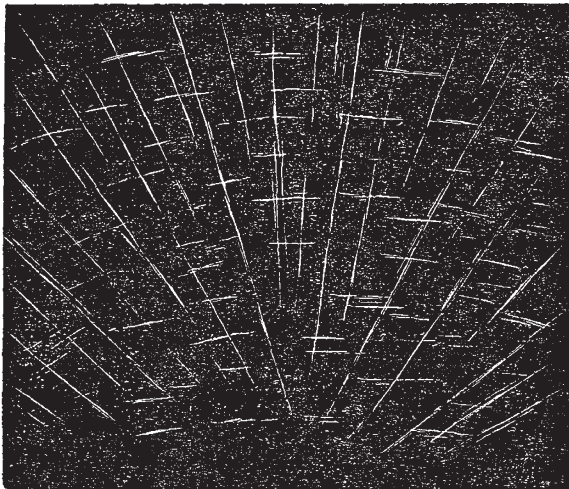


Between August 19 and September 9, the average of ozone registered was very great, being about eight by Schönbein's test-paper. On the five days ending September 9, the quantity each morning was nine. During the longer period mentioned, humidity was also in excess. Rain fell every day from September 1 to 9.*

The weather during the last month has been very pleasant—we have not had more than one really wet day, and rain has generally fallen in the night. Though there have been no thunderstorms, we have had evidence of their occurrence in other parts by the presence of electrical cumulus. But the most remarkable phenomenon in connection with electricity was the appearance of an Aurora Borealis in the daytime, which happened on



the afternoon of September 4. I pointed this out (about 4 P.M.) in the form of thin reddish streaks resembling linear cirrus, which radiated in a symmetrical manner from the north, at the same time anticipating a luminous appearance after nightfall. This took place: yet the light was not in the northern part of the heavens, but stretched clear across from W. to E. in a broad band of glowing white light. Fainter streaks appeared afterwards in the north. A dark cirrus mist overspread the sky at the time.

The radiating cirrus, or Auroral cloud that appeared in the daytime, was crossed by lighter streaks, as in the accompanying sketch.

The day previous this phenomenon was seen at Edinburgh, and also in this neighbourhood, though I did not observe it.

These manifestations, followed each time as they have been lately by change of weather, seem to confirm the theory of Mr. Buchan and M. Silbermann; and I could adduce other observations pointing to the same inference, viz. that the Aurora Borealis is an atmospheric phenomenon, connected with the polarisation of vapour.

Great Malvern, Sept. 12

S. B.

Aurora Borealis

ON going out this evening I saw a very fine Aurora Borealis, which literally covered the whole sky to within 15° of the southern horizon. The streamers were of a yellowish white colour, but at times very decidedly red. They shot up from the east, north, and west strongly, feebly from the south. The radial point was within 5° of Scheat (β Pegasi) A.R. $22^h 56^m$, Dec. N. $27^\circ 15'$.

This radial point remained constant for about one hour and a half, when it suddenly shifted, at 11.30, to within 5° of the zenith towards the east.

The light was sufficient during the flashes to see my watch, and read the second hand with ease.

Altair (α Aquilæ) was quite blotted out by the glare as it passed over; also the stars in Cygnus and Andromeda.

I used a spectroscope on the light, and found that I could distinguish the bright line near the group of calcium lines (wave-

length 5,567) almost anywhere I pointed to in the sky, excepting on the south horizon; while to the north, I not only saw the bright line, but also others apparently near F, one bright, the other very faint.

I hope that there will be other notices in your paper of this very fine Aurora.

My latitude is N. $57^\circ 8' 56''$.

LINDSAY

Dun Echt, Aberdeen, Sept. 24

A MAGNIFICENT display of Aurora Borealis was observed here this evening, between 9^h and 12^h P.M. During the early part of the morning the suspended magnets were so much disturbed that I considered it useless to continue a series of absolute determinations of the magnetic elements on which I was engaged. The auroral display when first noticed bore a very striking resemblance to the effect produced by a brisk and squally wind passing over an otherwise calm lake. Magnetic clouds overspread the northern half of the sky, and were abruptly terminated by an irregular arch, stretching from the magnetic E. to W., and passing almost through the zenith. This arch was never very well defined, but it served for some time as an apparent barrier to the rapid passage of the waves of magnetic light from the N. towards $9^h 45^m$ P.M. The whole N. horizon was brilliantly illuminated, but in some points more so than in others, and from these points broad streamers darted forth, extending often from the horizon to the zenith. Several of these stupendous beams of light, many degrees in breadth, were sometimes seen at once, and occasionally the whole N. horizon shot forth these brilliant streamers. The colour of the beams was often red, but more frequently white, but many changed from white to red, or red to white, before vanishing from sight. The sky at times was partly of a deep red hue.

At $10^h 45^m$ some of the beams assumed a more stationary character, and radiated from a point some 70° above the E.S.E. horizon. The whole sky then became covered for a short time with the magnetic clouds, which were rarely dense enough to obscure stars of the second magnitude. At about eleven o'clock the phenomenon again completely changed, returning suddenly to its former aspect, of a lake violently agitated by a gusty wind, which brilliantly lit up the thin clouds as it passed rapidly onwards from the N. Towards midnight the activity of the forces considerably abated.

During the storm the vertical force magnet was completely thrown off balance, and the declination and horizontal force magnets suffered considerable perturbations.

Stonyhurst, Sept. 24

S. J. PERRY

Botanists and the Halfpenny Postage

FOR several years I have been in the habit of sending herbarium specimens by "book post," by merely placing the plants between sheets of white cardboard, which were invariably fastened by string, without wrappers, and the address written on the cardboard itself; so that, in fact, the parcel was open at both ends and sides. On Tuesday last I did up a small packet of green or living plants, and sent them to the village post-office. As the parcel weighed under four ounces, I affixed two halfpenny stamps. On calling at the post-office the next day, imagine my disgust at seeing my parcel of plants stuck up in the window to be sundried! Upon inquiry, I found that the postman had very wisely declined taking it to the borough office, as "several similar parcels were lying about there now, and would not be forwarded until the senders had prepaid the postage at letter-rate."

I say the postman acted wisely in refusing to take my parcel, because, on taking it to the Newbury post-office myself on Thursday, I found that unless I paid eightpence, or rather put on seven more penny stamps, double that amount would have actually been charged to the recipient, at which I should have felt much grieved, as the specimens were really not worth half the amount.

Another gentleman of my acquaintance sent a parcel to the same office with a fourpenny stamp on; this the clerk kindly defaced, and returned the parcel as "not sufficiently paid!"

I have read the new rules, and can see no clause bearing on this subject—either for or against herbarium specimens, or other objects of natural history, being sent between cardboard with open ends at the old rate of four ounces and under for one penny, and should therefore be glad of any correct information from you or the readers of NATURE.

East Woodhay, Oct. 7

HENRY REEKS

* The above notes were taken by Mr. R. J. Wood.