

continuity of strata can be made out from the bird's-eye view of country in which the ground worker is baffled at close quarters by the confusion of detail resulting from erosion, accumulations of detritus, and the presence of false dips due to local and superficial collapse of strata. The observer is warned against reading 'strike' into a banding due to the parallel alignment of superficial sand dune accumulations; furthermore, where dips are slight, it is often impossible to determine in which of the two possible directions they lie, and for this ground-leveling is required.

It was in bare featureless plains devoid of rock exposures that the most remarkable results were obtained. Sometimes it was possible to detect geological structures of great importance where the absence of outcrops presents an insurmountable obstacle to ground survey. Here a pattern can be discerned which the geologist can recognise at once as that of a geological map, and in one case the proved structure of an area with abundant outcrops was followed into adjacent lowlands the geological structure of which has hitherto remained hidden. Such pattern is due to the different appearances of soils to the 'actinic eye' of the camera. Clearly these soils have developed from the weathering of the rocks beneath them, the disposition of which they thus reveal. Pattern may be seen through thin parched grass but it is lost with a fresh luxuriant growth, and the survey must be made when the conditions are favourable.

Some success was achieved in gleaming information regarding the geology of heavily forested regions, and much may be expected from the further development of this line of attack on a type of country which is the despair of the investigator on the ground.

L. H.

University and Educational Intelligence

LONDON.—The following appointments to University readerships have recently been made: botany (Birkbeck College), Dr. F. C. Steward, since 1929 assistant lecturer in botany in the University of Leeds; epidemiology and vital statistics (London School of Hygiene and Tropical Medicine), Dr. A. B. Hill, who since 1923 has been carrying out investigations and research at the School.

The title of emeritus professor of eugenics in the University has been conferred on Prof. Karl Pearson, on his retirement from the Galton chair of eugenics at University College, and that of emeritus professor of Egyptology in the University on Sir Flinders Petrie, on his retirement from the Edwards chair of Egyptology at University College.

The following degrees have been awarded: D.Sc. to B. F. Barnes (Birkbeck College) for ten published works on botany; D.Sc. to J. C. F. Hopkins (King's College) for ten published works on plant pathology.

MR. THURKILL COOKE, a member of the General Committee of the British Association, has offered to present to the universities of England a collection of works on nautical science. The first presentation under the offer has been made to the University of London. Librarians of English universities desirous of receiving such accessions should communicate with the Assistant Librarian, British Library of Political Science, Houghton Street, W.C.2.

Science News a Century Ago

Royal Society, January 9

The portrait of the late president, Davies Gilbert, painted by Thomas Phillips, R.A., at the solicitation of several members, was, by their request, presented to the Society. A paper was read on 'The Empirical Laws of the Tides in the Port of London'. By the Rev. William Whewell, F.R.S., Trinity College, Cambridge. The author regards existing tide tables as extremely imperfect; the mathematical solutions of the problem founded on hypotheses remote from the real facts. The Earl of Tyrconnel was elected into the Society.

The Royal Medals of the Royal Society

The January issue of the *Gentleman's Magazine* in 1834 contained an excellent notice of the anniversary meeting of the Royal Society. The Duke of Sussex made a statement relative to the Royal medals placed at the disposal of the Society by His late Majesty in 1828. Mr. Chantrey, in conjunction with Sir Thomas Lawrence, was appointed to prepare a design. Either from indecision, or that procrastination for which the late president of the Royal Academy was characterised, the design was never furnished, although it was a frequent and favourite theme of conversation. After an inquiry, steps were taken, however, to redeem all the pledges made by George IV to the Royal Society. The *Gentleman's Magazine* records the awards of ten medals to the following, and the reasons: Dr. Dalton, to whom was owing the development of the atomic theory; although at the eleventh hour, it was gratifying to know that he was acknowledged as its author both at home and abroad; to Mr. Ivory, the first English philosopher who introduced to Great Britain the beautiful and refined discoveries of Laplace, Lagrange and other foreign astronomers; to Sir Humphry Davy and Dr. Wollaston in testimony of services in science; to Prof. Struve, for researches respecting double stars; and to Prof. Encke, the greatest, perhaps, of modern astronomical calculators, and the discoverer of the comet which bears his name. The Duke of Sussex alluded to Sir John Herschel as one who had terminated his European labours; and a rich harvest was to be expected as the result of his labours in the ample field of a new and unexplored heaven.

The *Mechanics' Magazine*

The issue of the *Mechanics' Magazine* for January 4, 1834 opens with a reprint of a paper by Dr. Robert Hare, then professor of chemistry in the University of Philadelphia, on a galvanic rock-blasting apparatus, in which the use of electricity is advocated for mining. This is followed by a reprint of a paper by Mr. Sang, of Edinburgh, on the relation of a machine to its model. Next there is correspondence on canal improvements, and on the performances of the steam carriages of Hancock and Maceroni, followed by a note on isometric projection and a letter from John Ericsson on his caloric engine. Of considerable interest are the notices of the activities of two societies. The Marylebone Literary and Philosophical Society, it was stated, was in a very flourishing condition and had bought 17 Edwards Street, Portman Square, where it was proposed to erect a lecture