

of the great scientific societies, the Lincej, the Paris Academy and the Royal Society, were the organs and the witnesses. We find in the life of Bruno a vivid narrative of the Oxford of the sixteenth century. Bruno visited Oxford in June, 1583, with the French Ambassador Castelnau, the translator of Ramus. Of the disputations in the schools, of their pompous frivolity, he gives a very amusing description. The earth, said Aristotle, Paris and Oxford, is motionless; the universe is finite and moves. Bruno, in the name of Philolaus and Copernicus, protested that the earth revolves and that the universe is infinite; and the dispute grew venomous. Bruno asked and was granted permission to teach in Oxford; but as *dormitantium animorum excubitor* he seems to have been even less successful in combating the physics of Aristotle than was Ramus in respect of his dialectic and Luther of his ethics.

Orthodoxy is the defensive weapon of society rather than of religion; when the needs of the two came into conflict it was religion which went to the wall. Happily "certain extravagant chemists," of whom more anon—and the Ramists, Paracelsians and Italian philosophers, were shrewdly assisted by new factors in the worlds of polite society and letters. As Petrarch and Boccaccio disarmed the academic coxcombs of Padua, now again in France the sceptical bonhomie of Montaigne, the revolutionary philosophy of Charron, the merciless rallery of the *Mariage Forcé* and the polished satire of Boileau did more to penetrate the armour of the Church than the hardier rebels to bruise it. By them the shabby Aristotelean effigy, battered by the weapons of Roger Bacon, of Galileo, of Harvey, of Telesio and Descartes, and bedaubed with the missiles of Patrizzi, of Ramus and of Verulam, was finally broken up and demolished. In the middle of the seventeenth century at Wadham, Warden Wilkins gathered about him a constellation of scientific men such as has perhaps never gathered together in any other time or place. Robert Boyle, Christopher Wren, John Locke, Robert Hooke, and, but little latter, John Mayow, all of them men of genius, were at the head of a society which was the foundation of the Royal Society, and among its lesser lights contained names no less than those of Seth Ward, John Wallis, Thomas Willis, Roger Lower and William Petty. The lecture concluded with a study of Boyle, not only as a scientific discoverer, but also as a philosopher and a reformer of method of far greater insight than Dr. Whewell admits, and, moreover, a man of charming temperament and an accomplished man of letters.

ANTHROPOLOGICAL RESEARCHES IN INDIA.¹

LIEUT.-COLONEL DR. WADDELL has been constrained to make a careful study of the savage tribes that live in the mountainous valleys of the upper waters of the Brahmaputra, as he realised that the unique mass of ethnological material which is stored in these mountain recesses is being allowed to disappear unrecorded. It is said to be no uncommon sight to see a Naga, who only two or three years ago was a naked head-hunting savage of the most pronounced type, now clad in a tweed coat and carrying a Manchester umbrella, taking his ticket at a railway station. Dr. Waddell states that one of the oldest European residents of Assam, Mr. S. E. Peal, urged at every opportunity in the public Press and in communications to the Asiatic Societies, the Royal Geographical Society and the Anthropological Institute of London, in the strongest terms possible, the necessity for action without further delay. In despair at the apathy displayed in the matter, he willed away at his death, a few months ago, to a museum in New Zealand all his collections of miscellaneous notes and specimens of the vanishing ornaments and primitive costumes of these wild tribes. Colonel Woodthorpe has emphasised the loss to ethnology if the many interesting tribes are not carefully studied soon. Mr. Wharry, adviser on Chinese affairs to the Government at Burma, says:—"The chance of studying these peoples to full advantage is fast slipping away."

The observations published by Dr. Waddell relate to about

¹ "The Tribes of the Brahmaputra Valley: a Contribution on their Physical Types and Affinities." By L. A. Waddell, M.B., LL.D., Lieut. Colonel, Indian Medical Service. (*Journal of the Asiatic Society of Bengal*, vol. lxxix., part iii. 1900 (1901) pp. 1-127, pls. ii-xviii.)

"The Coorgs and Yeruvans, an Ethnological Contrast." By T. H. Holland, A.R.C.S., F.G.S., Geological Survey of India. (*Ibid.*, vol. lxx. part iii. 1901, pp. 59-98, pls. i-v.)

600 individuals belonging to more than thirty tribes or groups. After briefly describing the influence of topography on the ethnology of the district and the racial elements, he gives a short account of a large number of tribes in alphabetical order. This section contains a great deal of very interesting matter which is of value alike to the ethnologist and to the student of comparative customs. Then follows the detailed anthropometric data and seventeen plates of portraits and groups. As the tables of indices and the "comparison of the results and the bearing of these on the question of the affinities of the tribes" are not given in this part, we assume they will follow in the next number of the journal, when it is to be hoped the equally bulky data for the tribes of Tibet and Burma, which the author has amassed, will be published for the benefit of his colleagues at home.

