes based on American models, and gas masks. Indian shipyards are turning out trawlers, mine-sweepers, lighters and similar small craft, though engines and boilers still have to be imported. An effort is now being made, however, to manufacture the propelling machinery at home.

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● RADIO

Saturday, August 1, 1:30 p.m., EWT
"Adventures in Science," with Watson Davis, director of Science Service, over Columbia Broadcasting System.

Drs. John Q. Stewart and Newton L. Pierce, of Princeton University, will discuss Navigation in War and Peace.

Tuesday, July 28, 7:30 p.m., EWT
Science Clubs of America programs over WRUL, Boston, on 6.04, 9.70 and 11.73 megacycles.

L. B. Argumbeau, Massachusetts Institute of Technology, will discuss "Frequency Modulation."

One in a series of regular periods over this short wave station to serve science clubs, particularly in the high schools, throughout the Americas. Have your science group listen in at this time.