

the *setts*, it continues to grow on their surface, and if the vegetation, which rises two or three metres above the water, is burnt, it soon reappears again, reaching a height of one metre and more after eight or ten days. The thread-like roots of the grass form a kind of rough felt, in which palms are sometimes inclosed, whilst masses of ooze fill up the interstices between the roots, and form thus true dams across the river. When the barrier has not yet reached a great size, it might be occasionally destroyed by the pressure of water accumulated above it; but, as several barriers are formed at the same time at various places, the upper one being destroyed, its *débris* is brought to the lower one, and accumulates above it, or presses beneath it. The elasticity and tenacity of these dams is so great that a steamer attempting to enter it is soon repelled by the elasticity of the grass, while men and even cattle can easily stay on the floating grass without danger. The river is thus soon transformed into a marsh covered with a mighty grass vegetation, and the water expands to the neighbouring *maije*, seeking its way through many new channels. It is obvious that those parts of the river where its bed is more definite are especially liable to be obstructed by grass islands which are formed in those parts of it where there is no definite frontier between running water and marsh. As to the appearance of *setts*, M. Marno is of opinion that they have become more frequent during these last years; he sees in their frequency a proof of the gradual levelling of the whole region by fluvial deposits and of the general transformation of the whole of the region into marshes. The high floods of 1878 have largely contributed to the formation of numerous floating grass islands and to the formation of several large barriers across the river. Of course any hydrographical works for preventing the formation of grass obstructions would be very difficult now, owing to the scarcity of population; but the planting of papyrus palms along the banks of the chief channel would be most useful, as it would prevent the floating grass islands formed in the *maije* from entering into the main channel of the Nile.

THE WEATHER OF NOVEMBER, 1881

THE weather of November last has been in many respects so unusual as to call for a brief record of its chief characteristics. For thirteen months previously the immense majority of the depression-centres, or centres of the storms which swept across North-Western Europe, passed to the southward of the northern half of the British Islands, and many of them wholly to the south of these islands, with the inevitable result of unseasonably cold weather to the north of these storm tracts. But early in November an important change set in, and up to the time of going to press the change has been an enduring one, viz. the storms of North-Western Europe have swept eastward along tracts wholly to the westward and northward of the British Islands, with the necessary result of a temperature very greatly in excess of the average of the month.

From Buchan's isobars for the month we see that the mean increase of atmospheric pressure from the Butt of Lewis to Valentia, in the south-west of Ireland, is about 0.100 inch; but in November last the increase amounted to 0.348 inch, the means of these places being respectively 29.391 inches and 29.739 inches. The increase from the Butt of Lewis to Dover was still greater, amounting to no less than 0.605 inch, instead of 0.150 inch, the normal difference. It is premature to state the locus of the centre of this extraordinary barometric depression till fuller observations have been received; in the meantime, however, a position in the Atlantic, a little to westward of the Hebrides, may be provisionally assumed as the centre with but a small limit of error.

The most important result of this abnormal diminution of atmospheric pressure in the north-west, and rapid increase southward, has been a prevalence of winds from the Atlantic, characterised by a force and a persistency quite unprecedented during the last quarter of a century, with a distribution of temperature and rainfall over the British Islands very remarkable and in some respects strikingly abnormal. As these winds from the Atlantic swept across and reached the east of Scotland, their direction took a more southerly, and in the north a more south-easterly course.

Everywhere the temperature was abnormally in excess -- the smallest excess, about 3°.5, being on the coast in the north; and the largest excess being in the interior, as happens with high temperatures at this time of the year, since in such circumstances the cooling through terrestrial radiation is relatively much less than usual in strictly inland situations. The greatest excess would appear to have occurred in the higher parts of the valleys of the Thames and Trent in England, and of the Clyde and Tweed in Scotland, where it reached, or closely approached to, 6°.5 above the means of November for the respective districts. In London and Edinburgh the excess was 6°.0.

