

Museum, under the guidance of Prof. L. von Plate. In the afternoon members examined the Muschelkalk at Göschwitz, where the rock is worked on the plateau in a succession of funnel-shaped quarries. A tunnel leads to the bottom of each funnel and the rock is tumbled down into the waiting waggons, which are transported by an aerial line to the cement works in the valley. Since the rock is cut out in steps, each quarry resembles a Roman amphitheatre, but with no arena. Thus ended an exceedingly interesting meeting, at which one would like to have seen more palæontologists from the British Isles.

Cotton-Growing in the British Empire.

A USEFUL account of the present position of cotton-growing in Uganda is given by Col. C. N. French in a recently published report to the Empire Cotton-Growing Corporation on his tour through the cotton areas of Uganda, Kenya, and the Mwanza district of Tanganyika. The rise and promise of Uganda as a cotton-producing region are well known. Under the careful guidance of the agricultural department, cotton has become by far the most important export of the country, the annual production amounting to nearly 200,000 bales. Practically the whole of the crop is raised by the natives, who send their seed cotton to the ginneries established at convenient centres under European or Indian control. The type at present grown is a variety of the famous "Nyasaland Upland." The quality of the cotton is good and the yield not unsatisfactory, while so far no serious pests have been encountered. Col. French considers that for the time being the producing area should not be extended, but efforts made to consolidate the present position by the application of science and improved agricultural methods with the view of producing increased quantities of cotton of better and more uniform quality from the area already under cultivation. He believes that the most immediate need for the attainment of this object is the strengthening of the scientific side of the agricultural department, and he puts forward suggestions for the reorganisation he considers desirable.

A further illustration of the work of the Empire Cotton-Growing Corporation is afforded by the "Reports from the Experiment Stations for the Seasons 1923, 1924, and 1925 (South Africa only)." In South Africa, F. R. Parnell has established the fact that resistance of the cotton plant to the attacks of "jassid" (*Chlorita fascialis*, a small winged bug forming a menace to cotton-growing in the lower veldt) is hereditary, and considerable progress has been made in the direction of breeding a jassid-resistant variety of cotton. R. C. Wood reports on the selection and other experimental work carried out at Mpanganya (Tanganyika). One of the varieties resulting from the selections made in 1922 will be the first seed to go out into general cultivation (it is hoped) in the season 1926-27. The work of establishing and laying out the experiment station at Makwapala (Nyasaland) during 1924 is described by H. C. Sampson; while details of a variety test with Sea Island cotton in St. Vincent, B.W.I., are recorded by L. H. Burd. This latter work was undertaken with the object of investigating the relationship, if any, existing between the yield and other "growing" qualities of the cotton plant, and the spinning characters of the fibre. The inconclusive results illustrate the difficulty of complicated work of this nature, but an encouraging practical outcome of the experiments is the evidence afforded by the spinning tests (carried out by the Experimental Department of the Fine Spinners' and Doublers' Association) of the superiority of all the strains of

cotton tested over the control standard sample of West Indian cotton: reduction of comber waste was considerable, and in one case a superiority of 47 per cent. over the control cotton as regards the relationship between hair strength and weight of lint was recorded.

The Empire Cotton-Growing Corporation has evidently recruited men of overseas experience in addition to scientific knowledge in their task of widening the area under cotton cultivation in the British Dominions-Overseas. The October number of the *Empire Cotton Growing Review* contains reports of their activities in all parts of the Empire. H. C. Sampson points out how cultivation implements adapted from Indian experience may be applied to cultivation with native labour in East Africa, whilst Col. C. N. French discusses the possibility of adapting the methods of administration of large-scale estates in the Punjab to the problems of cotton-growing in the Mandated Territory of Tanganyika. Mr. Youngman describes the short staple Oomras cotton and the factors leading to the cultivation of this coarse type of cotton in a vast area of Central India. It is thus once more apparent what a reservoir of experience to be applied in problems of tropical administration is rendered available through Britain's long responsibility for India's development. In a review dealing with cotton-growing, insect pests are naturally well to the fore, and H. A. Ballou discusses them in general relation to cotton; F. R. Parnell's work on breeding jassid-resistant cottons is also described, whilst incidentally, in discussing insect pests under Australian conditions, E. Ballard gives it as his experience that jassid infestation is only serious when the soil is very poor, *e.g.* deficient in potash.

