

"Domain Wall Motion in Iron Whiskers"; Richard Williams, 16, Mount Holly H. S., Mount Holly, N. C., "Cybernetic Simulation of Imagination and Related Thought Processes"; Robert Schilken, 17, Ottawa Hills H. S., Grand Rapids, Mich., "Effect of Gravity on Mice."

Third Award Winners

Third Awards and \$50 Wishes went to: Carolyn Norman, 17, Park Central Sr. H. S., Bluefield, W. Va., "The Cultivation and Utilization of Algae"; Ann Spruill, 17, Jonesboro-Hodge H.S., Jonesboro, La., "Chemical Derivatives of *Myrica cerifera*"; Alice Laborde, 16, Marksville H. S., Marksville, La., "Investigating Wave Phenomena"; Nancy Williamson, 16, Bryan H. S., Bryan, Ohio, "Blood Typing Serum by Hemagglutination in Seed Extracts"; Katharine Beard, 17, Selinsgrove Area Joint H. S., Selinsgrove, Pa., "Light and Temperature Effects on the Aliencolae Phase of *Aphis fabae*"; David Gibbs, 15, Garfield H. S., Terre Haute, Ind., "Antibacterial Characteristics of Fresh Water and Marine Algae"; Gregory Wiseman, 17, Burriss Laboratory School, Muncie, Ind., "A Study of Red Radish Pigment"; Michael Gorman, 18, San Angelo Central H. S., San Angelo, Texas, "Configurations and Relative Intensities of Magnetic Field in the External Galaxies"; Christopher Landrum, 16, Auburn H. S., Auburn, Ala., "The Potential Use of Heart Cells Cultured *in vitro* in Heart Research"; Perry Cofield Jr., 15, Nathan Bedford Forrest H. S., Jacksonville, Fla., "School Plant Design"; Waldean Schulz, 17, Roy J. Wasson H. S., Colorado Springs, Colo., "Dynamics of the Boomerang"; Amory Bloch Lovins, 15, Amherst Regional H. S., Amherst, Mass., "Research in Differential Geometry and Topology"; Takashi Matsuda, 18, Funabashi Prefectural H. S., Funabashi City, Chiba Prefecture, Japan, "Study of Group Habit of Medaka (A Japanese Fresh Water Fish)."

Fourth Awards

Fourth Awards and \$25 Wishes were given to: Michael Archer, 18, Central H. S., Pine Plains, N. Y.; Frederick Aronson, 17, Pascack Valley Regional H. S., Hillsdale, N. J.; Murray Aspden, 20, Nelson H. S., Burlington, Ontario, Canada; James Baker, 18, Yorktown H. S., Arlington, Va.; John Barrett, 18, Muskogee Central H. S., Muskogee, Okla.; Terry Beard, 17, Arvin H. S., Arvin, Calif.; Robert Bell, 17, Edgewater H. S., Orlando, Fla.; Jo Lynne Birkhead, 17, Harding H. S., Oklahoma City, Okla.; Edward Bolton, 18, West Plains H. S., West Plains, Mo.; Bruce Bowman, 18, Pennsbury H. S., Yardley, Pa.; Robert Bradbury, 17, Ralph C. Mahar Regional H. S., Orange, Mass.; Anders Brahme, 18, Bromma Gymnasium, Bromma, Sweden; Robert Brock, 16, Arlington Heights H. S., Fort Worth, Texas; John Burger, 17, Emporia Sr. H. S., Emporia, Kans.; Linda Bush, 16, Missoula County H. S., Missoula, Mont.; Bruce Byrne, 17, Oliver P. Morton H. S., Hammond, Ind.; Daniel Cable, 18, West Lafayette Sr. H. S., West Lafayette, Ind.; Priscilla Yuk Chi

(Continued on p. 331)

GENERAL SCIENCE

Health Awards Winners

Students showing unusual ability in dental, medical, pharmaceutical and veterinary sciences were awarded special honors at a Health Awards banquet as part of NSF-I program.

► EXCEPTIONAL ability demonstrated by high school scientists in dental, medical, pharmaceutical and veterinary science earned recognition in Albuquerque, N. Mex., at the Health Awards banquet held as part of the program of the 14th National Science Fair-International, conducted by SCIENCE SERVICE.

