cils, either singly or in regional groups, the duty of securing adequate facilities for the diagnosis and treatment of persons suffering, or suspected to be suffering, from cancer. It is estimated that at present only one case in four which might hopefully be treated by modern methods is so treated.

These major local authorities will be required to submit their arrangements for the minister's approval within a reasonable time. Before doing so they will consult the Radium Commission and representatives of the voluntary hospitals and the medical practitioners in each locality. It is proposed to have diagnostic centers at which expert clinical advice on a team basis will be available to all. In general these centers will be in the large towns, and patients will come to them from the surrounding areas. Facilities for treatment will be provided in voluntary hospitals, whose services it is hoped to utilize to the utmost, or in hospitals under the control of local authorities. The government intends to bring the most modern methods of treatment, whether by surgery, radium or deep x-rays —alone or in combination—within the reach of every sufferer. This will mean the provision of additional facilities for treatment at appropriate local centers, both by developing existing centers and providing new ones.

It is estimated that when the service is in full operation the total additional expenditure will amount to about £600,000 a year for England and Wales and £100,000 for Scotland. In meeting this expenditure local authorities will be assisted by exchequer grants which will be approximately equivalent to 50 per cent. of the additional cost incurred. But the grant will be made according to the "weighted population" formula, and the 50 per cent. will be scaled up or down according to the needs of the area. In some of the poorest areas the exchequer grant will amount to 80 per cent. It will probably take four or five years before the cost of the service reaches £700,000 a year. At first there may be some scarcity of the skilled workers needed.

The bill enables the Minister to lend up to £500,000 to the National Radium Trust for the purchase of radium and other radio-active substances and of equipment for radio-therapeutic treatment. The trust has already arranged an option for a substantial purchase of radium from Canada at a fixed price over the next five years. The bill will prohibit the dissemination of advertisements for "cancer cures" to the lay public.

COMMITTEE OF THE BRITISH ASSOCIATION ON THE SOCIAL RELATIONS OF SCIENCE

As has been stated in SCIENCE, at the recent meeting in Cambridge of the British Association for the Advancement of Science, there was formed a committee on the Division for the Social and International Relations of Science. The committee, under the chairmanship of Sir Richard Gregory, includes the president and general officers of the association *ex officio* and

Sir Daniel Hall, Sir Frederick Gowland Hopkins, Sir John Russell and Lord Stamp (*vice-chairmen*), Professor F. C. Bartlett, Professor J. D. Bernal, Professor P. M. S. Blackett, Mr. Ritchie Calder, Mr. A. M. Carr-Saunders, Professor S. Chapman, Dr. C. H. Desch, Professor A. C. G. Egerton, Professor H. J. Fleure, Mr. E. W. Gilbert, Professor N. F. Hall, Mr. R. F. Harrod, Professor A. V. Hill, Sir Clement Hindley, Professor L. Hogben, Dr. L. E. C. Hughes, Dr. J. S. Huxley, Mr. D. Caradog Jones, Professor H. Levy, Dr. C. S. Myers, Mr. Max Nicholson, Sir John Orr, Professor J. C. Philip, Professor J. G. Smith, Professor R. G. Stapledon, Professor F. J. M. Stratton, Professor F. E. Weiss, Mr. H. G. Wells, Mr. J. S. Wilson and Dr. S. Zuckerman.

The London *Times* states that a circular has been prepared for issue to institutions at home and abroad, indicating the main purposes of the division as "the objective study of the effects of advances in science on communities, and reciprocally the effects of social conditions upon the progress of science; and the encouragement of the application of science to promote the well-being of society." The committee is empowered to arrange meetings of the division, to coordinate work dealing with the social relations of science, both at home and abroad, to be prepared to act in a consultative capacity and to supply information to organizations, individuals and the public, to initiate and carry out inquiries and research and to secure their publication.

Two of the most important functions of the division will be to coordinate the large amount of work which has already been done or undertaken by numerous existing organizations, and to make the best use of the association's platform to bring the results of such work before the public. It is hoped to cooperate with the International Council of Scientific Unions, which has already set up a Committee on Science and its Social Relations with a view to preparing a report of world-wide scope.

BIOLOGICAL ABSTRACTS

A RECENT issue of SCIENCE[1] contained the announcement of the 1939 publication plan for *Biological Abstracts*. Under this plan there is to be a breakdown into five parts according to subject-matter, ranging in cost from $4.00 to $9.00, with $25.00 the charge for all parts brought under one cover.

