sufficiently thick in some places to more or less completely obliterate the figures. In some figures the incisions have been reinforced by black pigment, which occasionally replaces the cuts. Sometimes, more especially about the head of certain animals, the surface of the rock is scraped away around the contour of the figure so as to throw it into a slight relief.

The style of the engravings is in complete accord with those etchings on bone and antler which occur in the Magdalenian stations, and their character proves that

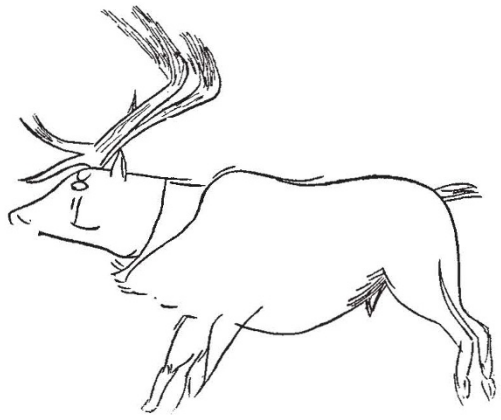

FIG. 1.—Running Reindeer, Cave of Combarelles.

they were drawn by artists who were perfectly familiar with the living animals. As in the earlier finds, the animals may be represented separately, or intermingled, or in definite groups.

Among the forty representatives of horse-like animals, at least two distinct types are recognisable. One has a massive head with a convex nose, the mane is short and stiff or long and flowing, and the tail is similar to that of our own horses. Some of these horses were domesticated ; several very clearly show a halter and others a cord round the

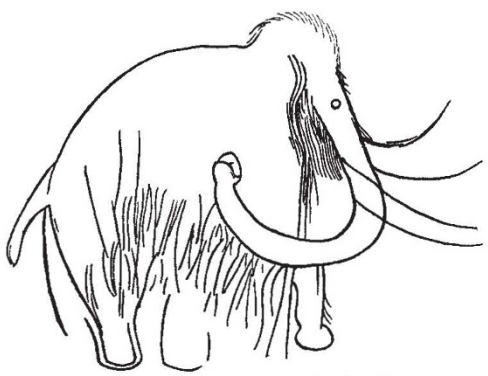

FIG. 2.—Mammoth, Cave of Combarelles.

muzzle ; a covering of some sort appears to be thrown over the back of two of the horses. This new evidence, in addition to the several representations of haltered horses from the cave of Mas d'Azil, seems to prove beyond question that the horse was domesticated at this early period. Certain Equidæ are represented of a more elegant shape, with a small head, slender legs, short and always erect mane, and with a tail that arises low down and is bare save for a terminal tuft of long hair.

The representations of the Bovidæ are less frequent. Three appear to represent bisons ; one is not unlike the domestic cattle of to-day ; a third, with erect mane, slightly incurved horns and a dewlap provided with long and abundant hair, recalls certain African antelopes. Two heads may be attributed to the saiga antelope, and one large head suggests that of an eland, but it is without horns. There are only two entire figures of reindeer ; the one which is represented as running is here reproduced. The artists have clearly indicated the differences between the reindeer and the wild deer of Europe, of which there are three examples.

The drawings of the mammoth are of interest second only to that of the horses. Of the fourteen examples, some are represented as entirely covered with hair and look like fluffy balls ; others have less hair, but are provided with a fleece on the under side of the body, on the head and occasionally around the mouth, as shown in our illustration. The trunk, the tusks, which are always strongly recurved, and the great characteristic feet are very distinctly drawn ; only in two figures are indicated the details of the form of the ears.

The only approach to a representation of a human face is a kind of irregular circle with an indication of two eyes and some marks for the nose and mouth. Among other simple signs were three roof-like fairly complicated designs, a double-contoured lozenge in the middle of the body of a horse, several M-like marks, semicircles, &c., which may be related to the script-like paintings found in the Mas d'Azil cave, and, finally, a group of very distinct small cups.

As only a preliminary paper has been published by the French savants, we are unable to give any further particulars of this most interesting and important find. The publication of all the particulars will be eagerly awaited by archæologists, as doubtless fresh light will be thrown upon these very remarkable troglodyte artists, who

"Pictured the mountainous mammoth, hairy, abhorrent, alone—
Out of the love that he bore them, scribing them clearly on bone."

A. C. H.

THE UNIVERSITY OF LONDON.

THE Drapers' Company has come forward with a generous offer in order to secure the incorporation of University College with the University of London. The offer is contained in the following resolution, which was brought before the Senate of the University on January 22 :—"That the Drapers' Company, believing that it is for the good of the higher education in London that University College should be incorporated in the University of London, and that for this purpose it is desirable to place the site, land, buildings and endowments of the college at the complete disposal of the University, are willing to facilitate this object by making themselves responsible for the debt on University College to the extent of 30,000*l*., provided that the Senate of the University and the corporation of University College can, before February 28, 1903, agree upon a scheme for the incorporation of the college in the University, and such scheme be approved by the company."

At first sight it seems difficult to imagine how such an incorporation can be effected. Committees appointed by the University and University College will consider the matter, and it is to be hoped that the bearings of the proposal will soon be published. An additional inducement for the realisation of this scheme lies in the announcement made by Sir Michael Foster that a gentleman is prepared to give to University College 1000*l*. a year, redeemable either by himself or his executors by payment

of 30,000*l.* free (in the latter case) of legacy duty, on condition that the college becomes incorporated in the University on terms similar to those on which the gift of the Drapers' Company has been made, and satisfactory to Sir Michael Foster and two other persons to be named hereafter.