On comparing this excess for Edinburgh with the observations made in that division of the British Islands during the past 118 years, or since 1764, the mean temperature of November, 1881, is absolutely the warmest on record, the nearest to it being an excess of 5°.5 in 1818, and 5°.2 in 1792 and 1847. As regards London, the temperature of November 1818 and 1852 somewhat exceeded that of 1881, the former of these years being also unusually warm in Edinburgh, whereas there November, 1852, was colder than the average.

The distribution of the rainfall was strikingly unequal in North Britain, or where the prevailing winds curved round more towards a southerly and south-easterly direction. On the high ground sloping up on both sides to the Lead and Lowther Hills the rainfall at many places considerably exceeded double the average of the month. On the other hand to the north of the Cheviots and Lanmermoors the rainfall was under the average, the amount in East Lothian being less than half the average. Crossing the Firth of Forth, we meet an extensive tract reaching as far as the high grounds of the Grampians, where the rainfall was excessive, amounting in West Perthshire and Upper Dee to more than double the average. Again, beyond the Grampians, and including the whole of the North of Scotland, northward and westward to the extreme north of the Lewis, the fall was less than the average, the amount on the south shores of the Moray Firth being only half the average. It is worthy of remark that this distribution of the rainfall is precisely the opposite of what occurs with weather very similar, but with the single difference of the south and south-east winds being replaced by north and north-east winds, in which the foreshores of the Forth, Moray, and Pentland Firths facing the north are deluged with rains. In the east of England the rainfall was, generally speaking, light, but it was above the average in Ireland, and in a less degree in the west of England.

Out in the Atlantic, along the great routes of traffic to New York, the month would appear to have been characterised by an almost unbroken succession of storms, several of which, if judged by their destructive effects on even well-appointed sailing-vessels and steamers, were memorably great storms. The storm which reached the west on the 21st will be long remembered for the furious winds and extraordinarily high and destructive tides which accompanied it; and the storm of Sunday, the 27th, for its most disastrous effects, particularly in the south, and for the unprecedentedly low readings of the barometer in the north-west and north of Scotland, where, over a wide area and for a considerable time, atmo-

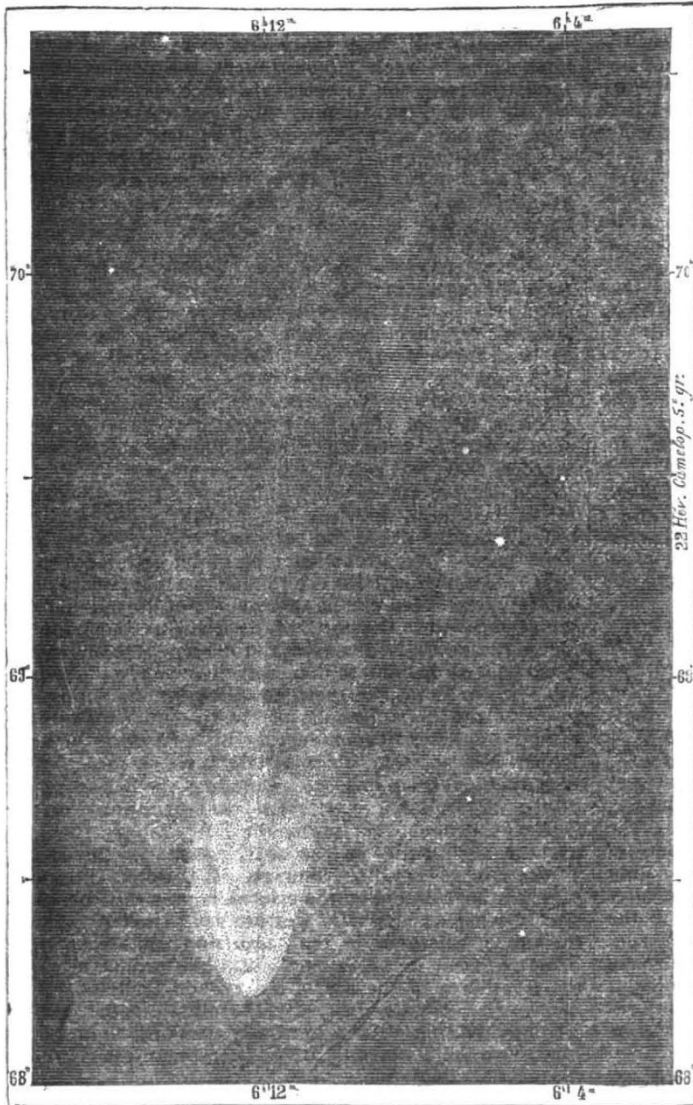
spheric pressure was under 28·000 inches, the lowest being 27·865 inches at the Butt of Lewis, at which low point the barometer stood from 4.30 to 7 a.m. of the 27th.