Winners of these special honors, chosen from the 411 finalists representing 219 affiliated fairs, were selected by boards of judges from the American Dental Association, the American Medical Association, the American Pharmaceutical Association and the American Veterinary Medical Association.

The American Dental Association Certificates of Superior Achievement were presented to Ruby Joyce Burriss, 17, Greenville Sr. H. S., Greenville, S. C., for "Comparative Dental Anatomy" and to Robert William Fauvelle Jr., 17, Corsicana H. S., Corsicana, Texas, for "Comparative Evaluations of the Toxicities of Anesthetics." These winners will be the guests of the ADA at its annual meeting.

Certificates of Meritorious Achievement and \$50 for scientific equipment were awarded to Carol Jean Mace, 15, Winner H. S., Winner, S. Dak., for "This Is Your Mouth—A Report on a Survey of Winner, South Dakota, Grade School Children's Teeth" and to Harold Edward Fox, 18, Poughkeepsie H. S., Poughkeepsie, N. Y., for "Kinins."

Top American Medical Association citations and plaques were presented to Debo-

rah Chase, 17, Bronx High School of Science, New York, N. Y., for "Findings on the Simultaneous Production by Cells of an Anti-Viral Agent and a Halo-Producing Factor in Response to Inactivated Viruses" and to Edward Joseph Duffy, 18, Stranahan Sr. H. S., Fort Lauderdale, Fla., for "Gaseous Cause of the Phenomenon Termed 'Nitrogen Narcosis' and the Effects of Traumatic Aero Embolism." These winners will be the guests of the AMA at its annual meeting.

AMA Honorable Mention citations and plaques were given to Rhea Louise Keller, 17, New Haven H. S., New Haven, Ind., for "Subcutaneous Induction of Malignant Melanoma in the Syrian Hamster with Cell-Free Extracts" and to John James Stevenson, 17, Stephen F. Austin H. S., El Paso, Texas, for "Genetics of the *Bacterium pseudomonas*."

The American Pharmaceutical Association First Award was presented to Francis Xavier Smith, 17, Wakefield H. S., Wakefield, Mass., for "Organic Derivatives of Antimonyl Catechol." He received a plaque and his choice of a trip to the annual meeting of the APHA or a cash award to further his scientific education.

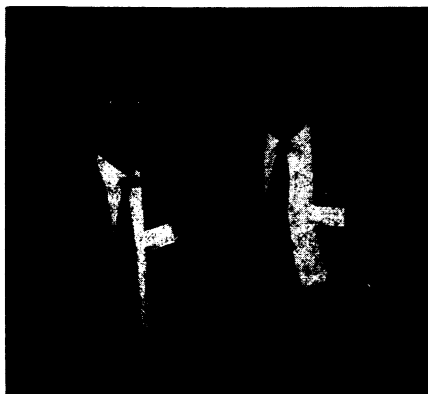
The second APHA award, a plaque, was given to John McLean Shearman, 15, Lovington H. S., Lovington, N. Mex., for "Space Age Hormone—Erythropoietin."

The American Veterinary Medical Association citation plaque and an invitation to the annual meeting of the Association were presented to James Lee Ash Jr., 18, Bryan Adams H. S., Dallas, Texas, for "Effects of Cooling on Radiation Damage to Living Cells." One of James' parents or his teacher also will receive an all-expense-paid trip to the meeting. Henry Harris Caddell, 18, Decatur H. S., Decatur, Ala., was named AVMA alternate for "Photoreactivation of Newcastle Disease Virus."

Presentations of the Awards were made for the American Dental Association by Gerald D. Timmons, D.D.S., president of the Association and dean of Temple University School of Dentistry; for the American Medical Association by George M. Fister, M.D., president of the AMA; for the American Pharmaceutical Association by Troy C. Daniels, Ph.D., dean of pharmacy at the University of California; and for the American Veterinary Medical Association by Dan J. Anderson, D.V.M., president of the AVMA.

Announcement of the awards was followed by a Health Awards dance for the finalists and members of the Official Party, given at the New Mexico Union Ballroom by the professional associations.

• Science News Letter, 83:326 May 25, 1963



FROM ABROAD—Among those traveling the farthest to attend the National Science Fair-International were Takao Mashimo, Education Section, *Yomiuri Shimbun*, Tokyo, Japan, and Dr. Sigvard Strandh, Museum of Science and Industry, Stockholm, Sweden, representing the organizations sponsoring the finalists from their countries.