of vertebrate teratology recently studied by him, and Prof. A. B. Macallum, F.R.S., described some new cells with protruding tail-like processes occurring in the mesoglœa of Aurelia and other Medusæ.

The popular evening lecture, which is always an important feature of the Canadian Royal Society's annual meeting, was delivered to a crowded assembly in the large hall of the Normal School by Prof. Ernest Rutherford. The subject was "Recent Results of Researches on Radium." In a graphic manner, the lecturer explained his famous "disintegration" theory, the transformation of chemical elements, the marvellous phenomena of radiant matter, and illustrated his remarks by striking experiments. He aroused much interest by stating that in Canada there were probably more rocks containing radium than in any other territory on the globe, and he had found, by suspending a wire in the open air in Montreal during a shower of rain, that radium collected on the wire. Many brilliant social functions took place during the meetings, including a large garden party by Dr. and Mrs. Saunders at their official residence; dinners given by the president-elect, Dr. S. E. Dawson; luncheons by Sir James Grant, former president; and other entertainments.

THE ROYAL VISIT TO THE UNIVERSITY COLLEGE OF NORTH WALES.

IN last week's NATURE, a short account was given of the visit of the King and Queen to Bangor to lay the foundation stone of the new buildings of the University College of North Wales. A few particulars relating to the origin and work of the college, and some thoughts suggested by speeches made at last week's ceremony, may be of interest as a supplement to the report that has already appeared.

The University College of North Wales was founded in 1884, and is at present located in the buildings of the former Penrhyn Arms Hotel. It has been enlarged by the addition of laboratories and lecture rooms for the faculty of science, which includes departments of agriculture and electrical engineering. The former was the first institution of its kind in Great Britain, and has been adopted as the model of similar agricultural departments started elsewhere. Its operations have been extended by the foundation in 1904 of a school of forestry under the auspices of the Board of Agriculture, one of two in the United Kingdom. The electrical engineering department is maintained by an annual grant from the Drapers' Company. If its resources in the matter of equipment have not been on a lavish scale, the training it has afforded has been of a high character and has probably possessed advantages which an over-elaborate plant might not afford. Still, much apparatus is badly needed before the condition of maximum efficiency can be reached. Another feature is the fisheries department, which has performed useful work in developing the fishing industry of North Wales, an industry which is capable of being greatly developed by the diffusion of practical scientific knowledge in the fishing districts. Although the present notice necessarily deals primarily with the scientific aspect of the work of the college, allusion must be made to the day training department, the courses in secondary education, and the facilities for kindergarten training afforded by the establishment of a preparatory school under the auspices of the college.

The new college will consist, when finished, of two quadrangles. At present it is only intended to erect the arts and administrative buildings, and it is to be hoped that by the time this has been done the building fund will admit of the science buildings being commenced. The library is very inadequately housed, and when we point out that only about 10*l.* a year is available for the purchase of books in such a subject as pure and applied mathematics combined, physics or chemistry, it will be seen that the present college staff is doing good work under difficulties which would not exist in a similar institution in Germany or America.

At the public luncheon, the Right Hon. D. Lloyd George, M.P., gave some interesting statistics showing the liberality and enthusiasm of the people of North Wales in matters relating to education. The contributions for university and technical education are six times, and to secondary education nine times, as high as in England, and the contributions of the town and suburbs of Bangor to the college alone represent the proportional equivalent of a sum which for a town of the size of Liverpool and its suburbs works out to 1,750,000*l.* In regard to the question of Government assistance, Mr. Lloyd George thought that waiting for Governments was like waiting for sunshine, and that the college afforded a grand opportunity for a millionaire to earn gratitude and fame.

But where is Mr. Lloyd George going to find his millionaire? A country which raises a protective tariff against millionaires in the form of death duties is scarcely a promising field. When we take account of the heavy losses North Wales has sustained by the death of a number of its most influential and prominent landowners during the last decade, the progress of the new college buildings will be found to represent a widespread feeling of munificence and loyalty towards the cause of higher national education far in advance of anything that exists in America. But in the race between British and American universities, Great Britain is heavily handicapped, with the result that, in spite of all the efforts we are putting forward, we are rapidly falling further and further behind. The inevitable result is that the responsibilities which the acquisition of wealth entails will be pressed more and more heavily every year on our Governments, and unless they can supply the extra few rays of sunshine we shall be less and less able every year to raise up the intellectual produce necessary to enable us to compete with the foreign producer.

