site with divisions designated as the general hospital, the women's and children's hospital and the psychiatric hospital.

The center is composed of a group of eleven connected buildings, rising in its highest part twenty-seven stories and covering six and a quarter acres. The interior floor space of forty-five acres is traversed by five miles of corridors.

Above the administrative offices on the first floor of the central building are, in order, eight floors of wards, two of operating rooms and five of rooms for private patients, with the remainder given over to staff quarters.

The largest of the wards accommodate sixteen beds. They are designed after those in the Royal Hospital at Copenhagen and represent a virtually new departure in this country. The hospital is provided with glass partitions between beds, the most modern type of diffused lighting, adjoining solaria and bedside connections to a central electrocardiograph, the most advanced type of pneumatic communication system, air filtering and humidifying devices and ventilators.

On Seventieth Street to the north is a home for 500 nurses, the power plant, the laundry, shops, quarters for servants and employees and a garage for 250 cars.

The New York Hospital, which has now vacated its old home in West Sixteenth Street, was founded in 1771. A bequest to that institution of $18,632,176 by the late Payne Whitney, who died in 1927, was largely responsible for the new center, which had been sponsored by Mr. Whitney. Other large contributions were those of $2,000,000 each from J. P. Morgan, the Laura Spelman Rockefeller Memorial and jointly from the late George F. Baker and his son.

SCIENTIFIC NOTES AND NEWS

THE one hundredth anniversary of the birth of Wilhelm Wundt will be celebrated in the Leipzig laboratory of psychology in October. Professor Wundt was born in Baden on August 16, 1832. He became professor of philosophy at Leipzig in 1875 and founded in 1879 the first psychological laboratory.

DR. IVAN PAVLOV, professor of physiology at Leningrad, who celebrates his eighty-third birthday on September 14, presented papers at the International Congress of Psychology recently held at Copenhagen and at the International Congress of Physiology recently held at Rome.

DR. ROBERT A. MILLIKAN, of the California Institute of Technology, left Pasadena on September 1 for an expedition to conduct measurements on the cosmic rays as close to the north magnetic pole as transportation facilities permit. The Royal Canadian Air Corps will furnish planes. It is expected that later Dr. Millikan will continue his work south through the United States as far as Texas.

DR. ARTHUR H. COMPTON, of the University of Chicago, has been making measurements on the cosmic rays 100 miles north from the Arctic circle and 350 miles from the magnetic pole. Dr. Compton expects to return to Fort Churchill, Manitoba, on September 10 or 12.

DR. HERMAN SCHNEIDER, who recently resigned from the presidency of the University of Cincinnati, has been awarded a prize of $500 for "outstanding achievement in education" by the Cincinnati Institute of Fine Arts. Dr. Schneider was dean of the college of engineering of the university.

THE title of professor emeritus has been conferred on Dr. Robert MacDougall on his retirement from the chair of analytical psychology at New York University, which he has held for thirty-one years.

DR. OTTO HÖLDER, professor of mathematics at Leipzig, celebrated the fiftieth anniversary of his doctorate on August 3.

THE freedom of the city of Vienna has been conferred on Dr. Hans Horst Meyer, formerly professor of pharmacology in the university.

THE municipal council of Rouen has decided to call one of its streets after Dr. Charles Nicolle, a native of the city, who was recently appointed professor of medicine at the Collège de France.

THE University of St. Andrews has conferred the doctorate of laws on Sir James G. Frazer, author of "The Golden Bough," and on Dr. L. R. Sutherland, emeritus professor of pathology in the university.

ROBERT W. MORRISON, of the University of Tennessee, has been elected associate professor of pharmacology at the University of South Carolina.

PROFESSOR ALEXANDER GALLOWAY, of the department of anatomy, University of Saskatchewan School of Medicine, Saskatoon, has been appointed professor of anatomy at the University of Witwatersrand, Johannesburg, South Africa.