The laborious work accomplished single-handed and mainly at his own expense by Colonel Waddell deserves our warmest thanks, and we hope he will feel that anthropologists thoroughly appreciate his self-denying labours. It is quite beyond the power of the few students at home to help in supporting, save by encouragement, such workers as Colonel Waddell. To our shame be it spoken, there is no organisation by which the wealth of those who have abundance can be directed towards the pressing needs of field-work among primitive peoples, such as is so pathetically advocated by the author of this paper, and our Government also is apathetic to the study of native races; one can only hope that this negligence is due to ignorance.

Since Colonel Waddell wrote his paper, the Government of India has undertaken to conduct an Ethnographic Survey of India in connection with the census of 1901. This action was due to the initiative of the British Association at the Dover meeting in 1899; particulars of the proposed scheme of work will be found in *Man*, September 1901, p. 137. As Mr. Risley, the author of "The Tribes and Castes of Bengal," has been appointed Director of Ethnography for India, we may feel sure that the Survey will be wisely planned, and we sincerely hope that sufficiently skilled workers are employed and that the usefulness of the Survey will not be impeded through lack of funds. While we are thankful for this official recognition of the claims of anthropology, it is still necessary to repeat, what has so often been urged in the pages of NATURE, that there is an enormous mass of ethnological material in our Empire beyond the seas which is yearly decreasing at an alarming rate, or is rapidly becoming so modified as to lose its original value. The loss of this vanishing anthropological information is supinely permitted by our Government. What a contrast there is between the British Government and that of the United States is known only too well by those acquainted with the annual reports of the Bureau of Ethnology.

Mr. T. H. Holland, of the Geological Survey of India, has published a very valuable study on two well-contrasted human types found in a small district of southern India. The presentation of the data, their discussion, the comparative tables, diagrams and plates, render this a model paper.

In the little province of Coorg, which embraces a semi-isolated portion of the western Ghats, there is an interesting instance of the way in which a mountainous and jungle-covered country has been turned to totally different purposes by two distinct races. The agricultural Yeruva early retreated into the little mountain province before the aggressive invaders. At a later period the splendid Kodagas (Coorgs) found in the jungles of Coorg the means of satisfying their hunting propensities, whilst the narrow passes suited their highly developed instincts for predatory raids into the country of their wealthier but less warlike neighbours. The sporting and fighting proclivities of the Coorgs reveal themselves even in their festive and religious ceremonies. From his very birth, when a miniature bow and arrow made from the castor oil plant is placed in the hands of the baby boy, the Coorg male is, or was, regarded as a huntsman and a warrior whose pride was in his size and strength; hence this is the finest race in the south of India.

A comparison of the physical characters of these two tribes proves that the Coorg is on an average 3.9 inches taller than the Yeruva, and with a relatively shorter span he has a larger and broader head, a more perfect approach to orthognathism, his nose is longer and narrower. There is a marked contrast between the fair (light brown), straight-haired Coorg and the very dark-skinned Yeruva, whose hair is distinctly wavy. The features of the latter are generally of the stamp which we should characterise as distinctly low, the broad nose being accompanied by thick, slightly everted lips.

The Coorgs and the Yeruvans belong to two distinct ethnic types. The latter tribe falls into a group with the Kurumbas, Irulas, Paniyans and Kadirs, who have been so ably studied by Mr. Thurston and are the South Indian cousins of the Kols and Gonds living on the central highlands. In all their physical characters the Coorgs differ from the Yeruvans, and, indeed, they possess more of the superior characteristics which are supposed to indicate an Aryan origin than do many of the South Indian tribes who claim a higher caste position, and fewer signs of aboriginal blood than even the Brahmins of the Madras Presidency. Their almost brachycephalic index of 79.9, however, leaves, the question of their ethnic relationship an unsolved problem.

A. C. H.

UNIVERSITY AND EDUCATIONAL INTELLIGENCE.

OXFORD.—The Rolleston memorial prize for original research in morphology has been awarded to Mr. Francis J. Cole, Jesus College.

CAMBRIDGE.—The Balfour managers have made grants for zoological research in Africa to Mr. C. Crossland and Mr. J. S. Budgett.

An exhibition of astronomical photographs from the Yerkes and Lick Observatories will be given at the Cavendish Laboratory on May 29 by Sir Robert Ball.

Applications for tables at the Naples and at the Plymouth zoological stations should be addressed to Prof. A. Newton by June 5 next.

The complete degree of M.A. *honoris causa* is to be conferred on Mr. T. H. Middleton, the new professor of agriculture.

Mr. W. B. Hardy and Mr. F. G. Hopkins have been appointed examiners for the Gedge prize in physiology.

The Thurston prize for original research in physiology, pathology or practical medicine, open to members of Gonville and Caius College of not more than fifteen years' standing from matriculation, will be awarded this year. The prize is triennial and amounts to about 54*l.* Applications are to be addressed to the master on or before September 30.

