may be added the valuable system of meteorological observations he gradually organised for Germany, and the many full discussions of these which he published from year to year.

It is no ordinary praise to pass on his work to say that those views he propounded, which subsequent researches are likely to modify materially, are those he arrived at by methods of investigations, necessarily defective, at the time. Thus, for instance, in inquiring into the law of storms, it was not in his power to work from isobaric charts, seeing that the errors of the barometers and their heights above the sea were only known in a very few cases. When we consider the condition in which he found man's knowledge of weather and the large accessions and developments it received from his hand, the breadth of his views on all matters connected with the science, and the well-directed patience, rising into high genius, with which his meteorological researches were pursued, there can be but one opinion, that these give Dove claims which no other meteorologist can compete with, to be styled "the father of meteorology."

JOHANN VON LAMONT. By Alexander Buchan, M.A.

JOHANN VON LAMONT was a Scotsman by birth, having been born in Deeside on the Balmoral estate in 1805, of one of the oldest of our Scottish families. At the age of seventeen he left Scotland, to which he never returned, in the prosecution of his studies in connection with the Roman Catholic Church. Whilst a faithful and zealous member of the clergy of that communion, it was to the Exact Sciences he devoted the full powers of his singularly energetic and penetrating intellect. His first contribution to science was published in 1829, in the twenty-fourth year of his age, the subject being the Motions of Encke's Comet, and from that date to 1870 the Royal Society's Catalogue of Scientific Papers enumerates no fewer than 107, ranging widely over the domain of physics, and several of which take their places as classics in the departments of science with which they deal.

His most extended work is his "Hand-book of Magnetism," published at Leipsic in 1867 as one of a series of works forming a general Encyclopedia of Physics, under the editorship of Karsten,

and in this department of knowledge he was one of the greatest authorities. In meteorology proper, the manner in which he presented and discussed the facts of observation of the diurnal barometric range, and the aqueous vapour of the atmosphere, and the theories he propounded therefrom, were eminently original, and will, we believe, always continue to be read, however much they may be modified or even overturned by future research. In astronomy, Professor Lamont's chief work was his Catalogues of Small Stars between 15° north and 15° south of the equator, being supplementary to the larger work under this head of Argelander and Bessel. As early as 1851 he demonstrated the existence of a decennial cycle in the diurnal range of the magnetic declination, which was more recently conclusively shown to correspond with the cyclical frequency and abundance of the sun-spots.

He was appointed Director of the Bogenhausen Observatory at Munich in 1835, and Professor of Astronomy in the University of Munich in 1852. He died at Bogenhausen early in the morning of Wednesday the 6th of August in the seventy-fourth year of his age.

Monday, 15th December 1879.

THE RIGHT HON. LORD MONCREIFF in the Chair.

The following communications were read:—

1. On the Expansion of Cast Iron while Solidifying. By J. B. Hannay, F.R.S.E., F.C.S., and Robert Anderson.

The fact that certain bodies expand on solidifying, as in the case of water, has long been well known, and this property has been recognised in some of the metals, owing to their filling the mould in which they are cast so as to reproduce the finest lines. The fact of their so doing is, however, only known qualitatively—no accurate measurements having, so far as we are aware, been recorded. The property being of great interest to ironfounders, we have undertaken a series of experiments to determine its real value—the materials being put at our disposal by Messrs M'Dowall, Steven, & Co., to whom we tender our best thanks. We used several methods, and