THE following appointments to University of London readerships are reported in *Nature:* Experimental pathology, Lister Institute of Preventive Medicine, Dr. E. W. Hurst, formerly pathologist to the Millbank Research Fund at the Lister Institute; mathematics, Imperial College—Royal College of Science, Dr. W. H. McCrea, lecturer in mathematics in the University of Edinburgh; pathological chemistry, the

Cancer Hospital, Dr. J. W. Cook, research chemist in the Research Institute of the Cancer Hospital.

AT a meeting of the board of the British National Institute for Research in Dairying, Reading, Professor H. D. Kay was appointed director of the institute in succession to the late Professor Stenhouse Williams. Dr. Kay, who is resigning the professorship of biochemistry in the University of Toronto in order to take up the appointment at Reading, has been engaged in research work in biochemistry at various times in the Universities of Cambridge, London, Manchester and Toronto.

THE British Medical Research Council has appointed Ernest Bevin, Dr. C. G. Douglas and W. S. Morrison, M.P., to be members of the Industrial Health Research Board in succession to Arthur Pugh, Professor E. P. Cathcart and Major A. G. Church, who retire on September 30.

T. R. READ, assistant director of extension at the University of Arkansas, was elected president of the Southwest Soil and Water Conservation Conference which was recently held at the university.

WILLIAM W. WINSHIP was recently elected chairman of the New York section of the Electrochemical Society.

CURTIS P. CLAUSEN, of the Bureau of Entomology, who has been in charge of research work on parasites of the citrus black fly at Kuala Lumpur, Federated Malay States, recently was transferred from the field to the departmental service. In the new assignment he is coordinating the work of the divisions of the bureau and of cooperating states concerned with the importation and use of beneficial insects.

DR. FRED SOPER, director of the campaign of the Rockefeller Foundation for the eradication of hookworm in Paraguay, will cooperate under the auspices of the foundation with the Argentine government in efforts to bar from Argentine territory the yellow fever epidemic in the Santa Cruz district of Bolivia.

DR. ALBERT ANDRÉ will leave New York for Tibet in the autumn with six scientific assistants. He proposes to chart the course of the Brahmaputra River through the Great Gorges of the Himalayas.

DR. F. SASS, chief engineer for the German General Electric Company, an authority on Diesel engines, is now visiting the United States.

DR. EARLE R. HEDRICK, professor of mathematics and chairman of the department of mathematics at the University of California at Los Angeles, has returned to Los Angeles following the completion of a survey of mathematics in the colleges and universities of the North Central States. Dr. Hedrick was chairman of a committee appointed to complete a survey and report the findings of approximately four hundred schools of higher education comprising the North Central Association. The field of this committee was confined to a study of mathematics as a specimen subject and extended to a survey of materials used, and the teaching of mathematics in the schools of the association.

THE British Medical Research Council announces that, on behalf of the Rockefeller Foundation it has made the following awards of traveling fellowships for the academic year 1932–33: Colin Panton Beattie, bacteriology department, Edinburgh University; William Donald Wykeham Brooks, St. Mary's Hospital, London; Eleanor Mildred Creak, Maudsley Hospital, London; Ian George Wilson Hill, Royal Infirmary, Edinburgh; William Arthur Mackey, department of surgery, Glasgow University; David James MacMyn, King's College Hospital, London; John Chassar Moir, University College Hospital, London; Dr. Brooks and Mr. MacMyn have been appointed on modified conditions while receiving emoluments from other sources. These fellowships are awarded to graduates who have had some training in research work either in the primary sciences of medicine or in clinical medicine or surgery, and who are likely to profit by a period of work at a chosen center in America or, in special cases, in Europe, before taking up positions for higher teaching or research in the British Isles.

