has been allowed to evaporate, as tested by the smell. The solution is also carefully filtered before use, and diluted to a small extent. After from three to ten minutes or more in the carmine solution, the section is placed in distilled water and thoroughly washed for some time by blowing into the water with a small pipette. From this the section is removed momentarily to a watchglass containing distilled water and two drops of acetic acid, and then is placed in absolute alcohol. The water is thus removed, and in five or ten minutes the section may be placed in oil of cloves, which renders it very transparent. From this it is removed to the glass slip, and is mounted in a solution of gum damara in turpentine, such as is sold by artist's colourmen. At any stage in this process we can proceed back again by the same steps, ammonia being used in place of acetic acid, and re-stain, re-wash, or re-acidify as the case may be. If the staining is carefully managed and the subsequent washing a thorough one, most cellular structures are very beautifully and clearly brought out. Where rapidity is desired, and for the purpose of inspecting a specimen, it may be simply mounted in glycerine after the staining. The process above described is that of Gerlach and Stieda, and is preferred to any other by some observers of great experience. Thus Dr. Meynert, of the lunatic asylum at Vienna, who is throughout Germany regarded as the great authority on the histology of the brain, uses this method for mounting his sections of cerebrum, cerebellum, &c. It is very convenient to have little glass dishes with covers for each of the above-mentioned re-agents, so that the sections may be passed from one to the other and left covered up, if desired, for a day or two—the waste of re-agents involved in filling watch-glasses each time they are required being also avoided. If preparations have been preserved in chromic acid, they must be very well washed before staining, and very often cannot be made to stain well at all. Various methods are useful in various cases, but, as one of great general use, the carmine staining and oil of cloves clearing may be strongly recommended. Staining tissues with nitrate of silver, chloride of gold, and with bile-pigment are most important aids to the histologist, the merits of which have been recently much discussed, and of which we shall have a word to say from experience.

Glycerine Jelly.—This composition, which has been lately introduced, melts at a lower temperature than Deane's medium, and has a greater clearing action on the objects mounted in it. A small piece of the jelly put on a glass slip and warmed, soon liquefies, and is ready to receive any object, after which the cover is directly applied. For objects which do not require any great amount of "clearing," it is a most useful medium. Insects, worms, small crustacea, &c., may be mounted in this way excellently. E. RAY LANKESTER

METEOROLOGY OF JUNE 1870

I BEG to send you a few particulars of the weather of the past month (which was characterised by unusual atmospheric phenomena), deduced from daily observations with standard instruments, the place of observation being in latitude 51° 27′ N., longitude 0° 18′ W., height above sea level 64 feet.

The barometrical readings have been corrected for capillarity, index error determined by comparison at the Royal Observatory, Greenwich, and certified by James Glaisher, Esq., F.R.S., and reduced to 32° Fahr. and mean sea level.

The thermometrical readings have been corrected for index error determined by comparison at the Kew Observatory of the British Association.

Time of observation, thermometer $7^h\ 45^m$ A.M., barometer $8^h\ 0^m$ A.M., wind direction $8^h\ 30^m$ A.M., daily (approximate).

The following are the calculated monthly means, &c.

Mean height of the barometer (corrected) . .	30·135 in.
Highest observed reading	30·551 in.
Lowest observed reading	29·747 in.
Monthly range	0·804 in.
Mean temp. air ($7^h\ 45^m$ A.M.)	60·8°
,, ,, of evaporation	55·3°
,, ,, of dew point	50·6°
Relative humidity (dry air = 0, saturation = 100)	70
Mean of the maxima	75·1°
Mean of the minima	51·2°
Mean diurnal range of temperature	23·9°
Extremes { Highest reading (June 22) . .	91·4°
Extremes { Lowest reading (June 6) . . .	41·6°
Monthly range of temperature	49·8°
Mean estimated force of wind (0 to 6) . . .	1·5
Total rainfall	0·597 in.
Days on which rain fell	5
Evaporation on 22 days	3·652 in.
Mean intensity of ozone (24h)	2·5

*** Sun at greatest meridional altitude (year) or greatest N.D. June 21st.

A lunar halo (or portion of a circle) was observed on June 9 shortly after 10^h P.M. (or 10^h astronomical time). Its estimated extent was 270° of a circle whose diameter was 60°. Estimated altitude of the moon at time of observation, 35°.

A thunderstorm occurred on the 16th, with very vivid lightning, yielding 0·355 inch of rain, which was equivalent to 7987·5 gallons, 1288·65 cubic feet, or 35·9 tons per acre, assuming the rainfall to be equally distributed, which may be done with some degree of truth, as the amount measured at the Kew Observatory, one mile distant, agrees with mine to the second decimal.

The atmosphere was moderately charged with moisture during the month, which must have been an assistance to vegetation in spite of the excessive drought.

The rainfall during this month was 0·558 inch less than that registered during the corresponding period last year.

Wind directions in the lower regions of the atmosphere were observed on 12 out of 16 points, the prevailing directions being between W. and S.W. points.

Richmond, Surrey, July 7 JOHN J. HALL

THE ROTUNDITY OF THE EARTH

"PARALLAX" is not dead yet. His backer, Mr. John Hampden, has again brought his sophisms and his misstatements before the public in the form of a periodical called the *Armourer*, which has already had one period of existence, having been discontinued about four years since, "amidst the regrets of hundreds of its readers," as the editor asserts. When Mr. Hampden speaks of the recent experiment by which the falsity of "Parallax's" views was exposed, as "the Bedford Canal swindle," of Mr. Wallace's victory as having been obtained by "Scotch knavery and cunning," and of the conduct of the editor of the *Field* as umpire as having been "false, unfair, and fraudulent," we may well leave these charges to be replied to by these gentlemen themselves, or by the law. As, however, "Parallax" repeats unblushingly his assertion that he has for years propounded his views by lectures in various parts of the country without their having been once refuted, we may call to his remembrance a circumstance which he has probably found it convenient to forget. During the recent experiments at the Bedford Level, "Parallax" carefully concealed the fact that the very same test had been previously applied. In the year 1856, however, after a lecture by "Parallax," at Norwich, two gentlemen challenged him to an experimental proof of his views. He accepted the challenge and was invited to witness the experiment, which invitation, however, he did not respond to, but prudently left the town in the interim. The nature and result of the experiment are detailed in a printed slip which was inserted at the time in the local papers, and a copy of which we append:—

COPY OF AGREEMENT.—We, the undersigned, "Parallax," of No. 61, Upper North Place, Gray's Inn Road, London, on the one side, and John Weir, of No. 14, Suffolk Street, Union Place, Norwich, and Charles William Millard, of Prince's Street, Norwich, on the other side, having different opinions as to whether the Earth be a Plane or a Globe, agree to test the accuracy of our respective opinions in the following manner, that is to say, to place four flags in a straight line, intersecting the River Yare between Strumpshaw or Bradestone and Norton, for a space of not less than four miles, or six miles if possible. The flags to be at the same height above the water except the