

GENERAL SCIENCE

Second National Science Fair

Winners in the Second Annual National Science Fair are named. Thirty finalists hear Dr. Arthur Compton cite need for science skills for defense.

► TWO BOYS and two girls, from Hyattsville, Md., St. Paul, Minn., Belleville, Ill., and Warwick, R. I., were judged first place winners in the Second National Science Fair, held in St. Louis.

They are: Mary Helen Martin, 17, Hyattsville High School senior, first place girl in the biological sciences section; Peter Miller, 18, senior at St. Paul's Central High School, first place boy in biological sciences; Barbara Evelyn Joy, 16, senior at Aldrich High School in Warwick, first place girl in the physical sciences, and Edmund A. Richards, 16, sophomore at Belleville Township High School, first place boy in the physical sciences section.

Finalists in Local Fairs

Each wins \$125 in scientific equipment and books of his own choosing. They earned the right to compete in the National Science Fair by becoming finalists in local fairs. The national event is sponsored by SCIENCE SERVICE's Science Clubs of America with local newspapers and science educators from all over the nation.

Miss Martin was third in last year's national fair. This spring she was one of the 40 Science Talent Search winners. The exhibit which won her first place at St. Louis grew out of an attempt to cross a pimento and a California Wonder pepper. She exhibited her own photomicrographs of cells with different combinations of chromosomes and explanatory diagrams, data charts and procedure techniques. Her trip was sponsored by The Washington Daily News.

Prizes Were "Wished For"

All Fair participants were asked to "make a wish" as to the kind of prizes they wanted if they won. Miss Martin wished for a spotting scope and a telephoto lens.

Mr. Miller has won the American Legion Certificate of School Award and is a member of the Student Council of the Junior Academy of Science. His exhibit on the paleontology of St. Paul consisted of charts containing fossils, diagrams and data, a geologic column, maps and his scientific equipment. He wished for an elementary microscope and a blow pipe as his first prize. He was a finalist in the First Science Congress sponsored by The St. Cloud (Minn.) Daily Times.

Miss Joy is active in the girl scouts, on

the school paper and year book, in sports and the dramatic club. She plans to study dietetics. The exhibit which won her first girl's prize in the physical sciences demonstrated the electrolytic theory of the corrosion of iron and the nature of protection offered by metallic coatings. Her trip to St. Louis was sponsored by The Providence (R. I.) Journal-Bulletin and she wants as her prize a movie camera and projector.

Mr. Richards has won first place three times in the St. Louis Science Fair, sponsored by The St. Louis Star-Times. He has been active in the boy scouts and takes an interest in track and wrestling, the band and dramatics and in church work. He exhibited an infra-red converter tube, patterned after the wartime "snooper-scope" for "seeing" in the dark. He wished for a recording machine, needles and disks.

Second Place Awards

Four second prize winners will receive \$75 worth of scientific equipment and books of their own choosing. They are:

Eva J. Raieta, 17, a senior at the Little Flower Catholic High School for Girls, Philadelphia. Her trip to St. Louis was sponsored by The Philadelphia Inquirer and she will receive a camera and a subscription to SCIENCE NEWS LETTER.

James R. Bosler, 17, a senior at the F. J. Reitz High School, Evansville, Ind. Sponsored by The Evansville Press, he demonstrated the effect of light on plant growth. He wished for a barometer and other scientific equipment.

William A. Scales, 18, is a senior at the Archbold, Ohio, High School. He has participated in science fairs sponsored by the Archbold Buckeye for four years, is president of his school's science club. He exhibited a method of preparing Rochelle salt crystals which produce electric impulses. He wished for electronic equipment for his prize.

LaMar Betz, 18, is a senior at the Quakertown, Pa., High School. His trip to St. Louis was sponsored by the Allentown Call-Chronicle newspapers. He plays baseball and participates in track events. He is a member of the Franklin Scientific Society. He exhibited a cutaway model of a rocket designed to go to the moon. He wanted a camera and case as his prize.



TOP WINNERS—The two boys and two girls who won top Science Fair honors are shown here with Dr. Arthur Compton and Dr. Lawrence Stout. From left to right in the picture are Dr. Compton, Barbara E. Joy, Mary Helen Martin, Peter Miller, Dr. Stout and Edmund A. Richards.



FAIR FINALISTS—Cream of the nation's crop of young scientists, who competed in the Second Annual National Science Fair, photographed just before a guided tour through the Monsanto Research Laboratories.

Third Place Winners

Third place winners, entitled to \$50 in equipment and books each, are:

Alesandra M. Schmidt, 15, Rockville, Conn., High School, who was sponsored by The Hartford Times and whose exhibit was on common molds.

Charles L. Kimbell, 17, McKinley Technical High School, Washington, D. C. He exhibited a fossil animal collection and was sponsored by The Washington Daily News.

