

It is also, of course, important that the half-dead leaves should hang long on the trees, so as to develop their full colouring before being blown off by the wind.

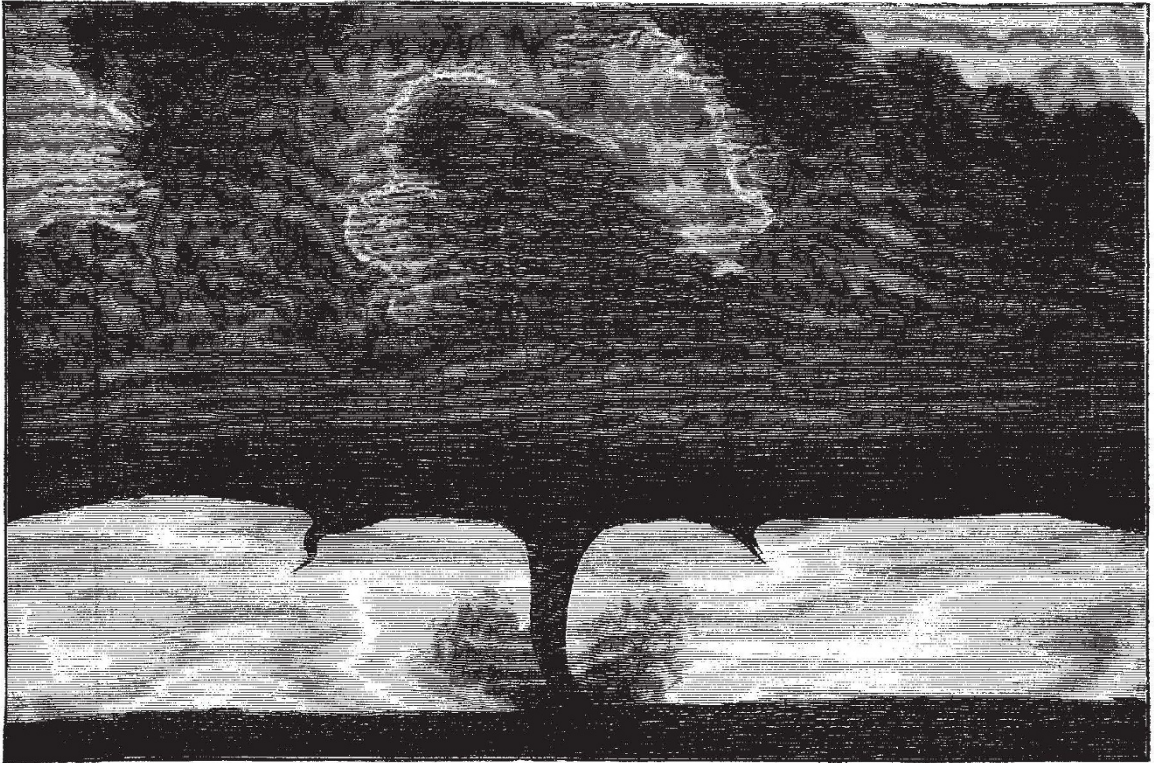
Taking thus all the facts into consideration, it appears clear that all the bright and beautiful tints of autumn are merely the earliest stages of decomposition, and are due to the more or less considerable triumph of chemical forces over the weakened or destroyed vitality of the living plant. One cannot but feel that this is a very unpoetical way in which to regard the magnificent tints of a fine autumnal landscape, but it is no less true than that the coloured clouds of evening mark the departing day.

H. C. SORBY

A TORNADO PHOTOGRAPHED

I SEND you to-day a photograph of a genuine Dakotah cyclone, or, rather, tornado, which was taken by F. N. Robinson, Howard, Miner County, D.T., August 28, 1884. The storm passed twenty-two miles west of the city. It was first noticed at 4 o'clock p.m., moving in a southeasterly direction, remaining in sight over two hours; killing several people, and destroying all property in its course. I believe it to be unique as a portrait of this class of storms, and I have thought you might care to reproduce it for NATURE.

EDWARD S. HOLDEN
Washburn Observatory, University of Wisconsin,
Madison, November 14



METEOROLOGY OF MAGDEBURG¹

THE second report, just published, of the Meteorological Observatory of Magdeburg presents some special features of interest. The observations with the instruments in more general use are given in very convenient forms in detail and abstract.

Magdeburg was one of the first observatories to adopt the barograph of Dr. Sprung, which is certainly one of the best barographs we possess. After the purchase-cost of 40*l.*, the annual outlay in working it and preparing its curves of continuous registration for the lithographer is trifling. The curves are also of high value as accurate representations of the variations of atmospheric pressure. The whole of these curves are reproduced by Dr. Assmann in an elaborate series of lithographs, on which the inch of pressure is on a scale of four inches, and the twenty-four hours of the day extend over five inches and a half. By this large scale the minuter changes of pressure are represented with great distinctness, and their relations to changes of wind, cloud, and other weather conditions can be more clearly seen. Dr. Assmann draws attention to

¹ "Jahrbuch der Meteorologischen Beobachtungen der Wetterwerte der Magdeburgischen Zeitung." Herausgegeben von Dr. R. Assmann. Jahrgang 11. 1883. (Magdeburg, 1884).

five of the small changes from August 27 to 30 as disturbances due to the Krakatoa eruption.

The hourly values have been taken from these curves, and the means for the months calculated and added to the report. From these means and those of the previous year, a first approximation to the diurnal oscillation of the barometer for this part of Europe is obtained. The result is peculiarly interesting from the transitions it shows in the hourly variations of the summer pressure as compared on the one hand with the variations which occur at the stations of the German Seewarte on the North and Baltic Seas, and on the other with those which occur at places more in the interior of the Continent. Unfortunately for the prosecution of several inquiries raised by these differences, hourly hygrometric observations are not available from any of these first-class meteorological observatories.

Another interesting feature are the twelve lithographs which represent the continuous registrations of the sunshine recorder, on the scale of 0.4 inch for each hour. These lines, which show the sunshine and inferentially the state of the sky in respect of cloud, give valuable information regarding certain hygrometric states of the atmosphere. Hence, with the aid of these and the barometric curves, the influence on the diurnal curve of