

Climatic or Meteorological Influences.

ED. FARMER: If there is a subject of deep importance to the gardener and the farmer; a subject having a direct bearing on production and accumulation; a subject, the knowledge of which enables us to succeed; a subject expansive and elevating in the highest degree, and at once lifting the mind from the low, the groveling, and the selfish; a subject fraught with all that promotes the good of our race; that subject is the climatic or meteorological influences upon vegetable, cereal, and animal. The sun, and conditions, produce all the phenomena around. That all life, both animal and vegetable, is the direct result of the sun's influence, seems most clear. Conditions, or the primordial state of things, must, in their very nature, have always existed. As, carbon as a condition or primordial state of matter must always have been. The sun, through his heat, light, &c., so changes carbon that it readily combines with oxygen—another primordial state—and forms a compound, carbonic acid. While in the form of carbonic acid, through the sun's rays, all the vegetable kingdom absorbs and combines the carbon in their organization and liberates the oxygen. But, when the vegetable forms die, the carbon assumes its original or primordial state or condition. So that, though millions of forms, both animal and vegetable, may live and die, yet there is no more nor less of matter, or primordial states of matter, than if those organisms had never been in existence. Hence we see the self-regulating nature of the elements, or the original state of matter. So susceptible of being used over and over forever, there can be absolutely no end to their transformations. Water, which is nothing but oxygen and hydrogen, may become, under certain conditions—traced to the sun's absence or presence—transformed into a solid or a gaseous state. But, as soon as those present influences cease, the ice melts, and the gaseous form is lost, and water is again the result. So with all the phenomena we see, hear, taste, feel, and smell. Force, correlation, or the mechanical equivalency of heat, as a grand discovery of our age, has done, and will do, much for the science of meteorology. Those great men, Faraday, Tyndall, Dove, de la Rive, Ampere, Matteucci, Arago, Loomis, Henry, and the immortal Peltier and Franklin have planted the standard of science deeply, and flung the flag of experience to the breeze of progress. Force, with all its transmission, is endless in its power, and will go on producing phenomena forever. Force pervades all space, is universal pervasion. Meteorology, thoroughly understood, embraces the great science of the reciprocal influence of atmospheric and terrestrial media upon animal and vegetable organization, and could not have been constituted before the two bases, physical and chemical, had been established. It was necessary, first, to know the medium, and then the living being, before we could establish the reciprocity of action, and reaction, between them. We could not, therefore, do otherwise than proceed from physical and chemical phenomena, less complicated, to meteorological phenomena more complicated. We needed facts. All other sciences had to advance and accumulate first, when in a high state of advancement, they could be formulated. From this formulation, both through the process of analysis and synthesis, some definite conclusions or laws could be laid down as guides in the physical and chemical, as well as terrestrial and atmospheric. The laws of heat, light, magnetism, electricity, sunshine, shade, dryness, dampness, winds, fogs, clouds, hail, sleet, snow, dew, rains, storms, altitude, latitude; the influence of oceans, lakes, rivers, mountains, plains, &c., &c., all had to precede and become concatenated before they could be used in meteorology. Hence the science of meteorology can only advance as other sciences which constitute its basis advance. Before its speaking of clouds, says: "The clouds are formed of globules of transparent vapor and of globules of opaque vapor, both kept apart by the latent caloric and the electricity, which renders them mutually repellant. If any cause extracts from a cloud the greater part of its electricity, out of the water droplets which co-operate to keep the globules separate is suppressed. The globules of transparent vapor approach one another, are condensed, and

transformed into opaque vapors; the globules of opaque vapor, for the same reason, pass into a liquid state, the density of the cloud, its specific gravity, is augmented, the cloud sinks and falls on the earth in the form of rain. On arriving at the earth the cloud disengages the latent heat it possessed, and thus the soil, as well as the ambient air, is rendered warm." None but a great meteorologist and electrician, as Peltier was, could give such a beautiful and scientific description of the phenomena of clouds and rain. No farmer can succeed without a knowledge of these meteorological agencies, thermometrical, magnetic, and electric, with their variations, which are atmospheric, as well as those magnetic, dia-magnetic, and electric, which are merely terrestrial. The isothermal lines, or lines of equal heat, with currents and counter-currents, bringing and taking away both heat and cold; moisture and dryness, combined with altitude, latitude, and the geographical features of the land; with the annual and diurnal motions of the earth; all have a strong formative character in a climate. These, with the sun's influence, make climates; climates, fruits and grains; fruits and grains, food; and food makes men, and men civilization. No food, no men; no men, no civilization. So important are meteorological agencies in the eyes of the good and the great, that we find Warder, Wilder, Elliott, Grant, Barry, Thomas, Henderson, Quinn, Campbell, Knox, Johnson, Hyatt, Lippincott, Saunders, Flint, with that greatest of all pomologists and horticulturists, Charles Downing, all telling us that "there is no success without a knowledge of meteorological laws, both atmospheric and terrestrial." With a proper knowledge of meteorological laws, and with suitable instruments, we can detect the premonitions of a coming storm, and provide for it. And I have no doubt this can be done not only for the benefit of our maritime, but also for our agricultural interests. Perfection we need never expect, but an approximation thereto is attainable. If, in the various climates, good or bad seasons could be, from well ascertained causes, predicted, famine and other disasters, if not prevented, might be mitigated, and a vast amount of suffering avoided. This is the mission of science. I will close with an extract from an able man, J. Jamin, in an article on "Vegetation and the Atmosphere," in speaking of the sun, says: "From the sun it is that daily nourishment, life, force, and all power is derived. The light, the chemical emanations, all the rays which that orb sends us, are extremely rapid vibrations, analogous to those produced by sound; there is movement, there is force; as soon as it reaches the plant, that force is absorbed, it disappears, it is extinguished. But no force is extinguished except on the condition of having produced an effect, performed a work which is its equivalent. Now the work performed by the light which the leaves absorb is decomposing the carbonic acid. So, too, let it not be forgotten, there is needed a given amount of force to dis-unite a given quantity of oxygen and carbon; it is the sun which every hour of the day furnishes it gratuitously." A. F. DAVIDSON.

