good community library services should not be readily accessible to the students at the school; (iii) the school should have a library and employ a school librarian.

The principals of public and private high schools or preparatory schools interested in receiving additional information and application blanks are requested to write immediately to Dr. Hilary J. Deason, American Association for the Advancement of Science, 1515 Massachusetts Ave., NW, Washington 5, D.C. The final date for the receipt of formal applications for the 1957–58 program is *15 May*. Priority of receipt of application will be a factor in school selection.

## Thai Dam Dedicated

Thailand's large new irrigation and navigation dam near Chainat, some 100 miles north of Bangkok, was officially dedicated by King Phumiphon and Premier Pibulsonggram on 7 Feb. An $18-million loan from the International Bank for Reconstruction and Development, a United Nations special agency, helped toward the total cost of $58 million, and the U.N. Economic Commission for Asia and the Far East provided technical aid. The Chainat dam will insure a controlled water supply for a rice-growing area the size of Northern Ireland, introduce double-cropping, add some 500,000 tons a year to Thailand's rice exports, and make possible year-round navigation on the central course of the Chao Phya River.

## Blakeslee Awards

Entries for the American Heart Association's Howard W. Blakeslee awards for outstanding reporting in the field of heart and blood vessel diseases must be submitted *by 1 May*. The Awards Committee will make its selections from among newspaper and magazine articles, books, radio and television programs, and films published or produced between 1 Mar. 1956 and 28 Feb. 1957.

This is the fifth in a series of Blakeslee awards, each of which carries an honorarium of $500. The number of winners to be selected this year will be determined by the judges. Presentation will be made at a meeting of the American Heart Association to be held in the fall. Entry blanks and rules folders may be obtained from the Association, 44 E. 23 St., New York 10, N.Y.

The Blakeslee awards honor "individuals whose creative efforts in any medium of mass communication are judged to have contributed most to public understanding of progress in research, and in the prevention, care and treatment of heart and circulatory disease." The rules further state that "entries will be judged on the ability of the entrant to project a positive and hopeful viewpoint toward problems of the heart and circulation."

## Borazon

The General Electric Company recently announced a new synthetic substance that compares with the diamond in hardness. The substance, borazon, is a boron-nitrogen compound that is more resistant to heat than the diamond is, being able to withstand temperatures of more than 3500°F. The diamond burns up at 1600°F. Borazon was produced by applying pressures of 1 million pounds per square inch and temperatures of 3000°F. Under these conditions the boron-nitrogen compound changes its crystalline form to that of a cube and is therefore called cubic boron nitride. Robert H. Wentworth of the General Electric Research Laboratory in Schenectady, N.Y., discovered Borazon.

## TV in Schools

Alexander J. Stoddard, former superintendent of schools in Philadelphia and Los Angeles, urged that all American public schools be equipped with closed-circuit television in order to raise the quality of instruction, overcome the critical shortage of teachers, and provide the necessary funds for substantial increases in teacher salaries, in a report, *Schools for Tomorrow,* published by the Fund for the Advancement of Education. If this were done and an appropriate educational program instituted it would, according to Stoddard, result in a saving of 100,000 teaching positions and more than $500 million in teaching salaries. Stoddard said that no elementary, junior, or senior high school should be built without one or more television studios and closed-circuit apparatus to all parts of the building.

Additional copies of *Schools for Tomorrow* may be obtained without charge from the offices of the Fund, 655 Madison Avenue, New York 21, N.Y.

## Ferromagnetic Substances

Ever since the beginning of the century, when Heusler discovered that alloys of copper and manganese, with an addition of aluminum, become ferromagnetics (the Heusler alloys), the preparation of artificially ferromagnetic substances has been of interest both experimentally and theoretically. Recently Raub *et al.* have investigated the magnetic properties of gold-manganese alloys (*Z. Metallkunde* **57**, 9, 1956; *Umschau* **56**, 538, 1956).

Pure gold is diamagnetic—its magnetization at small fields is opposite to the direction of the field. Metallic manganese is paramagnetic (almost temperature independent) and has a lattice constant of 2.58 A, but MnAs and MnSb, with lattice constants 2.85 and 2.89, are ferromagnetic. It seems, therefore, that manganese leads to ferromagnetic material when the distance between the manganese atoms is increased; this also appears to be the case with some of the manganese-gold alloys. It is possible to detect in the gold-manganese system an alloy that is 15 to 23 percent manganese, or approximately the composition of $Au_4Mn$, which is ferromagnetic.

There exists another phase, AuMn. This is antiferromagnetic; the neighboring domains are magnetized in opposite directions (as one can show directly by neutron diffraction). However, there is still another phase, $Au_2Mn$, and this seems to indicate that the system consists of a super position of ferromagnetic and antiferromagnetic domains. In the other phases of the manganese-gold system there are mixed crystals with a temperature-dependent paramagnetism and a temperature-independent paramagnetism in the crystals of the type $AuMn_3$.

It is therefore possible in one and the same material, depending on the composition, to produce almost all the various types of magnetism that are known. —K. L.-H.

## Edison Children's Book Award

The Thomas Alva Edison Foundation presented its children's book awards for 1956 last month at the National Edison Birthday Celebration dinner, held by the Edison Foundation at the Waldorf-Astoria in New York in honor of the 110th anniversary of Thomas Alva Edison's birth. The occasion marked the inauguration of National Science Youth Day on 11 Feb., henceforth to be an annual event commemorating Edison's birth for the purpose of stimulating a greater interest in science and scientific careers.

The children's book awards are part of the Edison Foundation National Mass Media Awards Program, established in cooperation with 62 national organizations, to encourage mass media productions that (i) interest boys and girls in science, in view of the serious shortage of scientific manpower; (ii) make meaningful the values of the American tradition; and (iii) present ideals and heroes worthy of emulation by children. The $250 award for the best children's science book (for younger children) went to Roy A. Gallant, author, and Lowell