The problem was solved long ago for Germany by her system of State universities. That Germany owes her national prosperity in no small measure to the principle of *Lehrfreiheit*, which has been adopted as the fundamental law governing the relations of the university professors with the State, is a fact which every German citizen knows well. It is no trifling thing to say that there is probably not a single university college in the United Kingdom the council and senate of which are more thoroughly imbued with the spirit of the German ideal than the University College of North Wales. In the large industrial centres of South Wales there exists an unfortunate conflict of rival factions, and it is sad to notice that many people only associate themselves with university education in order to acquire a cheap reputation by belittling the academic element, making unjustified and vexatious attacks on its representatives, and hampering the progress of the nation whose interests they falsely profess to have at heart. We refer in particular to the state of affairs which culminated some years ago in the premature death of the late Principal Viriamu Jones, and has continued to exist ever since. In North Wales the ardent Welsh nationalist, and the scientific worker who believes that "he is the greatest patriot who has the world for his nation," all realise that they are working together for a common cause.

G. H. BRYAN.

THE ALDROVANDI CELEBRATIONS AT BOLOGNA.

IT is not improbable that some of the delegates appointed to represent foreign universities and learned societies at the tercentenary of the death of Ulisse Aldrovandi (1522–1607) were insufficiently acquainted with the works of this great naturalist to appreciate thoroughly the importance of the occasion. The international gathering at Bologna (June 11–13) has been the means of rescuing from partial obscurity the memory of one of the many pioneers in the study of nature which Italy has produced. Bologna, the birthplace of universities and the *alma mater* of not a few students whose names occupy a prominent place in the history of the natural sciences, is an ideal meeting place of the nations to do homage to one of the fathers of scientific investigation. The numerous coats of arms which decorate the walls of the old university buildings bear witness to the hospitality of Bologna to students from all parts of the world, and the celebration which has now been brought to a successful conclusion testifies to the continuance of a spirit of hospitality after the lapse of centuries.

Aldrovandi's works, including several volumes published after his death, are in themselves a striking monument to his prodigious industry and encyclopædic knowledge; his wealth and long life were given up to an attempt to realise his ideal—"nothing is sweeter than to know all things."

The committee appointed under the patronage of the King to carry out the arrangements for the Aldrovandi celebrations had as honorary presidents the Marchese Tanari (Prosindaco del Commune) and the Rector of the University, Prof. Puntoni. Prof. Capellini, whose geniality is well known to many English friends, filled the office of acting president, and it is mainly to his labours and to those of the general secretary, Sig. Sorbelli, that the success of the meeting is due. On arriving at Bologna delegates were met at the station by members of the reception committee, from whom they received useful literature and information as to the lodgings provided for them. A general meeting was held in the Archiginnasio in the afternoon of June 11, at which Prof. Capellini welcomed the guests and gave an account of the order of procedure; in the evening a conversazione was given by the Marchese Tanari in the municipal buildings. The morning of June 12 was devoted to the most important business of the meeting; the delivery of discourses by Prof. Capellini, the Minister of Public Instruction and Agriculture, Prof. Costa and others, was followed by the presentation of addresses, accompanied by a few remarks by selected delegates. A feature of special interest was a speech by Count Luigi Aldrovandi—connected through fourteen generations with his illustrious ancestor. Prof. Ferguson, of Glasgow, was chosen by the British delegates as their spokesman. Oxford University was represented by Mr. Ashburner; Cambridge University, the Royal Society, the Linnean and Geological Societies of London, by Prof. Seward; St. Andrews, by Dr. Steele; and Glasgow University by Prof. Ferguson, who had previously taken part in the celebration of the octocentenary of the Bologna University. Among other delegates who spoke were Prof. Pélissier, of Montpellier; Prof. Schück, of Upsala; Dr. Wieland, of Newhaven; Prof. Entz, of Budapest; Prof. Richter, of Kolozsvar; and Prof. Brusini, of Zagabria (Agram, Croatia). The unveiling of a memorial tablet to Aldrovandi in the courtyard of the Archiginnasio terminated a somewhat lengthy programme.