Dale H. Learn, 17, Quakertown, Pa., High School, an experimental free-piston gas generator, sponsored by The Oneonta (N. Y.) Star.

Lou Ann Harris, 17, Capitol Hill Senior High School, Oklahoma City, whose exhibit demonstrated the coagulation of blood. Her trip was sponsored by The Oklahoma City Times.

Fourth Place Awards

Fourth place winners of \$12 in equipment and books, and sponsoring papers, are:

Frank W. Rice, 18, Hotchkiss School, Lakeville, Conn., The Hartford Times; Donald P. Shankweiler, 16, Hyattsville, Md., High School, The Washington Daily News; Jean Elizabeth Spencer, 18, Hyattsville, Md., High School, The Washington Daily News; Jim Arden Gilbreath, 17, and Alene Kay Stout, 15, Chanute, Kans., Senior High School, The Chanute Tribune; Robert B. Hotze, 15, Webster Groves, Mo., High School, Joseph L. Kurz, 17, Southwest High School, St. Louis, and Shirley S. Tolentino, 15, University City, Mo., High School, St.

Louis Star-Times; Joan Eileen Smith, 15, Cathedral Academy, Albany, N. Y., The Knickerbocker News; Gloria Mae Hottman, 15, Fargo, N. D., High School, and James R. Hougren, 17, Valley City, N. D., High School, The Grand Forks (N. D.) Herald; Jane Murbach, 18, Archbold, Ohio, High School, The Archbold Buckeye; Rolf Engleman, Jr., 17, Classen High School, Oklahoma City, The Oklahoma City Times; Jacqueline Donna O'Neill, 16, Allentown, Pa., High School, Call-Chronic Newspapers; William Alwine, Jr., 15, Clayton, N. J., High School, The Philadelphia Inquirer; W. Lewis Brillhart, 17, East Providence, R. I., High School, The Providence Journal-Bulletin; and John Robert Kirk, Jr., 15, and Mary Elizabeth Wray, 16, Martinsville, Va., High School, The Martinsville Bulletin.

Compton Praises Scientists

No one deserves more highly the gratitude of his countrymen than he who devotes the power of his scientific talent to the defense of his nation and to creating a world in which wars will no longer be fought."

Dr. Arthur H. Compton, Nobelist-chancellor of Washington University in St. Louis, thus characterized, to the finalists of the Second National Science Fair held there, the role that scientists under present world conditions must play. They provide technical strength for protection against those who could destroy our free way of life.

Because of the scientists who apply science to military purposes, Dr. Compton declared, "others are free to build the new world."

"The great problems that science has before it is to make our life what we want it to be," he said. "The horizons of science itself are boundless. In its applications also science has a great future."

The three gifts that we may expect from new advances, as Dr. Compton stated them, are:

"First, we shall have a greatly improved understanding of our world and of ourselves; second, we shall have far greater command of nature's powers in doing the things we want to do; and third, perhaps most important of all, the growth of science and of the scientific spirit requires of men that they find themselves in working for each others welfare."

Scientists today, Dr. Compton said, in building for the future, "must sharpen the spears that we hold in one hand while we ply the trowel with the other."

Scientists Were Judges

Engineers, zoologists, chemists, physicists and geophysicists were included in the list of judges. Four are from industrial laboratories, five from universities. Here they are:

Dr. Edward M. Brooks, associate professor of geophysics at St. Louis University; Dr. Carl K. Dorsey, lecturer in entomology at Washington University; Dr. Florence Moog, assistant professor of zoology at Washington University; William J. Hedley, assistant chief engineer of the Wabash Railroad; Fred F. Rohne, head radar engineer of the Emerson Electric Manufacturing Company, St. Louis; Dr. Lawrence E. Stout, dean of the school of engineering at Washington University; Dr. Alfred H. Weber, professor of physics and head of physics department at St. Louis University; Dr. Ferdinand B. Zienty, associate director of research for the Monsanto Chemical Company, St. Louis, and Kendall Perkins, executive manager of engineering at the McDonnell Air-Craft Company, St. Louis.

Program for Fair

Thousands of visitors viewed the finalists' exhibits set up in the library of the School of Architecture at Washington University where the 30 were campus guests for the three days. The boys and girls held a private showing for 400 scientists one night and on another night were guests of the University at a banquet for invited scientists, including five Nobel Prize Winners.

The finalists made a guided tour of the city as guests of the St. Louis Chamber of Commerce, visiting the research laboratories of Monsanto Chemical Company and the Ralston Purina Company. They enjoyed a behind-the-scenes showing of the St. Louis Zoo as guests of Director Vierheller. The four winners were made known for the first time when they spoke on a nationwide broadcast of "Adventures in Science."