The Senate of the University has decided to devote the grant of 10,000*l.* by the London Technical Education Board to the following objects, subject to the approval of the Board and to the result of negotiations with the various institutions interested :—

(1) To found two professorships and two assistantships in chemistry ; (2) to organise the teaching of German in London by appointing two professors and three readers. The classes will be held at the colleges and polytechnics, but the fees will be paid into a central fund, and the whole staff will be under the direction of the University ; (3) to make grants of 1425*l.* and 1000*l.* a year respectively to two institutions in aid of the faculty of engineering ; (4) to appoint and pay the regular staff of teachers in the London School of Economics ; (5) to reserve 800*l.* a year pending negotiations with the London County Council as to the establishment of a day training college.

A scheme for establishing advanced courses of study on physiology in the University buildings has been approved by the Senate, and 400*l.* has been voted to meet the donation of 2000*l.* by Mr. Walter Palmer.

From the *British Medical Journal* we learn that each course will consist of not less than eight lectures, or will extend over at least eight weeks, and attendance will be open without fee to students of the University and to other persons approved by the principal. It is recognised to be essential to the success of such lectures that they should immediately proceed from laboratory work, and be in a large measure demonstrative of current research. It is, therefore, necessary that the University lecture-room should be supplied by preparations and work-rooms in which current research will be actually prosecuted. It is hoped that from the outset the University lecturers and other physiologists may be able to prosecute research in these accessory rooms, and it is strongly felt that official recognition and provision for research is in several ways essential to success, first, as a corrective of a purely verbal and didactic type of lecture, and secondly, as being calculated to stimulate the intellectual interest of University lecturers and other students. Further, the working of the scheme will afford at a relatively small cost evidence on the point whether a larger scheme for the establishment of a central institute of physiology and experimental psychology will be practicable in the future.

It is proposed that the list of annual courses of lectures shall be prepared and advertised during the preceding year, and candidates for the honours school in physiology will be permitted to nominate any two subjects on the published list for the special practical examination. The provisional arrangements are as follows :—

The first course, to begin in May, will be given by Dr. Leonard Hill, F.R.S., on the circulation. Dr. A. D. Waller, F.R.S., will give a double course, on (*a*) signs of life, (*b*) animal electricity. Prof. E. H. Starling, F.R.S., will begin a course, on the sources of animal energies, in October, and Dr. M. S. Pembrey a double course on (*a*) heat, (*b*) respiration.

The arrangements for 1903 are provisionally as follows :—January, Prof. W. D. Halliburton, F.R.S., on proteids, and Prof. W. M. MacDougall, on sense organs ; May, Dr. G. A. Buckmaster, on the blood ; and Prof. J. Bretland Farmer, F.R.S., on vegetable cytology ; in October, Dr. F. W. Mott, F.R.S., on the central nervous system, and Prof. W. R. Dunstan, F.R.S., on a subject not yet announced.

NOTES.

THE determination of the fundamental unit of electrical resistance by the late Principal Viriamu Jones ranks among the most important of such determinations, and justly acquired for him a foremost position among physicists. This determination was carried out by means of a modification of the Lorenz method, and a machine for the purpose, on which he spent 400*l.*, was erected by Principal Jones at the University College at Cardiff. He was, however, of opinion that improvement was possible, and accordingly the Drapers' Company, in 1898, in recognition of his signal services both to science and to education, voted to him the sum of 700*l.* for the construction of more perfect apparatus. This apparatus he proposed ultimately to set up at the National Physical Laboratory, where preparation had been made to receive it. His illness and death prevented the realisation of these hopes, but the Drapers' Company have, with great generosity, and with a view of showing their appreciation of his merits, confirmed their vote and announced their intention of putting the sum of 700*l.* at the disposal of the committee of the Laboratory for the complete equipment of a Lorenz apparatus as a memorial to Principal Jones. The apparatus is to be erected under the supervision of Prof. Ayrton, F.R.S., and the director. This valuable gift has been accepted by the committee of the Laboratory; a tablet will be affixed to the apparatus stating that it was presented by the Drapers' Company in memory of Principal Viriamu Jones and in recognition of his great scientific attainments.

THE annual meeting of the Institution of Naval Architects will be held on Wednesday, March 19, and the two following days. The Earl of Glasgow, president, will occupy the chair. On behalf of the members of the Institution, the council has accepted an invitation to take part in the summer meeting of the Schiffbau Technische Gesellschaft, which is to be held in Düsseldorf on June 2. There will be no regular summer meeting of the Institution this year.

WE much regret to see the announcement of the death of Mr. A. W. Bennett, lecturer on botany at St. Thomas's Hospital, and the author of a number of books and papers on botanical subjects. Mr. Bennett was for several years the sub-editor of NATURE, and was an occasional contributor to these columns up to the time of his death, on January 23. He was sixty-eight years of age.

A MEMORIAL tablet is about to be placed in Harpenden Parish Church bearing the following inscription :—"In affectionate memory of Sir John Bennet Lawes, Bart., F.R.S., born at Rothamsted, December 28, 1814, died at Rothamsted, August 31, 1900. He used his long life and his great knowledge and experience as an agricultural chemist, and as a practical and scientific farmer, in the pursuit of truth, and for the benefit of his fellow men in his own country and in all parts of the world. This tablet is erected by the parishioners of Harpenden and others who deeply feel his loss as an example and friend."

THE Wellington correspondent of the *Times* states that at a public dinner given to the officers and men of the *Discovery* by the Philosophical Institute of Canterbury and the citizens of Christchurch, a number of interesting speeches were made. Captain Scott, who was loudly cheered, replying to the toast of "The *Discovery* Antarctic Expedition," said it was their intention to pass down the 175th meridian a little to the eastward of New Zealand. Then they hoped to pass down the east coast of Victoria Land, leaving records of what they had done. These records could be picked up by any relief expedition that might follow them. Next they would go to the south of