

graphers of all classes in order to make this exhibition, the first of its kind, a success. All communications should be addressed to Señor Don Salvador Raurich, Calle Gran Via Diagonal, 462, 2°, Barcelona, Spain.

THE MAGNITUDES OF EIGHTY-EIGHT STARS IN COMA BERENICES.—In No. 43 (vol. iv., 7) of the *Mitteilungen der Nikolai-Hauptsternwarte zu Pulkowa* Herr Beljowsky gives the resulting magnitudes obtained from the measures of two plates exposed in March last on the Coma Berenices group. The magnitudes were determined by comparison with stars of the Pleiades group, taken on the same plates between exposures on the Coma Berenices group. Comparing his final magnitudes with those obtained by Pickering, M. Beljowsky finds that there is a distinct connection between the difference Beljowsky-Pickering and the spectral class of the stars concerned; the difference increases from class A (0.38) to class K (0.84), and the increase is probably due to a difference in the scale of photographic magnitudes.

THE NEW BOTANICAL LABORATORIES OF THE UNIVERSITY OF MANCHESTER.

THE new botanical laboratories of the University of Manchester were opened by Dr. D. H. Scott, F.R.S., on Friday last, November 3. The new block of buildings consists of four main floors with two mezzanines, and is planned so as to give adequate accommodation for the various branches of botanical science.

For palaeobotany, the study of which is so closely associated with the name of the late Prof. Williamson, the first professor of botany of the Owens College, a room is set apart on the ground floor, close to the entrance on the south side of the building; while on the north is a well-lighted laboratory for thirty junior students, connected directly with the larger elementary laboratory in the main building, which is capable of seating forty more students. On the first floor is a large research laboratory, opening into the senior laboratory.

The second floor is devoted entirely to the Cryptogamic Department, which owes its endowment to the munificent legacy of the late Prof. Barker. In addition to providing facilities for researches of a purely scientific nature, the Barker Laboratory will be available for inquiries connected with agriculture, such as investigations into diseases of plants caused by fungi and bacteria.

On the third floor the laboratory for plant physiology occupies the gable end of the building, being designed so as to possess both north light for microscope work and south and west light for experiments requiring direct sunlight. Such experiments can be made either in the laboratory itself or in the greenhouses, which occupy the whole extent of the south front of the top floor. The green-

houses are divided so as to have both a hot and moist and also a cooler and drier portion.

The new botanical block is entirely devoted to laboratory accommodation, and does not contain any lecture-rooms or museum galleries. The facilities for botanical work in the University are added to by the experimental grounds and greenhouses on the Behrens Estate, Fallowfield, which supply both the need of economic botany and zoology. Here experiments in plant breeding have been in progress for some time past, as well as investigations on conditions of cultivation as affecting the development or prevention of certain plant diseases, and the testing of varieties of cultivated plants supposed to be immune to disease.



Photo.]

New Botanical Laboratories, University of Manchester.

[E. Vincent Ward.

At the opening ceremony on Friday, November 3, the Vice-Chancellor (Sir Alfred Hopkinson) welcomed the guests, and after referring to the need there had been for securing adequate accommodation for the teaching of botany in the University, and the steps taken by the council of the University to meet the requirements of the growing department, invited Dr. Scott to open the new building. A ceremonial key was presented to Dr. Scott by the architect, Mr. Paul Waterhouse, and, after the door had been unlocked, the building was declared open, and was inspected by the visitors.

Later in the afternoon Dr. Scott delivered a short address to the friends and students of the University, and spoke

in appreciation of the work of the first professor of botany in the Owens College, the late Prof. Williamson. He directed attention to the fact that during the sixty years which had passed since the foundation of the Owens College there had been only two professors of botany there. Williamson was the first, and the second was the present occupant of the chair, Prof. Weiss. Recalling the facts of Dr. Williamson's life, Dr. Scott reminded his audience of the many-sided character of the former professor of botany, and also specified in detail the work done by Williamson. He took a leading part in bringing home to scientific people the importance of those fossil remains which show structure. Fossil plants are preserved in two quite different ways. On one hand we have the more familiar kind of specimens in the form of casts or impressions which show the external form—often very beautiful—or organisation, but not the structure. On the other are specimens, usually very fragmentary, showing little or nothing of external form, but showing the structure, often beautifully preserved. It was upon the latter form of fossils that all Williamson's later work was done. The fine building now completed is a worthy expression of the progress of the study of botany in Manchester, which has now become one of the greatest centres of botanical teaching in the kingdom.

The ceremony concluded with a vote of thanks to Dr. Scott, proposed by Sir Edward Donner and seconded by Prof. Weiss.

PLAGUE IN EAST ANGLIA.