PHOTOGRAPH OF COMET B, 1881

PHOTOGRAPHY has already proved of great service to astronomy, and its value in reproducing with un-failing accuracy and permanently preserving an observation is evident. It is long since the art has been utilised in the observation of eclipses; with De La Rue's

to the circumstances under which the photograph of the comet was taken. It was obtained on July 1, 1881, at oh. 37m. under the following conditions:—The operators used a telescope of half a metre aperture and 1·60m. focal length. The plates of gelatino-bromide of silver, extra sensitive, were manipulated and developed in darkness. The time of exposure was thirty minutes. Arrangements were made to counteract the proper movement of the comet in addition to the diurnal movement. The impression of the tail extends to more than 2½ degrees; and the head of the comet assumed very great dimensions;

but the details of the tail show that the movement of the instrument has kept pace with that of the object. The rectilinear rays are a revelation of the photograph, which moreover shows some very small stars not seen in any celestial atlas.



Facsimile of a photograph of the Great Comet B 1881, taken at the Observatory of Meudon, July 1, 1881.

photographs of the moon we are all familiar, while those of sun-spots have recently attained a rare degree of perfection. And now at last photography has been successfully applied to comets by Dr. Janssen at the Meudon Observatory, Paris. The woodcut we give to-day of Comet B is from our French contemporary *La Nature*, and has been revised by Dr. Janssen himself, so that it may be accepted as a faithful reproduction of his photograph. Dr. Janssen also gives some interesting details as

to the right side and below, for the right basal portion is totally distorted.

Wishing to know something positive as to the custom in Borneo, I wrote to the well-known naturalist and collector, Mr. Everett, who is now living in Papan, North Borneo, and who sojourned a long time in Sarawak before. Mr. Everett had the kindness to answer, in a letter dated August 25, 1880: "With regard to the custom of flattening the skull, I have heard that it is

ON ARTIFICIAL DEFORMATION OF THE HUMAN SKULL IN THE MALAY ARCHIPELAGO

MR. CROCKER mentioned, in the *Proceedings* of the Royal Geographical Society of London in the beginning of this year, that the Milanows, a coast tribe in North-West Borneo, between Bruni and Tandjong Agri, Sarawak, flatten their heads by means of pressure in infancy, but not to the extent of disfigurement, a custom, Mr. Crocker adds, which is peculiar to this tribe, and occurs nowhere else in the Archipelago.

This last statement induces me to show that, on the contrary, the custom is spread through the whole vast area from Sumatra to Timorlaut, and north to the Philippines; I even believe that it is not going too far to say that almost no large island within this region can be found, where the custom of artificial deformation of the skull is not, or has not been in use. Having treated of the geographical distribution of the custom all over the globe in a paper "Ueber künstlich-deformirte Schädel von Borneo und Mindanao im königl. anthropologischen Museum zu Dresden, nebst Bemerkungen über die Verbreitung der Sitte der künstlichen Schädel-Deformation," I shall restrict myself here to the Malay Archipelago.

To begin with Borneo: I procured last year a skull from Sarawak, over which a basket of ratan was so closely twisted, that it could but with difficulty be freed. When taken out I immediately perceived that it must have been artificially deformed; the whole occiput was flattened in a way which could not have been due to other causes. This skull (Fig. 1) must have hung a long time in the basket over a fireplace, for it was blackened and dusty all over. The direction of the pressure in youth had been, besides perpendicularly from behind, from