On the motion of Dr. Blanford, it was resolved: That the report submitted by the executive committee be received and adopted for presentation to the Regional Bureaus.

The council authorized the distribution of the balance sheet to the several regional bureaus for publication in some recognized periodical in each of the constituent regions, in accordance with the regulation laid down at the Third International Conference.

On the motion of the chairman, it was resolved: That, in view of the success already achieved by the International Catalogue of Scientific Literature, and of its great importance to scientific workers, it is imperative to continue the publication of the catalogue beyond the first five annual issues. That this Resolution be communicated to the Regional Bureaus, requesting them to bring it under the notice of the contracting bodies and to obtain the necessary guarantees for the continuance of the work.

It was resolved: That the executive committee be authorized, in consultation with the Regional Bureaus, to spend a sum not exceeding £100 in making the catalogue known.

On the motion of the chairman it was resolved: That a representative of Russia be added to the executive committee, and that steps be taken to invite countries not yet represented on the Catalogue (Spain, Balkan States and South American Republics, etc.) to establish Regional Bureaus.

It was resolved: That the council accede to an application of the University of Ottawa, Canada, for the replacement of volumes of the catalogue lost in a conflagration which destroyed the whole of the university buildings including the library.

A motion by Professor Korteweg to place copies of the catalogue at a reduced price at the disposal of the regional bureaus for the use of the experts was discussed and withdrawn, the feeling being that, although desirable, the financial position of the catalogue did not yet admit of such a step being taken.

The proposal to extend the scope of the catalogue by the publication of additional series of volumes dealing with such subjects as (a) Medicine and Surgery, (b) Agriculture, Horticulture and Forestry, (c) Technology

(various branches), was discussed, and the opinion expressed that it was desirable that the executive committee should take the matter into further consideration, in order that it may be brought under the notice of the International Convention in July, 1905.

It was resolved: That all alterations proposed in the schedules shall be collected and edited by the central bureau; that the amended schedules, together with the proposals of the bureaus, shall be submitted to the regional bureaus for their opinion; and that the final editing of the schemes to be submitted for the approval of the International Convention be entrusted to a committee of five persons, to be nominated by the executive committee.

SCIENTIFIC NOTES AND NEWS.

The University of Michigan has conferred its doctorate of laws on Dr. F. H. Gerrish, professor of anatomy in Bowdoin Medical College.

The degree of doctor of science has been conferred by Lafayette College on Francis P. Venable, president of the University of North Carolina and formerly professor of chemistry.

The Western University of Pennsylvania, at its commencement held on June 16, conferred the degree of Sc.D. on Mr. Frank Hurlbut Chittenden, assistant entomologist of the United States Department of Agriculture, Washington, D. C.

The University of Dublin has conferred the doctorate of science as follows: J. Dewar, Jacksonian professor of experimental philosophy, Cambridge, and Fullerian professor of chemistry at the Royal Institution; Professor J. H. van't Hoff, Berlin; Professor F. Klein, Göttingen; Major R. Ross, C.B., F.R.G.S., professor of tropical medicine, Liverpool; J. J. H. Teall, F.R.S., director of the Geological Survey of the United Kingdom; W. H. Thompson, King's professor of the institutes of medicine.

Dr. J. T. ROTHROCK has, owing to ill health, resigned the position of forestry commissioner of the state of Pennsylvania. Mr. R. S. Conklin, present deputy commissioner, has been appointed his successor.

Professor V. M. Spalding, of the University of Michigan, has received a grant from the Carnegie Institution for the continuance of an investigation at the Desert Laboratory of the absorption and transpiration of water by the creosote bush and other desert shrubs. He will be located at Tucson, Arizona, during the winter of 1904–5.

The office of Vegetable, Physiological and Pathological Investigations of the Bureau of Plant Industry has arranged with Professor L. R. Jones, of the University of Vermont, to do some special work on the diseases of the potato. Professor Jones has been instructed to obtain all available information in regard to European varieties, and to obtain seed tubers of valuable sorts, especially disease-resistant strains, for testing in various sections of the United States. He has been appointed a temporary special agent of the Bureau of Plant Industry of the Department of Agriculture for this purpose and is now in Europe engaged in the work.

Mr. Thomas Manns, of the North Dakota Agricultural College, has resigned his position as instructor in botany and has accepted a position with the War Department in the Philippines. During the past two years Mr. Mann has been conducting investigations upon soil fungi as affecting the character of the crops upon the rotation plots of the Experiment Station. The results of this work are very promising and the board of trustees have instructed Professor H. L. Bolley of the department of botany to find a young man to continue the work.