WE learn from *The Geographical Journal,* London, that at the instance of the Secretary of State for the Colonies the Royal Geographical Society has arranged to house the specimen cadastral survey, land registry and land revenue records which were exhibited at the Science Museum last July upon the occasion of the second Conference of Empire Surveyors. This is in execution of the wish expressed by the conference that the exhibits should be retained in some appropriate center in London, as the nucleus of a permanent collection for reference and study. With this object in view it is hoped gradually to supplement the original exhibits and build up a really comprehensive and representative collection gathered from all parts of the world and exemplifying work of this nature carried out under all sorts of conditions and to meet all sorts of needs. It is intended that the collection shall include land laws, regulations and technical instructions, and that as it grows it shall also be kept representative of, and abreast with, progressive advances in cadastral survey and land records in each country. No funds are available for the purpose, and so success in attaining the objects arrived at must depend

upon the systematic cooperation of the survey and land services everywhere, coupled with the very valuable help that those who have been personally concerned with the conduct of such work in various parts of the world may be able and willing to give. Sir Ernest Dowson and Mr. V. L. O. Sheppard have jointly undertaken the collection, study and maintenance of the documents. As soon as the millboard covers that are needed to preserve them have been supplied the specimen maps and records will be available for consultation at any time during the society's working hours upon application in the Map Room. But Sir Ernest Dowson and Mr. Sheppard will only be able to visit the Society's House fortnightly or by special arrangement, and will do most of the necessary work in their own homes. Those interested, or in a position to assist, are accordingly requested to communicate with them at their private addresses, which are respectively: Bowyers Field, Wrotham, Kent, and Gordon Lodge, Kemble, near Cirencester, Gloucestershire. Rolls of maps or other bulky parcels should however be sent to them to the care of the society.

Nature states that the Royal Society has issued in one alphabet an author index to its *Proceedings,* Series A and B, from 1905 to 1930, and to the *Philosophical Transactions,* Series A and B, from 1901 to the same year, the entries being arranged chronologically under each heading. A previous index to the *Proceedings* was published in 1913, which covered the period from 1800 (when the series began under the title "Abstracts of Papers printed in the Philosophical Transactions") to the year 1904, so that the author index to this publication is now complete to the year 1930. The only indexes to the *Philosophical Transactions* hitherto available have been author and subject indexes down to the year 1830, but the "Catalogue of Scientific Papers," which includes papers in the *Philosophical Transactions,* may be considered to continue the indexing under authors' names down to the year 1900, whence the new volume completes it to the year 1930. So far as the author index is concerned, therefore, the indexing of the two publications is available for their entire runs. A subject index from 1800 is still lacking, except in so far as the mathematical, mechanical and physical papers for the period 1800–1900 are concerned, since these have been included in the three published subject indexes to the "Catalogue of Scientific Papers," which covers both publications.

IT was planned to bring the question of industrial standardization before the recent Imperial Conference held in Ottawa. C. le Maistre, director of the British Standards Institution, had been appointed adviser to the delegation from Great Britain on British standards. At the last two Imperial Conferences, according to *Nature,* great importance was attached to the development of inter-Empire standardization, and to the preparation of national industrial specifications by national standardizing bodies. In order to fulfill the recommendation of the last Imperial Conference, the British Engineering Standards Association recently widened its scope, and is now known as the British Standards Institution. Since last November, le Maistre has been touring the Dominions in connection with the development of this work.

OWING to the world-wide depression, according to a correspondent of the *Journal* of the American Medical Association, the offer to Japan from the Rockefeller Foundation to the School of Hygiene and Public Health to be built in the near future has been postponed until better economic conditions return. But the candidates for membership who are in America it is believed will continue their studies. The establishment of the school, it is now hoped, will go ahead with funds from the state independently of the receipt of funds from the Rockefeller Foundation.

ACCORDING to the *Journal* of the American Medical Association, a survey to determine the adequacy of facilities and the extent to which provisions are made for the protection of the public health in the care and treatment of leprous persons in Hawaii has been authorized by a joint resolution of Congress. The resolution was based on information furnished by the governor of Hawaii to the effect that there are at the present time 623 patients being cared for at the expense of the territory in its leprosariums. The cost entailed in this care is considered a heavy burden on the "limited resources of the territory." Physicians of the U. S. Public Health Service who will conduct the survey are: Drs. James C. Perry, John W. Kerr and George W. McCoy. They will prepare an estimate of the cost of construction and equipment of a receiving station and hospital, including the purchase of necessary grounds as well as an estimate of the annual cost of maintenance and operation. They will also report on remedial legislation providing for the further control and eradication of the disease in the territory. In 1905, a congressional appropriation provided for the establishment of a hospital station and laboratory of the Public Health and Marine Hospital Service of the United States for the study of the methods of transmission, cause and treatment of leprosy at Kalawao, Island of Molokai. About 640 acres was transferred in perpetuity to the United States by the territory. However, after several years' operation, it was found impracticable for the United States to maintain a separate institution, and through subsequent legislation the land was reconveyed to the territory. Except for a station at Kalihi receiving