University and Educational Intelligence.

APPLICATIONS are invited by the Harveian Society of London for the Buckston Browne prize, consisting of a medal and 50*l.*, for the best essay on "The Etiology of High Blood Pressure and of the Respiratory Phenomena associated with High Blood Pressure and Chronic Nephritis." The latest date for the receipt of essays is November 1, 1926. Particulars of the competition may be obtained from Dr. G. de Bec Turtle, 81 Cambridge Terrace, Hyde Park, W.2.

THE President of the Board of Education and the Minister of Labour have appointed a committee "to inquire into and advise upon the public system of education in England and Wales in relation to the requirements of trade and industry, with particular reference to the adequacy of the arrangements for enabling young persons to enter into and retain suitable employment." The committee consists of Mr. Dougal O. Malcolm, Miss Violet Markham (Mrs. Caruthers), Mr. Max J. Bonn, Mr. W. B. Kenrick, Mr. Arthur Shaw, Mr. Christopher H. Turnor, and Mr. D. Milne Watson. Mr. H. B. Wallis, Board of Education, and Mr. W. H. Lowe Watson, Ministry of Labour, are joint secretaries, and all communications should be addressed to them at the Ministry of Labour, Montagu House, Whitehall, S.W.1. The absence from the committee of any one familiar with the place of science in education, or education in science, is particularly noteworthy. Oxford and Balliol predominate in the membership of the committee, and they represent the characteristic official attitude towards scientific teaching or its relation to modern needs.

A NEW Diploma Course in Agriculture is announced by the Edinburgh and East of Scotland College of Agriculture. Hitherto the College diploma course has extended over three years, like the degree course, from which it has differed but little in scope. Neither course has attracted more than a very few prospective

farmers. Nearly all those who have taken them have done so with the view of becoming teachers or departmental officials. The college authorities have determined that the new diploma course shall meet so far as practicable the needs of the ordinary farmer, and have therefore limited it to two winter sessions, and reduced to a minimum the purely theoretical instruction. The new regulations appear in full in the College Calendar for 1925-26. The subjects are agriculture, agricultural chemistry, agricultural botany, agricultural zoology, farm accounting and agricultural economics, land surveying and agricultural engineering, veterinary science, and agricultural law. The Calendar shows that during the past session the central classes were attended by 407 students, namely—day classes, 121; evening classes, 184; rural schools' course, 86, and farmers' class, 16.

THE government of the Welsh National School of Medicine has formed the subject of prolonged consideration by the Council of the University of Wales, which has come to the conclusion that the School, at present governed by the Council of the University College of South Wales and Monmouthshire, assisted by a Board of Medicine and a Faculty of Medicine, should be constituted an independent School of the University. At a special meeting of the Court of the University presided over by the pro-chancellor, Lord Kenyon, on October 16, a resolution to this effect was submitted by Mr. William George, of Criccieth. It was asserted, as one of the grounds of the motion, that unless the School was made truly national it would be difficult and perhaps impossible to secure rate aid from the North Wales councils, and the Privy Council grant of 7000*l.* would not be available. The motion was opposed by Principal Trow, of the University College of South Wales. After discussion it was carried by 71 votes to 41. It is proposed to petition the Privy Council for a charter of incorporation for the School, the status of which in the University of Wales would thus approximate to that of the College of Medicine, Newcastle-on-Tyne, in the University of Durham.