Dr. J. W. Lowber, F.R.A.S., of Austin, Texas, has been elected a member of the Belgian Astronomical Society, Brussels.

Professor Henry Landes, head of the department of geology in the Washington State University, who has been absent studying at the University of Chicago during the year, will resume his work in Seattle next September.

Professor Alexander L. Nelson has celebrated the fiftieth anniversary of his professorship of mathematics at Washington and Lee University.

At the alumni dinner of the State University of Iowa, the former students of Professor Samuel Calvin, to the number of over two thousand, united in the commemoration of the completion of his thirtieth year in a professorship at that institution. The recognition took the form of a costly silver loving-cup, designed especially for the purpose of symbolizing the scientific achievements of the recipient. cup is a classic Greek vase sixteen inches in height, and stands on a base of serpentine five inches high. It is adorned with casts taken directly from fossils, with a drainage-map of Iowa, with crossed geological hammers, a microscope, and the more conventional spray of laurel, owl of wisdom and torch of learning, —all in relief. One side bears an appropriate inscription in raised letters. Professor Calvin was elected to the chair of natural history in Iowa's university thirty years ago. The chair has since been subdivided into four distinct departments, Professor Calvin retaining the department of geology. He has been state geologist of Iowa during the last twelve years.

THE Warren Triennial Prize of the value of \$500, in the gift of the Massachusetts General Hospital, has been awarded to Dr. Max Borst, extraordinary professor of pathological anatomy in the University of Würzburg, for a dissertation entitled 'Neue Experimente zur Frage der Regenerationsfähigkeit des Gehirns.'

Dr. N. S. Davis, of Chicago, died on June 16, aged eighty-seven years. Dr. Davis was a voluminous writer on medical subjects and took an important part in the organization of the medical profession. He was, in 1845, chairman of a committee whose report led to the establishment of the American Medical Association, and he was the first editor of its journal.

Mr. Andrew Carnegie has given £1,200 to the Royal Institution, to enable Professor Dewar and Mr. R. A. Hadfield to prosecute their investigation on the physical properties of steel and other alloys at low temperatures; Dr. Frank McClean has given £100 to the research fund of the institution.

It is said that Colonel Gorgas, chief sanitary officer of the Isthmian Canal, estimates

that three hundred special physicians will be required during the progress of the war. These physicians will be in addition to surgeons of the army and navy, and will be selected from those who have recently graduated and completed hospital service.

THERE is wanted an economic geologist and paleontologist in the Mining Bureau at Manila, P. I., the salary of the position being \$2,000. Applicants must satisfy the U. S. Civil Service Board, but should write directly to the Chief of the Mining Bureau, Manila, P. I.

We learn from *Nature* that a meeting of members of the council of the South African Association for the Advancement of Science was held at Johannesburg, on May 19, Mr. T. The chairman reported Reunert presiding. that he had been in communication with the German, French, Austrian and Italian consuls, and was hopeful of the cooperation of these gentlemen in connection with the visit of continental delegates to South Africa with the British Association next year. Dr. Pakes, referring to the impending departure of Mr. Reunert for England, mentioned that he would represent the South African Association at the forthcoming Cambridge meeting of the British Association.

The Institution of Civil Engineers gave a conversazione on June 15 at the institution premises. The guests, who numbered about 1,200, were received by Sir William H. White, the president, and Lady White and the members of the council.

THE Discovery and the Morning have sailed from Lyttleton, New Zealand, for Plymouth.

The British Medical Joural states that a number of French medical men who take an interest in English medicine and surgery propose to visit London next October in order to see something of the hospitals and laboratories. An influential committee has been formed in Paris, and a small organizing committee, of which Dr. Triboulet is president. Among the senior members of the Paris faculty who have expressed their intention of joining the party are Professors Bouchard, Lucas-Championnière, Chauffard, Landouzy, Lermoyez, Marie and Sebileau.