AFTER a period of quiescence lasting for just over a year, plague has again appeared in East Anglia. Between December 12, 1906, and January, 1907, there were several cases of what was supposed to be pneumonia in two adjoining cottages in the parish of Shotley. There were three cases in one house, two of which were fatal, and five cases in the other, of which four were fatal. It is believed now that all these were cases of pneumonic plague. In January, 1910, two persons died at Trimley, exactly opposite Shotley, on the other side of the River Orwell, from a disease now believed to have been plague. In September, 1910, four persons died in two adjoining cottages in the village of Freston, six miles from Shotley. On October 10 last a seaman was admitted to the sick quarters of the Shotley Royal Naval Barracks, Suffolk, and subsequently developed symptoms of pneumonia. His sputum was examined, and plague bacilli were found. Although there is no certain proof of the source of infection, it is believed he caught the plague from a rabbit he skinned, and that in so doing he cut his finger. This event is not altogether unexpected, as it was known some weeks ago that rats in the Samford Hundred—the district enclosed by the Rivers Orwell and Stour—were again plague-infected; and a vigorous campaign against the rats is being pursued. When the epidemic occurred last year competent authorities warned the Local Government Board of the need for concerted and widespread action for the extermination of rats in the infected district and the delimitation of the infected area.

According to the latest report, the authorities in the Samford district are taking every precaution in the way of destroying rats. As the result of the suggestions of the Local Government Board, it is now proposed that rat-catchers shall be employed in a number of parishes. The public will still receive 2d. for every rat killed. Returns of rats killed showed that hundreds were being destroyed in some parishes; in others there were very few to kill. The Local Government Board proposes that concerted action in regard to the plague should be taken by all the neighbouring rural and urban authorities, and it also advises the appointment of a special officer to supervise the destruction of rats. It is to be hoped that, in addition, arrangements will be made for a bacteriological examination of a large proportion of the rats captured, for this procedure is required in order to ascertain the prevalence and area of infection. The rabbits and hares also should be subjected to examination.

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CONGRESS OF THE UNIVERSITIES OF THE EMPIRE (1912).

AT a meeting of the Home Universities Committee of the congress, consisting of the Vice-Chancellors of the universities of the United Kingdom and other representatives, held on Saturday, November 4, the programme of subjects for discussion at the congress in July, 1912, was settled.

The meetings of the congress will be held on July, 2, 3, 4, and 5, on four mornings and two afternoons. There will be, in addition, a business meeting.

The subjects for discussion fall under two heads, and are as follows:—

I.—Universities in their Relation to one another.

- (1) Conditions of entrance to universities and the possibility of equivalence and mutual recognition of entrance tests to degree courses.
- (2) Interchange of university teachers; conditions of interchange.
- (3) Inter-university arrangements for post-graduate and research students.
- (4) Question of division of work and specialisation among universities.
- (5) The establishment of a central university bureau; its constitution and functions.

II.—Universities in their Constitutional Aspects and in their Relation to Teachers, Graduates, and Students.

- (1) The relation of universities to technical and professional education and to education for the public services.
- (2) Provision of courses of study and examinations for other than degree students, including university extension and tutorial class work, and specialised courses both of a general and technical character for students engaged in professional, commercial, and industrial pursuits.
- (3) The representation of teachers and graduates on the governing body of a university.
- (4) Action of universities in relation to the after-careers of their students.
- (5) The position of women in universities.
- (6) The problem of universities in the East in regard to their influence on character and moral ideals.
- (7) Residential facilities, including colleges and hostels.

Upon some of these subjects it is hoped that by cooperation between the universities some action may be possible, e.g. such subjects as the extent to which universities may recognise each other's entrance examinations, facilities for post-graduate students from other universities, interchange of professors, &c. There are other questions upon which most, if not all, of the universities will have taken some action and obtained some experience, such as the relationship of universities to colleges associated or federated with them, the position of women in universities, provision for students other than degree students, &c. Upon these questions what is wanted is a summary of the experience of each university presented in a way that will be useful for comparison and will furnish a body of information of permanent value. Accordingly, in addition to the subjects for discussion, other subjects have been selected upon which each of the fifty-one universities is asked to prepare a memorandum. These memoranda will be printed beforehand and issued to members of the congress.

It has been decided that, in addition to the delegates, of which each university is entitled to appoint not more than four, invitations to be present, with the right to speak at the meetings of the congress, shall be issued to a certain number of selected persons. It has been decided that no resolutions will be submitted at the ordinary meetings of the congress, but a special business meeting, confined to delegates of the universities, will be held to deal with executive business. In addition, associate membership of the congress will be open to all who may desire to join on payment of a fee of 10s. 6d.

BOTANY AT THE BRITISH ASSOCIATION.

TO suit the convenience of members of other sections, the president (Prof. F. E. Weiss) delivered his opening address at twelve noon on Thursday, August 31. The address has already been printed in full in NATURE (September 21, p. 395).

In recent years Section K has frequently shown a