

Royal Irish Academy:**New Professor of Theoretical Physics**

At the election meeting of the Royal Irish Academy in Dublin on March 16, it was announced that Dr. Erwin Schrödinger had been appointed professor of theoretical physics in the Academy as from April 1. The funds for the professorship are being supplied to the Academy by the Irish Government. Prof. Schrödinger has been giving a course of lectures on wave mechanics at University College, Dublin, since November last. This course has had a large attendance from members of the two Dublin Colleges. It will be continued now in the Royal Irish Academy.

It is believed that the institution of this professorship is intended as a temporary measure, pending the setting up of an institute for theoretical physics in Dublin, in which Prof. Schrödinger will have a permanent appointment. The recent publication of the text of a Bill making provision for the new institute shows that Mr. de Valera does not intend the financial difficulties arising out of the War situation to upset his plans for the development of higher mathematical studies. In addition to mathematics and theoretical physics, the mention of cosmology, geophysics and even chemistry in the Bill may be taken as indicating that Mr. de Valera has in mind the possibility of the institute broadening the scope of its studies in the future. There is also to be an institute for the promotion of higher Celtic studies.

Prof. H. Arctowski

WITH home, laboratory, and invaluable records of years presumably irrevocably lost during the War, Prof. Henryke Arctowski, formerly honorary professor of geophysics and meteorology in the University of Lwow, has begun work at the Smithsonian Institution on the direct effects of changes in the sun's radiation on weather conditions on the earth. Prof. Arctowski is recognized as one of the greatest authorities on world weather. He has now started with renewed enthusiasm on the correlation of solar and terrestrial phenomena from the comprehensive records of the Smithsonian Astrophysical Observatory. He has already made significant—although for the present tentative—findings of apparent cause-and-effect relationships between the variation of solar radiation and terrestrial weather conditions.

John Dixon Mann

DR. JOHN DIXON MANN, an eminent Manchester toxicologist, was born in 1840 at Kendal, where his father was borough treasurer. He received his medical education at the Manchester Royal School of Medicine and qualified M.R.C.S. and L.S.A. in 1862. For many subsequent years he was engaged in general practice in Manchester, but in 1880 he became M.R.C.P.(Lond.) as well as M.D. of St. Andrews, and confined himself to consultant practice. In 1882 he was appointed physician to the Salford Royal Hospital, and three years later became lecturer in forensic medicine and toxicology at Owens College, Manchester, in succession to Dr. C. J.

Cullingworth, who was elected professor of obstetrics and gynaecology. The lectureship was converted into a chair in 1892. Dixon Mann's principal work, "Forensic Medicine and Toxicology", which won him the Swiney Prize awarded by the Royal College of Physicians of London and the Society of Arts, went through four editions between 1893 and 1907 and was for many years the standard work on the subject. His other book, entitled "On the Physiology and Pathology of the Urine with Methods for its Examination", appeared in 1904 and was followed by a second edition in 1908. He also made numerous contributions to periodical medical literature including the *Medical Chronicle*, the now extinct Manchester journal, which contains a bibliography of his writings. He died on April 6, 1912.

Hindu and Moslem in India

THE course of recent events in India tends to confirm apprehension, such as has found expression in the columns of NATURE from time to time while the terms of the new constitution were under consideration, lest the introduction of the forms of Western democracy among a population of so heterogeneous a character in culture, creed and tradition might encounter difficulties well-nigh insuperable. It was hoped by those responsible for decision that the communal solution would at once secure the rights of minorities and ensure their acquiescence in the rule of the majority which is essential for the successful working of democratic institutions. It has been made evident by subsequent events that the necessary community of outlook was lacking. This is to be seen on one side in the breakdown under provincial autonomy, on the other in the difficulty in formulating a scheme of federation in which the claims of democracy can be reconciled with the autocracy of the native States and the fears of the Princes lest they should endanger rights based upon tradition and further secured by the treaty with the British Crown.

A situation which bristles with difficulties and requires the most delicate handling has been brought within measurable distance of a crisis in the turmoil of world events. The Indian Congress, the representative body of the Hindu community, has seized the opportunity to put forward a claim for the grant of that independent status for India towards which it was hoped the new constitution would serve both as a stage and a training ground. This claim the Moslem League has countered by a demand for the recognition of separate Moslem and Hindu nations within the bounds of India. The demand is by no means so fantastic as it may appear at first. Apart from the fact that the voice of a minority of some eighty millions or more, sectional differences for once forgotten, cannot be ignored, it is based upon a very real difference in a cultural tradition, as every student of Indian civilization is aware; for the Moslem tradition fosters a democratic outlook while fearing and resenting a Hindu domination in an independent India, which would from its immemorial tradition of caste be essentially oligarchic in practice. However impracticable the Moslem demand may be, no

solution will secure the future of India in world affairs or internally which attempts to ignore or override these fundamental differences of culture and tradition.