hospital, Honolulu, the territory has since then borne the complete expense of caring for leprous persons in its jurisdiction. None of the territory leper patients have been cared for in the leper colony at Carville, La., the establishment of which was provided for by an act of Congress in 1917. The Kalihi station, known as the U. S. Leprosy Investigation Station, is administered by the Public Health Service.

DISCUSSION

SHOULD SCIENTIFIC DISCOVERIES BE PATENTED?

IT is becoming increasingly common for investigators in various fields to apply for patents on materials, processes or apparatus which have resulted from their work. Certainly in most cases this has been done without any desire to obtain personal reward from the sale of patent rights or the income from royalties. Within the last few years there have been established impersonal organizations to hold these patents, such as the Insulin Committee at the University of Toronto and the Wisconsin Alumni Research Foundation. The benefits from such legal control of discoveries have been made available to many investigators in the institutions where such organized control has been provided.

When informal groups of men gather at the various conventions of American scientific investigators, the advisability of the patent method of control is being debated with considerable frequency. Although this is not unusual, it is unfortunate that emotional reactions are beginning to appear in this discussion, and there is present the material out of which serious jealousies are almost certain to appear. No discovery in science is made by an individual unaided by the enormous background of science in general. Consequently, it is debatable whether one man should have credit for the climax of a long series of studies which come to recognized fruition in his hands. The nearly simultaneous discoveries of the same fact are only too frequently disappointing for one of those involved. Just apportionment of credit will remain difficult. Patents may serve to give legal intrenchment to rights which are not permanently and justly tenable. The feelings of many men who are engaged in scientific research are beginning to be aroused on these questions. It is to be hoped that they will not be allowed to reach a point where there is any spoiling of the fine camaraderie which has characterized American laboratories and science meetings.

If an attitude of suspicion and jealousy should develop in this country between the scientific men of our numerous institutions, it would be very apt to lead to the throwing of a cloak of secrecy about all work of interest. It is obvious that this would hamper progress in research and in teaching, as well as in practical applications of science. Certainly no one desires such an outcome of the rivalry in investigation, which is now for the most part a good-natured and open race. When patents are commonly resorted to, both those who do apply for them and those who prefer not to will feel that secrecy is necessary.

Of course there are advantages to the use of the patent. The public is thereby protected against certain ruinous types of exploitation. Assurance can be gained that technical processes are used in dependable ways. Even the publicity may be kept on a satisfactorily high plane. Rapid development of discoveries which are of academic interest may be secured when patent rights assure a commercial producer of protection in the field. And further, the income from the sale may be made to yield to the scientific laboratories that wherewithal for more work which is always a concern of the administrative officers. The financial support of research may become thereby an increasingly secure endowment, growing by geometrical progression.

On the other hand, an example of the danger of grave disadvantages is contained in the possibility that a patent for a "discovery" in such a shifting field as that of internal secretions may be granted when no real advance has been made, but that this patent will serve to place very unfortunate strictures on other men who subsequently do fundamentally important work in the same field. This could well delay the availability in practical medicine of some of the dramatic discoveries of recent years. Patents may be abused as well as be made to protect the interest of the public.

These obvious suggestions are made not to offer an answer to this vexing question, but to stimulate a more public debate on the merits of patenting discoveries. Might not the American Association for the Advancement of Science have a formal presentation of this matter at its next meeting? Perhaps two proponents of the patent scheme might have each a twenty-minute opportunity to present the advantages, with two others opposed to this method using a similar time for the contrary point of view. This could be done with dignity and with freedom from personal bias or emotional twist. The matter is of general importance, justifying the attention of all men in science. The printing of such a discussion would undoubtedly develop further ideas from the minds of the readers of SCIENCE. It might be worth while