Luxor, and Assouan ; the drying power of the air at the temperature of the air ; and the drying power of the air at the temperature of the body.

Les Fours Électriques et leurs Applications. By Ad. Minet. Pp. 178. (Paris : Gauthier-Villars et Fils ; Masson et Cie.)

ALL thermo-electric effects in which electricity is the prime agent are regarded by the author as coming within the scope of the title of this book, the grounds being that all forms of apparatus for converting electrical energy into heat, come under the generic head of *fours électriques*. The book thus includes not only descriptions of electric furnaces in which temperatures approaching four thousand degrees are reached, but also of simple conductors and resistance coils raised a few degrees above the temperature of the atmosphere by the electric current. The first part of the volume is devoted to an account of the heating effects of electricity ; it includes descriptions of the heat produced by a current passing through a metallic resistance, the maximum temperatures of conductors, and electric heating generally. The remaining three parts deal with the electric arc and arc-carbons of various forms, electric furnaces and their applications, and carbide of calcium and acetylene.

It will thus be seen that portions of the book are not exactly pertinent to the title, nevertheless they assist the reader to a clear understanding of electro-thermal phenomena. The section on electric furnaces is a concise account of the various forms of furnace devised for different purposes.

The book belongs to the Encyclopédie scientifique des Aide-Mémoire series edited by M. Léauté.

Bibliography of X-Ray Literature and Research (1896-1897)*; being a Ready Reference Index to the Literature on the Subject of Röntgen or X-Rays.* Edited by Charles E. S. Phillips. With an Historical Retrospect, and a chapter of "Practical Hints." Pp. xxxvii + 68. (London : *The Electrician* Printing and Publishing Co., Ltd.)

THE work before us gives, in a handy and succinct form, a good deal of information respecting the literature of X-rays. The subject proper of the volume is prefaced by a brief historical retrospect, in which, however, the average worker in physics will find little but what is already known to him, and a short chapter of practical hints intended "to appeal more especially to physical students about to turn their attention to high vacua research." The main and most valuable portion of the book is the bibliography, and this should certainly prove of utility to investigators in this branch of science. The volume, so far as we have been able to test it, appears to have been compiled with great care, and certainly a mass of useful knowledge is here gathered together in a form easy of reference.

Die Meteoriten in Sammlungen und ihre Literatur, nebst einem Versuch den Tauschwert der Meteoriten zu bestimmen. Von Dr. E. A. Wülfing. Pp. xlvi + 460. (Tübingen : Laupp, 1897.)

THE author has sought information relative to the meteorite collections, public and private, from those in charge of them, and has collated and indexed the results in the form of an alphabetical list, giving for each preserved meteorite a statement of the date of fall or find, a list of the more important memoirs relating thereto, and the weights preserved in the various collections. The work has been carefully done, and will be very useful to collectors of these extra-terrestrial bodies. As regards the pecuniary values to be assigned to the meteorites, we are afraid that the dealers will eschew all such mathematical calculations as are suggested by the author, and will in each case get, as heretofore, what they can.

LETTERS TO THE EDITOR

[*The Editor does not hold himself responsible for opinions expressed by his correspondents. Neither can he undertake to return, or to correspond with the writers of, rejected manuscripts intended for this or any other part of* NATURE. *No notice is taken of anonymous communications.*]

Rediscovery of the Tile-fish ("Lopholatilus").

I AM indebted to Dr. John Murray for drawing my attention to an error in the address which I had the honour of delivering before the Linnean Society on May 24. In referring to the discovery and subsequent remarkable disappearance of the Tile-fish (*Lopholatilus chamæleonticeps*), I stated that since the year in which the extraordinary mortality in this species had been observed (1882), "no specimen of the fish has ever been found."

I must take an early opportunity of correcting this error, which I might have easily avoided by reading more carefully the concluding paragraphs of Goode and Beane's account of the Tile-fish in "Oceanic Ichthyology," p. 288, from which I may be allowed to quote as follows :

"In the fall of 1892, Colonel Marshall McDonald, the Commissioner of Fisheries, made another attempt to discover the fish, and was successful, obtaining it from the following stations [five stations are enumerated, on which eight specimens were caught]. The Tile-fish then is restored to the list of existing species of our North Atlantic coast, and it is probable that in time it may attain to its former abundance. The temperature-investigations made by Colonel McDonald have been carefully discussed by him, and he is convinced that the destruction of *Lopholatilus* was due entirely to climatic causes."

What these climatic causes are we learn from a report by Prof. William Libbey, jun., published in the U.S. Fish Commission Report for 1893 (Washington, 1895, 8vo), p. 32 ; they consist in a variation of the relations of the Gulf Stream to the Labrador current, affecting the temperature of a certain area inhabited by the fish. A lowering of the temperature by the latter current is believed to have caused the sudden mortality, whilst a subsequent invasion of warm Gulf Stream water would allow the fish to gradually reoccupy the depopulated area.

Kew Gardens, November 14. A. GÜNTHER.

The Exploration of the Air by Means of Kites.

THE highest kite ascent, described in NATURE of October 7, was in turn exceeded here by more than 1800 feet on October 15, when excellent meteorological traces (of which a facsimile is enclosed) were brought down from a height of 11,086 feet above Blue Hill. The flight was effected with only four kites, and the ascent and descent occupied but four and a half hours. Excepting a more rapid decrease of temperature with increase of elevation, the results agree with those already stated for the previous high flight.

I now desire to call attention to the fact that the deductions from our automatic records obtained with kites seem to confirm, in general, the conclusions reached by Messrs. Welsh and Glaisher from their observations in free balloons many years ago in England. For example, we find also that the most rapid decrease of temperature with height occurs usually in the lower mile of air during the daytime, and, even with no visible clouds, that damp strata often exist in the dry air of the upper regions. A discussion by Mr. Clayton of more than one hundred meteorological records, obtained with kites since 1894, is now in the press, and will form an appendix to Part i. vol. xlii. of the *Annals of the Astronomical Observatory of Harvard College.*

A curious illustration of how identical methods sometimes may serve diametrically opposed investigations, is the application of the deep-sea sounding apparatus of Sir William Thomson (now Lord Kelvin) to bring *down* these aerial soundings.

A. LAWRENCE ROTCH.

Blue Hill Meteorological Observatory, November 1.

Lord Rayleigh's Proof of Van 't Hoff's Osmotic Theorem.

IN what follows I shall understand by "Van 't Hoff's Osmotic Theorem," the statement, that if P, V be the osmotic pressure and volume of unit mass of a solute, and p, v the gas-pressure and volume of the same mass of the same substance supposed gaseous at the same temperature, then $pv = PV$.