

rays, the arrangements being made to imitate the earth with the sun as kathode. The experiments, of which numerous photographs are given, are exceedingly beautiful, and present distinct analogies with the deductions from the magnetic storms. At the same time, the analogies are by no means conclusive, and may in some cases be very misleading.

The work of analysing each storm independently must have been tremendous, but the results amply justify the work.

It is impossible to enter into details in such a brief review, but we think no serious student of terrestrial magnetism will read this book without feeling that a very distinct step has been made towards the solution of the refractory problem of terrestrial magnetism.

G. W. W.

ROCK-ENGRAVINGS IN SOUTH AFRICA.

MR. L. PÉRINGUEY, in the eighteenth volume of the Transactions of the South African Philosophical Society, continues his report on rock-engravings of animals

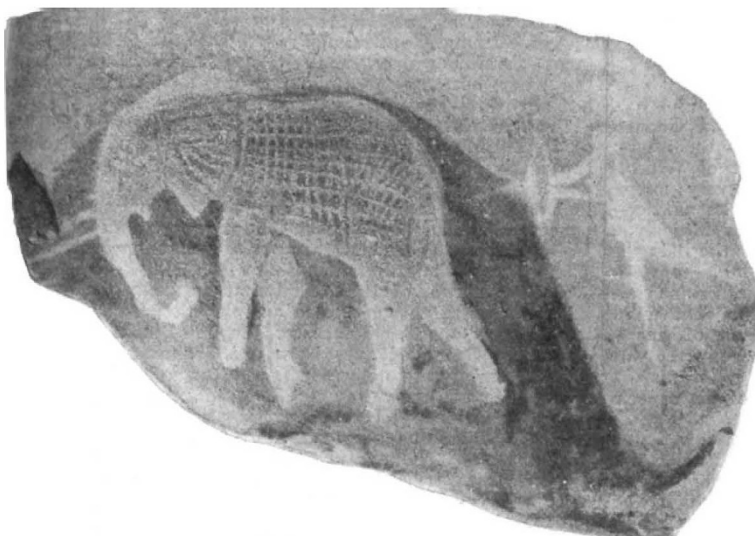


FIG. 1.—Rock-engraving of an elephant and hunter armed with bow and arrow. Size 60×39 cm.

and the human figure. The examples now described are superior in finish and artistic merit to those hitherto known. We have no longer mere lines or outlines produced by rough pointing or punching; the technique is more



FIG. 2.—Rock-engraving of a buffalo. Size 60×40 cm.

elaborate, and the figures are drawn in relief. Thus, in the illustration (Fig. 1) of an elephant fleeing before a hunter armed with a bow and arrow, the lines in relief represent the skin corrugation; and the position of the

ears, the hanging lower lip, the curves c. the back and legs, are all strikingly artistic, and suggest keen observation on the part of the sculptor. Equally artistic is the representation of the buffalo (Fig. 2), the figure of which is fully hollowed out, the attitude of the animal and the twitching of its tail being full of life.

The age of these sculptures is still uncertain. Mr. Péringuey, comparing them with similar rock-engravings in Algeria and the Sudan, and remarking the patination of the rock surfaces, the presence of Palæolithic implements in the neighbourhood, and the absence of scenes representing domesticated animals, believes them to be anterior to the Hottentot immigration. As in Mauretania, the most highly finished sculptures, as well as paintings, are the most ancient, and a decadence of artistic skill seems to have set in with the arrival of the newer immigrants. There is no evidence that these engravings were the work of the Bushmen, and it is equally difficult to attribute them to the Strand Looper Hottentots, whom Dr. Shrub-sall has recently identified on the southern seaboard. On the whole, they suggest intercourse between North and South Africa, a view corroborated by the analogies between the engravings in Mauretania and those of South Africa, the identity of type in the stone implements in both these regions, and other considerations generally accepted by modern ethnologists.

CENTENARY OF THE PHYSICO-MEDICAL SOCIETY OF ERLANGEN.¹

THE Physico-medical Society of Erlangen, founded by Joh. Christian Friedrich Harles in 1808, reached its one hundredth birthday on March 20, 1908, and celebrated the occasion on June 27 by an anniversary meeting and a dinner. The first of the two publications cited below contains (a) a history of the society, by Prof. M. Noelther, of the University of Erlangen, covering eighty-three pages, and illustrated by portraits of Harles, Henke, Leopoldt, Korn, Wagner, Canstatt, Gerlach, Gorup, Zenker, and Beetz; (b) an address, by J. Rosenthal, "Ueber die Beziehungen der Physik und Chemie zu den medizinischen Wissenschaften"; and (c) a report of the anniversary celebrations, by Oskar Schulz.

Honorary doctorships in medicine were conferred on Prof. Becquerel, Prof. Curtius, and Prof. Nernst; doctorships in philosophy were conferred on Sir Victor Horsley, Prof. von Leube, and Prof. von Kries. Honorary membership of the society was conferred, on general grounds, on Queen Margherita, Count Zeppelin, and Dr. Oskar von Miller; of the special sciences, chemistry was honoured by including in the list the names of Bechmann and Buchner; physics was represented by Blaserna, zoology by Dohrn, mineralogy by Zirkel, botany by de Vries, mathematics by Poincaré, geography by Günther, physiology by Pflüger, anatomy by Roux, and the medical sciences by Erb, Ehrlich, Kocher, and Kraepelin. Amongst the new corresponding members we notice the names of Prof. Rutherford, of Manchester, and Prof. Sherrington, of Liverpool.

The *Sitzungsberichte* for 1907, sent out with the report of the centenary, is a bulky volume containing seventeen scientific communications. Nearly half the volume is devoted to a memorial notice of Henri Moissan, written by Gutbier, and extending over 260 pages; a complete list of Moissan's papers is given, and his work on fluorine, boron, silicon, ammonium, calcium, diamond, the

¹ (1) Festschrift der Physikalisch-medizinischen Societät zu Erlangen, zur Feier ihres 100 jährigen Bestehens am 27 Juni, 1908. Pp. ix+124. (Erlangen: Kommissionsverlag von Max Mencke, 1908.)

(2) Sitzungsberichte der Physikalisch-medizinischen Societät in Erlangen. Redigiert von Oskar Schulz, 30 Band, 1907. Pp. xxiv+562. (Erlangen: Kommissionsverlag von Max Mencke, 1908.)