Washington Territory, at the recent election, went strongly against calling a convention to form a State Constitution.

TRAGEDY IN TILLAMOOK.—On Monday last, there was enacted one of those tragedies which are becoming alarmingly frequent in this State, and which nothing but the rigors of the law can ever be invoked to prevent. As we learn it, John Wilson and Sumner Hauxhurst were coming down the Bay together in a small boat, and as Wilson tells it, had an altercation all to themselves. Upon reaching a point opposite Wilson's cabin the boat was landed, when he immediately repaired thither and got his revolver and returning toward the landing, met Hauxhurst and shot him through the breast. Dr. Davidson was called and pronounced the wound fatal. Wilson was arrested, and taken before Esquire Jenkins and had an examination resulting in his being held to answer at the next term of the Circuit Court for this county. He was brought over by Constable Day on Thursday last, and lodged in jail where he now remains. Wilson's version of the affair is that Hauxhurst had beaten him while aboard the boat and threatened his life. The accused is 57 years old, and formerly resided in Josephine county, and later stopped in this county. He does not bear the best reputation.—Lafayette Courier.

A man named James Hislop, employed in herding a band of sheep on Wild Horse Creek, Umatilla county, had his feet badly frozen a few days ago. On Monday of last week he was out with his herd of sheep during the whole of the severe snow storm, and, becoming bewildered and chilled by the cold, he wandered around and lost his reckoning. In this condition he remained from Monday morning until Wednesday, a period of 53 hours—during the whole of which time he was exposed to the severe cold, and was without blankets or any protection, save the clothes on his back. When found by his employers—the Adams Bros.—he was almost gone; by careful nursing he was brought to, and subsequently removed to Walla Walla. Both his feet are badly frozen, and it is feared that the left one will have to be amputated.

The British Colonist has the following account of the evacuation of San Juan Island by the British garrison, and its surrender to the American troops: "H. M. S. Scout and Petrel arrived at Esquimalt from San Juan Island yesterday, having on board Captain Delocombe and family, Lieutenant Stuart and family and the men comprising the British garrison at San Juan Island, and all the guns, ammunition and stores connected with that establishment. The barracks and commandant's residence were handed over to the American force at 2 o'clock P. M., Lieutenant Epstein, U. S. A., taking possession in the name of the United States Government. The flagstaff, from which the British ensign had floated for 13 years, was cut down, a portion divided among the men, and a long piece brought around to the dock yard as a souvenir. The evacuation was conducted in a most orderly manner."—The Star.

The following record will give a good idea of the climate of Ochoco Valley: October 25 to 26, clear and pleasant; 27, light snow; 28, clear; 29, a regular Oregon mist; 30 and 31, clear and pleasant; November 1 and 2, clear and pleasant; 3, cloudy; 4, clear and pleasant; 5, cloudy, with snow and rain; 6, clear and pleasant; 7, do., but very windy during the night; 8, snow and cold; 9, cloudy but pleasant—snow all disappeared; 10, clear and pleasant; 11, snow and rain; 12, more snow; 13, snow and rain; 14, snow fell 2 or 3 inches in depth; 15, 16 and 17, snow—remaining clear, very cold at night, but pleasant through the day, with no wind.

Articles of incorporation have been filed in the office of the Secretary of State, and County Clerk of Multnomah county, for the creation and establishment of a branch department in Oregon, of the California Mutual Life Insurance Company. The following gentlemen constitute the District Board: W. S. Ladd, W. L. Halsey, J. A. Wayland, Hamilton Boyd, J. B. Farish, W. H. Edinger, F. A. Bancroft, and Wm. B. Cardwell. A meeting was held by the Board on the 23d inst., at which the following officers were chosen: President, W. S. Ladd; Vice President, W. L. Halsey; Secretary, J. A. Wayland.

Hawley, Dodd & Co. Portland, Oregon offer for sale at the lowest market price Leidyman Iron Steel and Agricultural Implements Agents for the Sale of the Buckeye Grain Drill Improved with Lever Attachment The Strongest and most durable. With or without Force Feed.

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now acknowledged by all to be the best Wagon on the Pacific Coast. Send for descriptive Circulars.

Pacific University, FOREST GROVE, OREGON. INSURANCE is given in long courses of study, covering four or five years, at the expense of the State, for the benefit of all our citizens. The following gentlemen constitute the District Board: W. S. Ladd, W. L. Halsey, J. A. Wayland, Hamilton Boyd, J. B. Farish, W. H. Edinger, F. A. Bancroft, and Wm. B. Cardwell. A meeting was held by the Board on the 23d inst., at which the following officers were chosen: President, W. S. Ladd; Vice President, W. L. Halsey; Secretary, J. A. Wayland.

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