THE University of Leeds has launched a public appeal for half a million pounds for structural expansion and increased equipment. This sum is not far short of the total of the donations and subscriptions (excluding those of the Clothworkers' Company, amounting to about a quarter of a million) received by the University and the Yorkshire College of Science during the past fifty years. The appeal organisers have set themselves the task of raising it in ten years, hoping that it may be possible to proceed with the building programme meanwhile at the rate of 50,000*l.* a year. The staffing of the University has, in the past, been treated always as of first importance, and to this policy is largely due the substantial success it has achieved in the pursuit of its aims, but a situation has now been reached in which "its present efficiency is severely hampered and its future efficiency is imperilled both by the want of accommodation and by the unsuitability of much of the existing accommodation." In particular a new library building with accommodation for 200,000 volumes, new laboratories for the medical school, new buildings for nine or ten departments, new residential hostels, and a properly equipped students' union building are urgently needed. With the appeal, which is addressed especially to the local patriotism of Yorkshiremen, is circulated a booklet prepared for the jubilee celebrations of last year, giving an account of the growth of the University and a summary statement of its activities. The first list of subscriptions in reply to the appeal includes donations and promises amounting to more than 110,000*l.*

Early Science at Oxford.

October 24, 1683. Several members of the Royal Society and others, met at Oxford for making experiments. There was communicated an observation of the weight of the earth of the Nile about the time of the overflowing of that river, but especially a relenting of a piece of nitroon or nitre, brought from Ægypt, which continually wet the papers, on which it lay, both in rains and dry weather, from the middle of June till about the end of September.—There was also an intimation of fish having lived in a cistern upon rain-water only for half a year, till upon the freezing of the water they died by breaking of the ice.—There was also mention made of a probable way of tinging white marble black.

October 26, 1683. The Company meeting, in ye Naturall History School, desired Dr. Wallis, to take on him ye trouble of ye Chair; and appointed Mr. Musgrave, to take ye Minutes of their discourse; after which, Dr. Plot made a learned Discourse on Earths. Upon ye account of the last branch of his Scheme, it was ordered by ye company, that some person should try, whether Boles burnt will apply to ye magnet? Dr. Plot was pleased to take this province on him: This gave occasion to a farther discourse concerning Magnetism; twas delivered as an observation, by Mr. Ballard, that a magnet, carried up, and down, in his pocket, has been found to attract sometimes more, then at other times.

'Twas ordered to be tryed, whether bricks, heated, and afterwards growing cold, in a posture North, and South, will acquire a verticity? Mr. Ballard promised ye Society to try this experiment.

After this, an enquiry was made into ye nature, and reason, of striking fire; 'twas proposed as a quære if how tobacco-pipes (in which there is not ye least suspicion of a Sulphur) come to strike fire? 'Twas given in as an observation, that hardened iron (such as horse-shoes are made of) will yeild flakes of fire, larger, and of a deeper red, than steel will? This led ye Company to discourse of hardening Iron.

Dr. Plot was desired to give an account of ye methods used by ye smiths at Wolverhampton in these cases: 'Twas observed, that an ingenious smith of Oxford, us'd to soften his iron, by heating it moderately, then dawbing it over with tallow, and afterwards heating it red hot, and letting it cool gradually in the fire as that went out.

October 27, 1685. The Company being small no papers were read.

October 28, 1684. A bottle of water, sent the Society, by Mr. Maunder, from a well near Milton-Abby in Dorsetshire, was delivered in at our meeting by Mr. Crouch; and ordered to be examined as to its principles; which office Mr. Welsteed took on him. The well from whence this water came, does sometime purge, sometimes vomit, and is said to cure ye gout.

Dr. Plot communicated an abstract of a letter dated from Minehead, October 17, 1684, in which Mr. Cole acquaints ye Doctor, that he was lately met with a shellfish on ye Severn shore, containing a white viscus phlegm, which being laid on cloth, turns *greenish*, within a minute or two; then being put out into ye Sun, for a little while, turns to a deep red, which growes somewhat lighter by ye first washing, but after that never decays, tho ye cloth be often washt. He adds farther, that this Tincture is extremely fetid, so that the ill smell is not easily taken away. He was pleas'd to send us Patterns of ye green, ye deep, and lighter Reds, which sufficiently answered their descriptions. The thanks of the Society were ordered to be returned him, for this considerable peice of newes.