

is placed on the ground outside and the mystic "Nyakang" set on it. The king-elect holds one leg of the stool and the highest chief holds another, while members of the royal family stand around. Certain men known as *ororo*, who are said to be descended from the third Shilluk king, kill and eat a bullock, and then place the king on the stool, while the image is taken in to the shrine. At sundown the king rises and is escorted to three newly built huts, where he remains in retirement for three days. During the fourth night he is quietly conducted to his palace, and on the following day gives public audience. The three huts are broken up and cast into the river. The men of Akurwa remain at Fashoda until the end of the dry season.

The divine spirit is thus not congenital, but must be conveyed to each successive monarch. The entry of a royal spirit into an individual is believed to be one of the commonest causes of sickness. Only the early kings take part in this, and they may be induced to leave the sufferer by sacrificial offerings at the appropriate shrine. Certain persons, the *ajuajo*, are regarded as permanently possessed, and these do a brisk trade in healing and the sale of amulets.

Fuel Research.¹

THE first section, issued separately, of the report of the Fuel Research Board for the years 1920-21 is devoted to an account of experiments made at the Greenwich Experimental Station on steaming in vertical gas retorts. A Glover-West setting was employed, but the ordinary system of working was modified in one or two respects. The setting was fired by water-gas or coal-gas, the quantity of which could be measured, and the air for combustion was supplied under uniform positive pressure. Moreover, the air supply was preheated by the outgoing flue gases at the top of the setting in an exchanger built of steel pipes.

The work may be regarded as complementary to that carried out on the same subject at Uddingston by the Joint Research Committee of the University of Leeds and the Institution of Gas Engineers, and reported last year. It had the same aim of establishing trustworthy technical data for the process of steaming, which is increased in importance by the greater elasticity given to the manufacturers of gas by the provisions of the new Gas Act. Whereas, however, the work of the Research Committee at Uddingston was confined to one Scottish coal, tests have been made by the Fuel Research Board on several coals, including Consett and Mitchell Main gas nuts, although the coal used at Uddingston was included in order to bring the two sets of experiments into line.

This extension of the work to several coals has apparently made it impossible to secure the same construction of chemical balance sheets for carbon, nitrogen, and sulphur, which was a principal part of the work of the Research Committee. Data have been obtained for the increase in gas makes, the production of ammonia, and fuel consumption when operating with different quantities of steam, and as a result the favourable verdict of the Research Committee on the steaming process is confirmed.

A number of interesting tables and graphs, which will repay the critical attention of those specially interested, and a clear diagram of the train of

¹ Department of Scientific and Industrial Research; Report of the Fuel Research Board for the Years 1920-21. First Section: "Steaming in Vertical Gas Retorts." (London: H.M.S.O., 1921.) 1s. 6d. net.

plant which was employed for carbonisation and purification accompany the report. Some suggestions are given for consideration on practical points. One appendix deals with sampling, testing, and analysis, and three others with special points arising in the tests. The whole of the report is a full record of very extensive experimental work carried out on a subject which has been recognised by those associated with the gas industry as of a high order of importance. J. W. C.

University and Educational Intelligence.

BRISTOL.—It has been decided to conform to the practice of most other English universities by granting a diploma (in lieu of a certificate) in engineering to students who, though not qualified for matriculation, pass the entrance examination for admission to the Faculty of Engineering and complete satisfactorily the course of study prescribed for this purpose.

Some years ago a committee was set up by the Faculty of Medicine for organising post-graduate studies for practitioners in and around Bristol, and during this autumn three courses of demonstrations have been given, two in Wiltshire and one in Dorsetshire. These have proved so successful that the committee is projecting a wider campaign, and is offering to arrange courses throughout the south-west of England. Each course consists of six demonstrations, one or more per week, and to each centre a large selection of subjects is offered from which those attending the course may select what seems to them of greatest value. In rural areas all the demonstrations are given by University lecturers, but in the large towns it is hoped to enlist the co-operation of the local hospital staffs. The demonstrations condense into small compass recent advances in the work of the medical profession, and each one is entrusted to a member of the Faculty who has given particular attention to that subject. In this form of University extension work Bristol leads the way so far as Britain is concerned, though we believe that similar work has been undertaken in Canada by the University of Toronto. It is as direct a return as any of the activities of the University for the grant now being made by local authorities.

LONDON.—The Senate has conferred the title of "Professor of Logic and Scientific Method in the University of London" on Dr. A. Wolf, former fellow of St. John's College, Cambridge, and fellow of University College, London. Prof. Wolf is the head of the Department of the History and Method of Science at University College and of Logic and Scientific Method at the London School of Economics and Political Science.

THE annual prize distribution and students' conversation of the Northampton Polytechnic Institute, Clerkenwell, London, E.C., will be held on Friday, December 2. The Right Hon. Lord Southwark will distribute the prizes and certificates.

TRINITY COLLEGE, Cambridge, offers for the second time a research studentship of a value varying with the need of the student, but not exceeding 200l. a year, to a non-member of the University of Cambridge who proposes to enter that University in October, 1922, as a candidate for the degree of Ph.D. Applications should be sent as early as possible in