

have been recorded from Tropical Africa previous to those described by Mr. Seton-Karr, if the identification of some of the specimens as paleolithic is verified, the discovery is a very important one.

IN nearly every county of Central and Northern Indiana there occurs a kind of black soil, often spoken of as "bogus land." It is also sometimes called "alkali," but not correctly, for the land has none of the essential characteristics of alkali soil. The improvement of these hitherto unproductive black soils is the subject of a *Bulletin*, by Mr. H. A. Huston, published by the Agricultural Experiment Station of Purdue University, Lafayette, Indiana. It is asserted that thousands of acres of such soil are susceptible of amelioration to such an extent as to be made the most productive maize lands in the State. The use of straw or kaint has proved very profitable as a means of temporary improvement, but for permanent improvement a resort to efficient drainage—and that of a special kind—is essential. It is strongly recommended that, before incurring any other outlay, a preliminary survey of each area should be made, and the system of improvement determined according to the results of such survey.

PROF. H. G. SEELEY, F.R.S., will begin the summer course of lecture-excursions with the London Geological Field Class at the end of April. The subject of the series will be the Physical Geography and Geology of the Thames and its Tributaries. This is the eleventh annual course. Mr. R. Herbert Bentley, 31 Adolphus Road, South Hornsey, N., is the hon. secretary to this society, which gives a systematic course of teaching in the open country.

THE *Proceedings* for 1895 of the Agricultural Research Association, the organ of the Research Station, Glasterberry, Milltimber, Aberdeen, contain reports by the Director, Mr. Thomas Jamieson, on the securing of crops, on the permanence of manure, on the "furrow-system" of sowing grain, on the mechanical conditions of soils as affecting the growth of plants, on the mechanical analysis of soils, and on new manures.

THE Danish Meteorological Institute has recently published a valuable series of observations made in the Isle of Denmark, Scoresby Sound, lat. $70^{\circ} 27' N.$, long. $26^{\circ} 12' W.$ From September 18, 1891, to July 31, 1892, meteorological observations were made every hour, under the direction of Mr. C. Ryder, the chief of the expedition. The mean temperature of the six months from November to April ranged between $1^{\circ} 4$ and $-13^{\circ} 9$ F. From the beginning of May the cold began to diminish, and in July there was only a frost on one day. The absolute minimum occurred on March 7, when the thermometer fell to -52° , and the absolute maximum amounted to 58° on July 13. The wind was usually very light, while calms were very prevalent, amounting to about 80 per cent. Snow, and occasionally rain, fell on 131 days out of 318; neither hail nor thunderstorms occurred during the period of observation, but fog and mist were very frequent, especially between December and June. Aurora borealis occurred on 142 nights out of 183 between October and March; this phenomenon is made the subject of a special discussion.

THE additions to the Zoological Society's Gardens during the past week include a Moustache Monkey (*Cercopithecus cephus*, ♂) from West Africa, presented by Mrs. Polini; two Rhesus Monkeys (*Macacus rhesus*, ♀♀) from India, presented respectively by Mr. C. Harmer and Mr. C. T. Trevalyan; a — Boa (*Boa* —) from Dominica, presented by Mr. W. Weldon Symington; a Barnard's Parrakeet (*Platyercus barnardii*) from Australia, deposited; a Raccoon-like Dog (*Canis procyonides*) from Japan, two Elliot's Pheasants (*Phasianus ellioti*, ♂♀), two Bar-tailed Pheasants (*Phasianus reevesi*, ♂♀) from China, two Rosy-billed Ducks (*Metopiana peposaca*, ♂♂) from South America, purchased.

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OUR ASTRONOMICAL COLUMN.

THE ROYAL OBSERVATORY AT EDINBURGH.—The new Royal Observatory, which has been in course of erection on Blackford Hill, to the south of Edinburgh, during the last four years, was formally opened by the Secretary for Scotland, Lord Balfour, on Tuesday. A short article in the *Times* reminds us that the observatory owes its origin to the presentation to the Scottish nation by the Earl of Crawford of the splendid collection of instruments in his private observatory at Dun Echt, in Aberdeenshire, which was followed by the appointment of Dr. Ralph Copeland, the superintendent at Dun Echt, as Astronomer Royal for Scotland and Professor of Astronomy in the University of Edinburgh in 1889. As there was not sufficient accommodation for the new instruments in the old buildings on the Calton Hill, it was resolved to erect a new observatory worthy of the nation and of Lord Crawford's munificent gift. A Government grant of £33,000, afterwards increased to £36,000, was obtained, and the Town Council of Edinburgh granted on easy terms a site deemed in all respects suitable, on the eastern crest of Blackford Hill, which possesses exceptional stability, a convenient elevation, and unusual purity of atmosphere, the smoke nuisance intruding itself only in one day out of eighteen.

The buildings consist of the observatory proper, the official residence of the Astronomer Royal, the residence of the assistant astronomers, and subsidiary buildings. The observatory is a T-shaped building, the head of the T facing the north with a frontage of 180 feet, and having at each end a telescope tower, of which the eastern is 75 feet high and 40 feet in diameter, and the western is 44 feet by 27 feet. The former contains the most important instrument in the observatory—a new refracting telescope of 15-inch aperture. The latter contains the reflecting telescope, removed from the Calton Observatory, which has an aperture of 2 feet, and which is to be used in astro-physical researches.

Among the other instruments in the observatory are a meridian circle, $8\frac{1}{2}$ inches in diameter; a self-recording anemometer; an ingenious chronograph; the telescope with which the late Prof. Piazzi Smyth made most of his observations on the Calton Hill; several good spectroscopes; a reversing transit instrument; and the clock, connected by wire with Greenwich, which fires the daily time-gun at Edinburgh Castle and drops the time-ball on the Nelson Monument. Connected with the observatory, there is a well-equipped photographic laboratory, and a library with accommodation for some 30,000 volumes, which is already well furnished with the treasures of the Dun Echt collection.

COMET PERRINE-LAMP.—The Perrine-Lamp comet was observed at the Astro-Physical Observatory, South Kensington, on the 1st inst., and spectroscopic observations were made by Mr. Shackleton. On account of the faintness of the comet the spectrum was weak, but a fair amount of continuous spectrum was seen, with three maxima in the green blue, which in all probability correspond to the carbon bands, as they had the same relative positions; this, however, could not be verified by direct comparison.

BOGGIANI'S RECENT EXPLORATIONS AMONGST NATIVE TRIBES OF THE UPPER PARAGUAY RIVER.

THE country along the upper course of the Paraguay has recently been attracting the attention of men of science. A short time ago naturalists were aroused by the wonderful discovery made by Dr. Bohls of *Lepidosiren paradoxa*, that rarest and strangest of fish, living in abundance in lagoons in the Lengua territory of the Gran Chaco, not very far from the right bank of the Paraguay.

I now intend to give a short account of the ethnological results of the explorations of an Italian artist, Cavaliere Guido Boggiani, who, little more than three years ago, lived amongst two of the less-known native tribes, further north, on both sides of the Paraguay River. They are the *Chamacocos* and the *Caduveos*. Boggiani brought home extensive ethnographical collections from both, which he has described in lectures delivered at Rome and Florence, recently published in elegant