as dairy thermometers, and a larger size for brewing purposes. Alarm thermometers are often employed, in which electric contact is made and a bell rung when the temperature exceeds or falls short of a certain limit. Thermostats of various forms are made use of, in which a thermometer, by the position of the mercury in the stem, regulates the gas-supply of a burner and thus the heat of an enclosure.

Metallic Thermometers.—Thermometers depending on change in length or form of composite metal bars, such as Crighton’s zinc-iron bar and Bréguet’s silver-gold-platinum spiral (see Pyrometer), are converted into registering instruments by the addition of two light pointers pushed forward by the index needle as it travels round the graduated arc to either side and left at their extreme points. Jürgensen in 1841 constructed a chronometer, the balance wheel of which was arranged so as to exaggerate the effects of change of temperature and thus to affect the rate. It furnished a very close approximation to the mean temperature between the intervals of rating, and was approved by Arago for use in observa­tions. Hermann and Pfister’s metallic thermometer@@1 is probably the best adapted for meteorological purposes, and has given satisfactory results at the Zurich observatory. It is a flat spiral of brass and steel, which unrolls and coils up according to changes of temperature, moving an index on a divided horizontal circle and marking the maximum and minimum by light pointers. In order to secure regular results, the instrument must be annealed by heating for some time in boiling linseed oil.

Several instruments known popularly as metallic thermometers depend on a different principle, that of the change of form in a thin metallic enclosure containing liquid. Immisch’s avitreous thermometer (fig. 9) is an example. A minute Bourdon’s tube is fixed at one end, and the other bears on the short arm of a lever, the long arm of which acts by a rack on the pinion forming the axis of the pointer. It is only one inch in diameter and extremely accurate.

Thermographs.—The first form of thermo­graph, due to Wheatstone, was an electrical apparatus. It has recently been improved by Van Rysselberghe, in whose hands it has assumed the following form. The thermome­ter is of rather wide bore and open above. At intervals of quarter of an hour a wire is moved gradually down the tube by a clock until it touches the mercury; an electric circuit is thus completed, and causes an indentation by a diamond point which moves in the same way as the wire down a rotating cylinder covered with thin sheet copper or zinc. The metal sheet is renewed at each revolution of the cylinder, and it is sufficient to join the indented points with a graver to have a plate from which any number of copies of the record may be printed. Cripp’s thermo­graph records hourly on a revolving cylinder. It consists essen­tially of a mercury thermometer coiled into a flat spiral and sus­pended on a horizontal axis. Any change of temperature displaces the centre of gravity of the system, and the instrument rotates through an arc, moving a pencil as it does so. A perfectly con­tinuous record is produced by the photographic thermograph. Wet and dry bulb thermometers are so arranged that a beam of light passes through an air-speck, which separates part of the mercury thread, or through the vacant part of the tube, and falls on a rotating cylinder covered with photographic paper on which it traces the curve of temperature fluctuation. This apparatus is probably the most perfect of its kind. In Bowkett's thermograph the change of form of a curved tube containing oil moves a pencil radially over a card turned horizontally by a clock. The resulting curve is referable to polar instead of rectangular coordinates ; the radius measures temperature, the angle time. Richard's thermo­graph is also actuated by means of a sealed metallic capsule con­taining fluid. It draws a continuous curve in ink on a revolving drum on which one sheet lasts for seven days. This instrument is largely employed in observatories to check eye-observations, and is peculiarly adapted for use in positions to which access can only be had occasionally. It is made in many forms, one of which is specially adapted for marine work, the sealed capsule being rolled into the form of a cylinder and exposed to the water on both surfaces. (H. R. Μ.)

THÉROIGNE DE MÉRICOURT, Anne Joseph (1762-1817), was born at Marcourt (from a corruption of which name she took her usual designation), a small town in Luxembourg, on the banks of the Ourthe, on 13th August 1762. She was the daughter of a well-to-do farmer, Peter Théroigne. She appears to have been well educated, having been brought up in the convent of

Robermont ; she was quick-witted, strikingly handsome in appearance, and intensely passionate in temper ; and she had a strong and almost volcanic power of eloquence, which she used with great effect upon the mobs of Paris during that short space of her life (1789-93) which alone is of historical interest. The story of her having been betrayed by a young *seigneur,* and having in consequence devoted her life to avenge her wrongs upon aristocrats, a story which is told by Lamartine and others, is unfounded, the truth being that she left her home on account of a quarrel with her stepmother. She went to Paris, and, on the outbreak of the Revolution, she was surrounded by a coterie of well-known men, chief of whom were Pétion and Desmoulins. She belonged to their party to the last,— became in fact the “ Fury of the Gironde.” On 14th July 1789 she came prominently into notice at the fall of the Bastille, and for about four years thereafter she was seen in many of the stormiest scenes of the Revolution, being known as “ la belle Liégoise,” and singularly attired in a riding habit, a plume in her hat, pistols in her belt, and a sword dangling by her side. Early in October she took a leading part in the march to Versailles, and the return journey with the king and queen to the capital. No horror appalled her, and the violence of ber language and her power with the mob were no less remarkable than the influence which she was able, by combining cajolery, threats, and money, successfully to exert on the royalist soldiers, so winning them over to the Revolution. Being justly accused of dangerous conduct, her arrest was ordered in the following year (1790), and she left Paris for Mar- court, whence after a short stay she proceeded to Liége, in which town she was seized by warrant of the Austrian Government, and conveyed first to Tyrol and thereafter to Vienna, accused of having been engaged in a plot against the life of the queen of France. After an inter­view, however, with Leopold II., she was released ; and she returned to Paris, crowned of course with fresh laurels because of her captivity, and resumed her influence. In the clubs of Paris her voice was often heard, and even in the National Assembly she would violently interrupt the expression of any moderatist views. She commanded in person the 3d corps of the so-called army of the fau­bourgs on 20th June 1792, and again won the gratitude of the people. She shares a heavy responsibility for her connexion with the riots of the 10th of August. A cer­tain contributor to Desmoulins’s journal, the *Acts of the Apostles,* Suleau by name, earned her savage hatred by associating her name, for the sake of the play upon the word, with a deputy named Populus, whom she had never seen. On the 10th of August, just after she had watched approvingly the massacre of certain of the national guard in the Place Vendôme, Suleau was pointed out to her. She sprang at him, dragged him among the infuriated mob, and he was stabbed to death in an instant. But the time came when her party was in peril at the hands of one more extreme, and she now wildly urged the mob to more moderate courses. Then the furies of the “ Mountain ” seized the fury of the Gironde, and they stripped her naked, and flogged her in the public garden of the Tuileries. The infamous affront drove her mad. She was removed to a private house, thence in 1800 to La Salpetrière for a month, and thence to a place of confine­ment called the Petites Maisons, where she remained—a raving maniac—till 1807. She was then again removed to La Salpetrière, where she died, never having recovered her reason, on 9th June 1817.

THESEUS, the great hero of Attic legend,@@2 son of

@@@1 Report. für Meteorologie, i. pt. i. p. 7.

@@@2 All the passages in the Iliad and Odyssey in which his name or allusions to his legend occur are regarded with more or less proba­bility as spurious.