A LETTER from Dr. C. Nordmann to the Revue générale des Sciences, abstracted in Nature, describes a new astrophysical observatory which has just been built near to Tortosa, in Spain, in latitude 40° 48' N. and longitude 1° 47' E. of Paris. The general idea of the work to be prosecuted is to obtain information regarding the relations between solar and terrestrial phenomena. Two magnetic houses have been equipped, the one for absolute measures of terrestrial magnetism, the other for obtaining records of the regular variations in the elements and of the extraordinary disturbances which appear to coincide, in point of time, with solar disturbances. The observatory is also to be furnished with an equatorial for observing sun-spots, an Evershed photo-spectroheliograph, and an instrument for determining the radial velocities of solar prominence eruptions. Another building has been set apart for meteorological observations and the study of atmospheric optics, and seismological observations have also been provided for.

The committee appointed to enquire into the administration of the British Meteorological Council has made its report. We learn from the London Times that among its recommendations are the following: That the registration of the Meteorological Office as a company under the joint stock companies acts should be cancelled; that the company should be wound up, and the office reconstituted as a department under the control of the Board of Agriculture and Fisheries; that the office be placed under the control of a man of science as director of meteorology, appointed after consultation with the Royal Society, but responsible to the Board of Agriculture and Fisheries; that an advisory board be appointed, consisting of the hydrographer to the Admiralty, a representative of the Board of Trade, and one of the Board of Agriculture and Fisheries, and two members nominated by the Royal Society, the functions of the advisory board to be consultative only, the director being responsible to the Board of Agriculture and Fisheries for administration; that a second officer be appointed to act as scientific

assistant to the director: that the fixed Parliamentary grant of £15,300 be transferred to the vote for the Board of Agriculture and Fisheries; and that the post office should make arrangements at the 27 reporting stations in the United Kingdom for the transmission of daily telegraphic reports one hour earlier than the present one of 8:15 to 8:30 A.M., and that storm warnings should, if practicable, have priority over all private messages at all hours. The committee also call attention to the expediency of testing the efficacy of wireless telegraphy in providing advance news of weather in the Atlantic, and urge that no unnecessary delay should take place in organizing this experiment. They also recommend that in future the cost of instruments supplied to his Majesty's ships be borne upon the Navy Votes, except where such instruments are intended for use in research or observation specially called for by the director of meteorology, and they consider that the premises now rented by the council are neither suitable in character nor adequate in space for the present requirements of the office, and that others should be provided wherein the staff might perform their duties under more favorable hygienic conditions, and necessary accommodation for the rapidly growing library might be secured.

UNIVERSITY AND EDUCATIONAL NEWS.

The new laboratory of physics and engineering, given by Mr. William H. Reid, of Chicago, to Washington and Lee University, was dedicated on June 15.

At the recent commencement of the University of Nebraska three men graduated from the Department of Forestry which was established two years ago. These men on the establishment of forestry work in the university were transferred to this department from other departments of science, and thus were able to complete the course in two years. The full course is four years, and the requirements for admission to the freshman class are the same as for other departments of the university.

A DEPARTMENT of medicine with a two-years' course has been added to the curriculum of

the Washington State University. For the present the work will be in charge of Professor Byers, head of the department of chemistry. Dr. C. W. Johnson, assistant professor of pharmacy, has been made dean of the department of pharmacy.

A MEDICAL department will be established next year as part of St. John's College, a catholic institution at Fordham, New York City.

THE Mercers' Company have given a donation of £1,000 to the Institute of Medical Science Fund (University of London), and the Clothworkers' Company have given £300.

Mr. Francis G. Smart, M.A., M.G., of Gonville and Caius College, has founded, in the University of Cambridge, a studentship of £100 a year, tenable two years, for the encouragement of botanical research.

It is announced that work on the buildings for the Harvard Medical School has not progressed as rapidly as had been hoped, and that they will probably not be occupied until the autumn of 1906, instead of 1905, as was originally expected.

At Cornell University, Mr. Carl P. Thomas, a graduate of the class of 1895, has been appointed assistant professor of marine engineering. Drs. James McMahon and John H. Tanner have been promoted to full professorships of mathematics.

Dr. A. N. Cook, who has been professor of chemistry in Morningside College, Sioux City, for the past four years, has been elected professor of chemistry in the State University of South Dakota at Vermillion.

Dr. C. H. Gordon, who has been acting professor of geology in the Washington State University during the past year, has accepted a call to the chair of geology in the New Mexico School of Mines.

MR. HARRY R. FULTON, assistant in biology in the University of Mississippi, has been awarded a fellowship in botany for 1904-5 in the University of Missouri.

Dr. Philip Henry Pye-Smith, M.D., F.R.S., has been reelected vice-chancellor of the University of London, for the year 1904–5.