A CONVERSAZIONE will be held at University College, London, on Thursday, June 19. A large number of friends and old students will be present, and exhibits will be arranged in connection with the various departments, to illustrate the work being carried on at the College.

THERE is every likelihood that another University will soon be added to the large number of such institutions at present existing in the German Empire. Frankfort a. M. is the city which is thus to be enriched. It already possesses the Senckenberg's Institute for natural sciences and medicine, and also an academy for the study of social and commercial science. To the former—at which, it may be mentioned, important scientific work is carried on—there has recently been added a laboratory specially constructed for the investigation of cancer. This department is richly endowed, partly, it is said, by the Emperor William, and is placed in the care of an eminent bacteriologist. The academy is very largely attended by foreign as well as German students, America in particular being well represented. And now it is announced that the trustees of the Karl Juegel's bequest have decided to devote the interest on the capital sum of 2,000,000 marks (100,000*l.*) to the erection in Frankfort a. M. of an academy for the study of history, law, philosophy and allied subjects. When this third institution is established, Frankfort will possess practically all the faculties, with the exception of theology, which go to form a University; and therefore the authorities have decided to draw up a Bill which, if passed by Parliament, will unite the three institutes of learning into one University. There is strong reason to suppose that no particular difficulty will be encountered in carrying out this plan, for Frankfort is in many ways eminently suitable for the position of being an University city.

Now that the second reading of the Education Bill has been passed, efforts should be made in Committee to remove the permissive clause, especially in so far as it affects higher education. At present, as Mr. Henry Hobhouse points out in a letter to the *Times*, there is little more than a framework for legislation. "No statutory duty is laid on the local authority to aid

education 'other than elementary,' and no permanent fund is appropriated for this object. The 'whisky money' is not safeguarded, despite the obvious danger that the ratepayers in certain localities will press for compensation out of this fund for the additional burdens necessitated for the purposes of elementary education. Nor are the objects of higher education in any way defined. The intention of the Government apparently is (though it is not expressed in the Bill) to impose on the new authority the provision of evening continuation schools, pupil teachers' centres, and even training colleges. The restrictions of the Technical Instruction Acts on aiding private profit schools and on teaching trades are swept away. In a word, under part ii., as it now stands, it would seem that a local authority may do anything and need do nothing. Surely Parliament ought to give more guidance than this to the new authorities, or there will be great danger that in certain localities most important developments of educational work will be wholly or partially neglected." As the Bill at present stands, there is a danger that the last case of higher education will be worse than the first.

AT the presentation day of the University of London, on May 14, Lord Rosebery was welcomed as the new Chancellor. Principal Rücker read his report upon the work of the University during the past year, and referred to the following points among others. The organisation of the University has been completed by the addition of a new department for University extension and the inspection of schools. Regulations have been passed for the admission of post-graduate students from other Universities to study for the doctorate in London, and it is satisfactory to be able to record that a considerable number of such students are, or are about to be, placed upon the books of the University. Two chairs of chemistry are to be established at University College, one for general chemistry, which will be filled by Prof. Ramsay, the other for organic chemistry. In no subject has the difference between the completeness of English and foreign educational equipment been more marked than in chemistry. Only two or three educational institutions in this country have more than one professor of chemistry, while in Germany even a University of the second-class usually has several professors in that department. It is hoped that the chairs now founded in University College will be the beginning of a great chemical department worthy of London. A very large scheme, which will have an important bearing on the future organisation of the University, has been set on foot in consequence of the munificent offer of the Drapers' Company to give 30,000*l.* in aid of the incorporation of University College in the University. The authorities, both of the University and of the College, have agreed in principle to the main outlines of a plan for incorporation, provided that an initial sum of 110,000*l.* can be raised. There is every reason to hope that this condition will before long be fulfilled. While the University has been engaged in entering into closer relations with the various schools, and in negotiations for the complete absorption of one of them, it has also been undertaking teaching on its own account. All the leading physiologists in London have banded themselves together to give courses of lectures on that subject for advanced and post-graduate students, and Mr. Walter Palmer has generously given a sum of 2000*l.* to enable the experiment to be tried as to whether such lectures would attract an adequate number of students. The University has contributed another 400*l.*, and has also placed a suite of rooms in the University buildings at the disposal of the teachers as laboratories and lecture rooms. To obtain an idea of the research work being done in London, recognised teachers of the University were asked to supply a short statement as to the publications of themselves, their assistants and students during the past twelve months. Nearly six hundred memoirs, papers and minor communications to scientific and literary journals have been reported. As might have been expected from the large number of its members, the medical faculty takes the lead in the number of its publications, somewhat less than half the above total being communications to professional medical societies and journals. Teachers of the University, their assistants and students have made about 220 additions to general scientific literature. They have been the authors, or joint authors, of eleven papers in the *Transactions* of the Royal Society, or of about eighty papers which have appeared in the *Proceedings* of the Royal Society, and in the journals of the Chemical, Linnean, Physiological and other kindred societies. University College heads the list