

## GENERAL SCIENCE

# Winners of Scholarships

## GRAND SCHOLARSHIP OF \$2,800

Moore, Robert Thorpe, Silver Spring, Md.

## \$2,000 SCHOLARSHIP AND ALTERNATE FOR \$2,800

Clark, John Bell, Sycamore, Ill.

## ALTERNATE TO THE \$2,000

Venable, John Heinz, Jr., Atlanta, Ga.

## SCHOLARSHIPS OF \$400

Bardeen, James Maxwell, Urbana, Ill.  
Campbell, John Howland, Minneapolis, Minn.  
Ch'en, Daniel, Eugene, Ore.  
Ford, Edwin Foster, Arlington, Va.  
Johnson, Dennis Lee, Exeter, N. H.  
Joyce, Carol Ann, Appleton, Wis.  
O'Brien, Thomas William, Rochester, Minn.  
Venable, John Heinz, Jr., Atlanta, Ga.

## ALTERNATES

1st alt. Anderson, Gary Bertel, Truckee, Calif.  
2nd alt. Nading, Lewis Karl, Indianapolis, Ind.

## SCHOLARSHIPS OF \$100

Anderson, Gary Bertel, Truckee, Calif.  
Brower, Edmond Dehm, Augusta, Maine  
Carroll, Robert Lynn, Mason, Mich.  
Diamondis, Peter John, South Bend, Ind.

## PHYSICS

# Test Hypervelocity Gun

► MISSILES the size of golf balls have been fired at speeds over 7,000 miles per hour from a new hypervelocity gun for the first time.

The research tool promises to save taxpayers tens of thousands of dollars each time a test missile is fired.

The new gun was shown by Dr. Hermann H. Kurzweg, chief of the Aerobalistic Research Department, U. S. Naval Ordnance Laboratory, to the 40 finalists. (For related story, see p. 164.)

"Never before have missiles of this size been fired and photographed at such speeds," Dr. Zaka I. Slawsky, chief of the hyperballistics division, told the group. "Since so little is known with certainty about the forces air exerts on objects traveling at these speeds, and, conversely, about the effects such objects have on air, any information we collect will increase materially the rate at which successful high speed missiles can be made."

The gun is the first ever developed that can launch models equipped with instruments to study the effects of super high speeds on airplanes, missiles and satellites.

The instrument, Dr. Slawsky said, will "enable us to launch models of planes and missiles at the enormous speeds needed for long-range flight and to attain the orbital speed necessary to reach satellite motion."

The gun, which is undergoing further

Edmunds, Leland Nicholas, Jr., Newport News, Va.

Egnitz, Ronald Michael, Braddock, Pa.  
Fisher, Hersha Sue, Phoenix, Ariz.  
Goodman, John Mott, Seattle, Wash.  
Gorn, Robert Aaron, Newtonville, Mass.  
Gray, Charles Augustus, Washington, D. C.  
Groder, Martin Gary, Forest Hills, N. Y.  
Halpern, Martin Brent, Tucson, Ariz.  
Hansen, Carolyn Marjorie, Kenmore, N. Y.  
Hood, Leroy Edward, Shelby, Mont.  
Hoxie, Dwight Thomas, Mound, Minn.  
Kayser, Boris Jules, Lakewood, N. J.  
Lichtenbaum, Stephen, Brooklyn, N. Y.  
Matchett, Mary-Dell, Hinsdale, Ill.  
Miller, John Charles, Lockport, N. Y.  
Nading, Lewis Karl, Indianapolis, Ind.  
Nearing, James Carr, Inglewood, Calif.  
Och, Rosemary Patricia, Madison, N. J.  
Riendl, Ida Louise, Marshfield, Wis.  
Rony, Peter Roland, Los Angeles, Calif.  
Runnels, Lynn Kelly, Tulsa, Okla.  
Solovay, Robert Martin, Brooklyn, N. Y.  
Thorson, Margaret Ann, Floyd, Iowa  
Yost, James Whitney, Indianapolis, Ind.  
Zimet, Susan Elizabeth, Brooklyn, N. Y.  
Zwillenberg, Melvin Leslie, Brooklyn, N. Y.

Addresses are locations of the schools from which entries were made.

Science News Letter, March 17, 1956

"Perhaps it will help us learn how not only to get a missile up and out of the atmosphere, but to return it to earth, safely and in a pre-determined spot."

Science News Letter, March 17, 1956

**SCIENCE TALENT INSTITUTE SCENES**—The 40 Science Talent Search winners are shown in the photographs on the opposite page in some of their many activities.

Left column, beginning at the top, are: Rep. H. R. Gross (R.-Iowa) and Rep. Noah Mason (R.-Ill.) chatting with winners at the Congressional dinner; three top scholarship winners are congratulated by Watson Davis, director of SCIENCE SERVICE, and Dr. Caryl P. Haskins, president of Carnegie Institution of Washington; seated in a row are four Science Talent Search alumni present this year, Dr. Josiah Macy Jr. '43, Dr. Beatrice M. Shriver '42, Dr. Marina Prajmovsky Meyers '42 and Dr. M. Don George '49, who are advising the 1956 winners; and Dr. Bayne-Jones, retired USAR Brig. Gen. who is technical director of research in the Army's Office of the Surgeon General, shows samples of food preserved by irradiation to several winners.

Center column are: Mary-Dell Matchett and James Nearing photographed on the Capitol steps; Dr. Hermann H. Kurzweg, chief of the aerobalistics research department at the Naval Ordnance Laboratory, explaining to seven of the eight girls the details of testing missiles in wind tunnels; R. J. Walker, a physicist in the mineral products division at the National Bureau of Standards, demonstrates a model of zirconium dioxide to Susan Zimet, and Dr. Daniel Alpert, associate director of Westinghouse Research Laboratories in Pittsburgh, Pa., explains research in gaseous electronics by Westinghouse.

Right hand column are: the ten top winners photographed with Dr. Leonard Carmichael, secretary of the Smithsonian Institution and president of SCIENCE SERVICE; Dr. Bayne-Jones, Dr. C. C. Furnas, Assistant Secretary of Defense for Research and Development, and Dr. I. I. Rabi, Nobel physicist professor at Columbia University, discuss their research with some of the winners; Dr. Alpert answers questions concerning his research on charged particles in gases, and winners see the cyclotron at Carnegie Institution's Department of Terrestrial Magnetism. →