GENERAL SCIENCE

# Fairs Will Break Records

A THOUSAND students, educators, scientists and press representatives will attend the National Science Fair-International at Indianapolis, May 11-14. Many records will be broken.

Finalists and their escorts from about 200 large regional and area science fairs in this country and abroad will be arriving by plane, train, bus and private car on Tuesday and Wednesday, May 10 and 11. The Fieldhouse at Butler University will reverberate with the sounds of some 370 exhibits being unpacked and set up in time for official judging Wednesday afternoon and evening. More than 150 scientists will form 15 committees to judge the finalists' projects for some 150 awards.

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About 60,000 visitors are expected to study and enjoy the exhibits Thursday and Friday. Many schools and communities plan to send bus-loads of students, some of them from considerable distances.

The finalists and the adults accompanying them will choose among 14 specially arranged tours of scientific installations and organizations in the Indianapolis area. Designed to give the student-scientists a

unique opportunity to see science-in-action and to meet and talk with professional scientists, engineers and technologists, the tours have been scheduled for Wednesday, Thursday and Friday at Butler University, Indiana University Medical Center, Eli Lilly and Company, Pitman-Moore Company, Diamond Chain Company, Link Belt Company, P. R. Mallory Company, Western Electric Company, Indiana Bell Telephone Company, Reilly Tar and Chemical Corporation, Naval Avionic Facility, Allison Division of General Motors, Linde Company (Division of Union Carbide), and Rock Island Refining Corporation. For those staying over until Saturday, a trip has been arranged to the Indianapolis Speedway to see the qualifying runs for the annual Memorial Day classic.

Thursday evening, May 12, special Health Awards will be made at a banquet where the awards will be announced by scientists judging for the American Medical Association, the American Dental Association, the American Veterinary Medical Association and the American Pharmaceutical Association

GAS IN THE GALAXY—Dr. Guido Munch, of Mt. Wilson and Palomar Observatories, observed that hydrogen gas clouds moved outward from the Andromeda galaxy's center as shown by the black arrows. The gas seems to move along the spiral arms, loop out along the lines of magnetic force and turn back toward the center as shown by the white arrows.

The Fair will climax on Friday night, May 13, with the announcement of this year's National Science Fair-International awards at a banquet where Dr. Paul A. Siple, Scientific Adviser, Army Research Office, will be the principal speaker. Awards also will be announced by the U.S. Navy, U.S. Army, U.S. Air Force and Air Force Association, American Chemical Society, Society of American Bacteriologists, Indiana Heart Association, and Indiana Pest Control Operators Association.

#### Animal Care at the Fair

Special care will be provided for live animals, if any are included in the exhibits of the finalists.

Professional veterinarians, members of the Central Indiana Veterinary Medical Association, have volunteered to care for animals during the periods when finalists are away from their exhibits. The veterinarians also will be available for expert consultation and advice.

### **Indianapolis Committee**

The Indianapolis Committee responsible for the extensive preparations being made at the host city of the 11th National Science Fair-International is made up of representatives of leading educational, professional and industrial organizations of the area. The Honorable Crawford Parker, Lt. Gov. of Indiana, is honorary chairman of the Committee and Dr. Karl L. Kaufman, Dean of the College of Pharmacy of Butler University, is general chairman.

### **News From the Fairs**

Reports show that the fairs are breaking all past records. The quality of the science (Continued on p. 271)

ASTRONOMY

## Andromeda Clouds Move Like Those in Milky Way

THE WAY in which gas clouds move from the center of a spiral galaxy, such as the Milky Way in which our sun is located, is now better understood by astronomers.

Dr. Guido Munch of Mt. Wilson and Palomar Observatories, Pasadena, Calif., reported observing huge clumpy clouds of gas moving outward at about 150,000 miles an hour from the center of the Andromeda galaxy. The Andromeda is a spiral galaxy about 2,000,000 light years away and a "nearby" galactic neighbor. A light year is the distance light travels in a year, about six trillion miles.

The observations were made on photographs taken with the 200-inch telescope at Mt. Palomar. The cloud movements observed in the Andromeda galaxy are similar to those detected near the center of the Milky Way by radio telescopes. Direct observation of the Milky Way center cannot be made from earth because black clouds of gas and inter-stellar dust lie between us and the center and obscure the view.

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