New Government Technical School at Takoradi

THE opening of the new Government Technical School at Takoradi introduces a further development of this type of education in the Gold Coast. Increased demand for technical instruction necessitated the removal of the school from Accra, where the accommodation proved to be inadequate. Moreover, the new site is more favourably placed in relation to the industrialized area of the Gold Coast. The new Technical School occupies a prominent site overlooking the sea and Takoradi Harbour, and the more important buildings include a long single-story workshop with blacksmith's shop at the rear, a three-story administration block containing classrooms, laboratories, drawing offices, assembly hall and dining-room and a dormitory block capable of housing one hundred students. The workshop is in two sections, one for practical work in mechanical engineering and the other for practical woodworking. Both sections are fitted with modern electrically driven machinery such as lathes, power drills, shapers, etc., in addition to the usual benches for manual work.

Other buildings include the European house-master's bungalow, two blocks of quarters for eight African masters, a block of six labourers' quarters, a large timber-drying store, petrol store and garage. The buildings are grouped around a five-acre sports ground. In addition, there are facilities for safe sea-bathing and boating. The buildings are fitted with electric clocks controlled by a master clock; most of the classrooms and the assembly hall are wired for the reception of wireless re-diffusion from the Sekondi broadcasting station; and there is complete water-borne sanitation. Candidates for admission must be in possession of a Standard VII Certificate or its equivalent. Present students include boys from Nigeria, Dahomey and all parts of the Gold Coast. Among entries for next year are three boys from Sierra Leone. The total cost of the scheme has been approximately £37,500, which includes approach roads, laying out of grounds, etc., the area covered by the school and grounds being some thirty acres.

Fishery Research in the Italian Empire

THE rapidity of scientific development in the new Italian Empire is well illustrated by the subject of aquatic biology. Only three years have elapsed since the conquest was complete, and yet the recently formed Direzione Superiore Affari Colonizzazione e Lavoro has already set up an Ufficio Idrobiologia e Pesca at Addis Ababa, under the direction of Prof. P. Parenzan, and a considerable amount of preliminary research has taken place on the inland waters of the former Ethiopia. These are described in the first number of a new official journal entitled *Bollettino di Idrobiologia, Caccia e Pesca*. It is a well-appointed publication, containing papers on fish, their impor-

tance in the food of native peoples, parasites and pathology, and accounts of other aspects of the biology of fresh waters, including the fish-eating birds and Mollusca.

Meanwhile, in the past half century, the vastly greater areas of lakes and rivers in British eastern Africa, containing correspondingly greater resources, have been subjected only to spasmodic and short-term scientific examinations, and most of these have resulted from the initiative of individual scientific workers or institutions not immediately concerned with colonial development. Perhaps the new policy in colonial research and development which has recently been announced by the Colonial Secretary may lead, after the War, to the inclusion of fisheries in both the sea and fresh waters in a widely planned scheme of research.

Paratypical Forms in Man's Line of Descent

IN a discussion, and incidentally a criticism on certain points, of the announcement of the discovery in Java of an upper jaw attributed to *Pithecanthropus erectus* (see NATURE, 144, 926; 1939), Prof. G. Montandon brings forward a suggestion which he argues would resolve certain of the difficulties inherent in apparent discrepancies in the evidence (*Rev. Scientifique*, 78, 1; 1940), and maintains that had Dr. von Koenigswald included the palatal view of the jaw in the figures accompanying the announcement of the find, it would have been evident that *Pithecanthropus* stands outside the Hominidæ. Prof. Montandon says that its shape is that of the U characteristic of the anthropoid jaw and not that of the horseshoe form found in man. Further, the simian diastema separating the incisors and canines is present here, though never found in man. At the same time, this disparity does not warrant classification of the jaw as that of a gibbon or other form of anthropoid. For, as Prof. Montandon goes on to point out, the teeth and especially the canines are not Simian but those of a Hominid. Comparison of the jaw with that of *Sinanthropus* definitely places the latter as belonging to a more advanced type and within the Hominid group.

The discussion becomes even more suggestive when Prof. Montandon passes on to consider the significance of Dr. Broom's recent discoveries in South Africa. Here in *Paranthropus* is a form which shows a like combination of incompatible characters. In cranial form *Paranthropus* is more Simian than Hominid, but at the same time in form of jaw and teeth it is the reverse. The jaw shows the horseshoe form, the absence of diastema, and a humanoid dentition. Prof. Montandon therefore goes on to ask the question, pertinent on his interpretation of the evidence, whether there may not be another form in which, as with *Pithecanthropus*, the cranium approaches the human more nearly than do the *Paranthropoids* of South Africa, but less human than them in respect of the dental arch. His further suggestion of a whole series of paratypes of wide distribution raises an interesting and wide question which at present rather hangs in the air.