During the next year, as during the current one, it is hoped that societies will continue their contribution of $2.00 a member toward the support of *Biological Abstracts*. It is highly desirable that this support be given during the transition period to the new plan, which has won well-nigh universal approval. For the present year five societies took such action, while sev-

[1] SCIENCE, 88: 294, 1938.

eral others approved a request for voluntary pledges by their membership. All such contributions will be counted toward the subscription price of a section or the total edition, and no contributor is expected to make more than one such donation even though a member of more than one contributing society.

For the year 1938 such contributors have the option of either receiving the index to volume 12 or of deducting $2.00 from their personal subscription to that volume (provided their institution now subscribes). The same privilege is accorded to the contributors of past years; that is to say, a 1936 contributor, for example, can have his contribution applied to the purchase of volume 10.

Now that 1938 nears an end, it is desirable that each contributor inform the Business Manager of *Biological Abstracts* at the University of Pennsylvania what option he selects.

The Board of Trustees wishes to express its appreciation to the members of the five societies which have voted contributions this year:

American Physiological Society
American Society of Naturalists
American Society of Zoologists
Ecological Society of America
Genetics Society of America

as well as to those individuals of other societies who made a voluntary contribution or outright donation.

The Board of Trustees of *Biological Abstracts* consists of G. S. Avery, Jr., H. P. Barss, A. F. Blakeslee, P. R. Burkholder, A. J. Carlson, A. B. Dawson, H. B. Goodrich, A. P. Hitchens, D. D. Irish, M. L. Raney and G. W. Hunter, III, *President*.

INTERNATIONAL CONTEST OF THE SCIENTIFIC APPARATUS MAKERS OF AMERICA

ENGINEERS representing all industries, from every section of the United States and three foreign countries, sent in entries to the First Instrumentation Contest sponsored by the Industrial Instruments Section of the Scientific Apparatus Makers of America and conducted by Richard Rimbach, publisher of *Instruments* (the magazine of measurement and control). The contest closed on November 15 and the judging was held on December 6 at the Hotel Commodore, New York City.

Prizes were awarded as follows:

First Prize $200.—F. K. Vial, vice-president in charge of research, Association of Manufacturers of Chilled Car Wheels, Chicago, "Automatic CO_2 Compensator for Cupola Control."

Second Prize $100.—R. K. Hellmann, electrical engineer, Transatlantic Research, Inc., New York City, "An Audio Frequency Spectrometer."

Third Prize $50.—Wilton E. Stackhouse, technician, United Gas Improvement Company, Philadelphia, "A Hydrogen Sulphide Recorder."

Fourth Prizes $25 each.—George B. Bailey, president, Thermal Engineering Company, Boston, "Automatic Control Applied to the Diesel Engine"; H. A. Kleinman, engineer, United Power Manufacturing Company, Moline, "Application of a Multi-Pointer Gage for Speed Measurement"; M. G. Mastin, chemical engineer, Westvaco Chlorine Products Corporation, South Charleston, "A Sensitive Method of Flow Control"; Walter E. Smith, technologist, C. Brewer and Company, Ltd., Honolulu, "Sugar Boiling by Instrument Control."

Fifth Prizes $10 each.—Sherman Chase, steam engineer, Carnegie-Illinois Steel Corporation, South Chicago, "Relative Volumetric Gas Analysis by Cascaded Absorption and Oxidation Recorded by a Pressure Recorder"; Harry C. Gray, stress analyst, Wright Aeronautical Corporation, Paterson, N. J., "Sound Frequency Measurement"; G. J. Gross, transmission engineer, Pennsylvania Water and Power Company, Baltimore, "Ground Megger Signal Generator in Locating Buried Conductors"; Wm. B. Hess, test engineer, Safe Harbor Water Power Corporation, Conestoga, Pa., "The Steam Engine Indicator Differential Pressure Gage"; Charles Wasserman, technological assistant, Consolidated Gas, Electric Light and Power Company, Baltimore, "An Unusual Application of a General Electric Torque Balance Watt-Telemeter."

GRANTS-IN-AID FOR STUDIES IN SCIENCE INSTRUCTION

THE second meeting of the Committee for the Improvement of Science in General Education[1] of the American Association for the Advancement of Science was held in Chicago on December 3 and 4. A partial statement of the agenda upon which the committee worked will appear later. One of its responsibilities is assuming proportions which seem to warrant this separate statement.

It will be recalled that among other things the committee was charged with the following task. "To obtain and to use financial support for such work in the sciences as gives promise of being effective in improving the teaching of science in general education." At the Chicago meeting the committee considered the reception and preliminary evaluation of experimental projects on teaching of the sciences at college and university level. In all such cases the appropriations requested are likely to exceed the funds that are available for such purposes, a situation which will evidently develop in this case also. Nevertheless, the committee invites correspondence from teachers of science who have teaching experiments under way or seriously con-

[1] SCIENCE, 87: 454, 1938.