In the evening delegates were afforded an opportunity of seeing the new Italian Opera—"John the Baptist"—in the Municipal Theatre. A cordial reception was given to the composer, a young priest from Turin, as he appeared before the curtain with those who took the parts of Christ, John the Baptist, Herod, and Salome. On June 13 the delegates were present at the inauguration of the Aldrovandi Museum. This was the most striking event during the meeting. A large collection of well-executed wood-blocks, together with the original specimens, shelves filled with volumes of unpublished manuscripts, a collection of coloured drawings of natural objects, and a series of herbaria formed a most impressive demonstration of the industry and whole-hearted devotion with which Aldrovandi applied himself and his means to the pursuit and organisation of knowledge. The fact that a catalogue of the unpublished manuscripts, specially printed for the celebrations, consists of 300 pages affords some measure of what Aldrovandi accomplished. Each delegate received a bronze medal bearing a bust of Aldrovandi and the following inscription on the reverse:—

Cui natura parens
Quaerenti tota refulsit

Virum post tria saecula meritas et gloria florentem
civitas et universitas
Bononiensis doctorum totius orbis adsensu rite
concelebrant. Prid. id. iun. MDCCCCVII.

In the afternoon a visit was paid to the Istituto Rizzoli at San Michele, in Bosco. Within the building devoted to orthopædic treatment were seen strange machines in motion to which were attached patients in various attitudes. The view from the grounds of the institute of Bologna and the plain beyond could not easily be surpassed.

An enjoyable banquet at the Hotel Brun in the evening brought the celebrations to a conclusion.

The presentation of several specially compiled volumes to those attending the meeting afforded another proof of the pains taken to render the meeting a success, and supplied a permanent interest to a thoroughly enjoyable reunion of nations. The volumes included "Intorno alla vita e alle opere di Ulisse Aldrovandi—Studi di A. Baldacci, E. de Toni, M. Gortani, F. Morini, A. C. Ridolfi, A. Sorbelli"; "Chartulorum Studii Bononiensis"; "Catalogo dei Manoscritti di U. Aldrovandi a Cura di Ludovici Frati con la collaborazione di A. G. e Albano Sorbelli."

NATIONAL POULTRY CONFERENCE AT READING.

THE second national poultry conference was held at University College, Reading, last week, July 8–12, under the presidency of Sir Walter Palmer, Bart.

In addition to papers and discussions, there was an exhibition of pairs of about 150 breeds of poultry, both English and foreign. Several breeds of the latter had not been seen in this country previously.

Mr. C. C. Hurst read a paper on Mendel's law of heredity and its application to poultry breeding. After briefly alluding to Mendel's work on peas, he went on to describe the Mendelian pairs of characters in fowls, such as rose and single comb, white and coloured plumage, colours of legs, and others. The "law of segregation" was then explained and illustrated by reference to crosses between rose-combed Hamburgh and single-combed Leghorn, and between white Leghorn and black Minorca and other coloured varieties.

The rose-combed are dominant over the single-combed varieties, and the first cross are all rose-combed birds. Bred among themselves they produce on the average three rose-combed chicks to one single-combed bird. The latter mated with a similar one breeds true. The nature of the blue Andalusian fowl was then discussed, and the want of fixity of colour, in spite of more than fifty years of breeding and separation of "rogues," was pointed out. Pedigree "blue" birds produce only one-half blue like the parents, the remainder being black and splashed white birds in equal proportions. The black and white breed true, but when crossed produce all "blue" birds. The necessity of the determination of what characters are Mendelian was emphasised, and the practical value of Mendel's law in enabling breeders to calculate what the results of particular crosses will be was referred to in conclusion.

The next paper in the section dealing with breeding problems was by Dr. J. Llewelyn Thomas, on "Hybridisation Experiments with the Ceylon Jungle-fowl." These experiments were undertaken in 1903–4 with the view of solving the following questions:—(1) Will the Ceylon jungle fowl (*Gallus stanleyii*) breed with the domestic fowl? (2) Will the hybrids breed with the jungle fowl and with the domestic fowl? and (3) will the hybrids breed among themselves? The view that the black-breasted jungle fowl of India (*Gallus bankiva*) is the parent stock of the domestic game fowl is generally accepted, and Darwin, in his "Animals and Plants under Domestication," says that the Ceylon jungle fowl "may in all probability be rejected as one of the primitive stocks of the domestic fowl," a statement which he based on information supplied by a Mr. Mitford that two hybrids raised by the latter proved sterile. It was felt that the evidence just mentioned was not sufficient to establish a conclusion one way or the other, and experiments were undertaken to obtain further information on the matter. Wild Ceylon jungle fowls were obtained after much trouble and placed in specially built runs with domestic fowls in various parts of the island.

The mating of jungle hens with the domestic cock was a complete failure. The jungle cock, however, mated readily with domestic hens! The eggs laid proved fertile, and about thirty chicks were raised from them. The hybrid cock crossed with the domestic hen gave fertile eggs, and the offspring was fertile not only with the domestic parent, but also with the hybrid parent and with one another. No chickens were obtained from the crosses