

precipitated water was determined by weight.\* In addition to the condensation-hygrometer, which, by the aid of the ideas of Le Roy in our own times, has gradually led to the exact psychrometrical methods of Dalton, Daniell, and August, we have (in accordance with the examples set by Leonardo da Vinci†) the absorption-hygrometer, composed of substances taken from the animal and vegetable kingdoms, made by Santori (1625), Torricelli (1646), and Molineux. Catgut and the spikes of grasses were employed almost simultaneously. Instruments of this kind, which were based on the absorption by organic substances of the aqueous vapor contained in the atmosphere, were furnished with indicators or pointers, and small counter-weights, very similar in their construction to the hair and whalebone hygrometers of Saussure and De Luc. The instruments of the seventeenth century were, however, deficient in the fixed points of dryness and humidity so necessary to the comparison and comprehension of the results, and which were at length determined by Regnault (setting aside the susceptibility acquired by time in the hygrometrical substances employed). Pictet found the hair of a Guanche mummy from Teneriffe, which was perhaps a thousand years old, sufficiently susceptible in a Saussure's hygrometer.‡

The electric process was recognized by William Gilbert as the action of a proper natural force allied to the magnetic force. The book in which this view is first expressed, and in which the words *electric force*, electric emanations, and electric attraction are first used, is the work of which I have already frequently spoken,§ and which appeared in the year

\* Antinori, p. 45, and even in the *Saggi*, p. 17-19.

† Venturi, *Essai sur les Ouvrages Physico-mathématiques de Leonard de Vinci*, 1797, p. 28.

‡ *Bibliothèque Universelle de Genève*, t. xxvii., 1824, p. 120.

§ Gilbert, *De Magnete*, lib. ii., cap. 2-4, p. 46-71. With respect to the interpretation of the nomenclature employed, he already said, *Electrica quæ attrahit eadem ratione ut electrum; versorium non magneticum ex quovis metallo, inserviens electricis experimentis*. In the text itself we find as follows: *Magneticè ut ita dicam, vel electricè attrahere (vim illam electricam nobis placet appellare . . .)* (p. 52); *effluvia electrica, attractiones electricæ*. We do not find either the abstract expression *electricitas* or the barbarous word *magnetismus* introduced in the eighteenth century. On the derivation of ἤλεκτρον, "the attractor and the attracting stone," from ἐλξίς and ἐλκειν, already indicated in the *Timæus* of Plato, p. 80, c., and the probable transition through a harder ἤλεκτρον, see Buttmann, *Mythologus*, bd. ii. (1829), s. 357. Among the theoretical propositions put forward by Gilbert (which are not always expressed with equal clearness), I give the following: "Cum duo sint corporum genera, quæ manifestis sensibus