

METEOROLOGY.

280. The comparison and estimation of the relative advantages of separate departments of science is a task which is always partially executed, because it is never entered upon with an unbiased mind; for, since it is only the accurate knowledge of a science which can enable us to present its beauty, or estimate its utility, the branches of knowledge with which we are most familiar will always appear the most important. The endeavor, therefore, to judge of the relative *beauty* or *interest* of the sciences is utterly hopeless. Let the astronomer boast of the magnificence of his speculations, the mathematician of the immutability of his facts, the chemist of the infinity of his combinations, and we will admit that they all have equal ground for their enthusiasm. But the highest standard of estimation is that of utility. The far greater proportion of mankind, the uninformed, who are unable to perceive the beauty of the sciences whose benefits they experience, are the true, the just, the only judges of their relative importance. It is they who feel what impartial men of learning know, that the mass of general knowledge is a perfect and beautiful body, among whose members there should be no schism, and whose prosperity must always be greatest when none are partially pursued, and none unduly rejected. We do not, therefore, advance any proud and unjustifiable claims to the superiority of that branch of science for the furtherance of which this society has been formed over all others; but we zealously come forward to deprecate the apathy with which it has long been regarded, to dissipate the prejudices which that apathy alone could have engendered, and to vindicate its claims to an honorable and equal position among the proud thrones of its sister sciences. We do not bring meteorology forward as a pursuit adapted for the occupation of tedious leisure, or the amusement of a careless hour. Such qualifications are no inducements to its pursuit by men of science and learning, and to these alone do we now address ourselves. Neither do we advance it on the ground of its interest or beauty, though it is a science possessing both in no ordinary degree. As to its beauty, it may be remarked that it is not calculated to harden the mind it strengthens, and bind it down to the measurement of magnitudes and estimation of quantities, destroying all higher feelings, all finer sensibilities: it is not to be learned among the gaseous exhalations of the deathful laboratory; it has no dwelling in the cold caves of the dark earth; it is not to be followed up among the charnel houses of creation. But it is a science of the pure air, and of the bright heaven; its thoughts are amidst the loveliness of creation; it leads the mind, as well as the eye, to the morning mist, and the noonday glory, and the twilight-cloud, to the purple peace of the mountain heaven, to the cloudy repose of the green valley; now expatiating in the silence of stormless ether, now on the rushing of the wings of the wind. It is indeed a knowledge which must be felt to be, in its very essence, full of the soul of the beautiful. For its interest, it is universal, unabated in every place, and in all time. He, whose kingdom is the heaven, can never meet with an uninteresting space, can never exhaust the phenomena of an hour; he is in a realm of perpetual change, of eternal motion, of infinite mystery. Light and darkness, and cold and heat, are to him as friends of familiar countenance, but of infinite variety of conversation; and while the geologist yearns for the mountain, the botanist for the field, and the mathematician for the study, the meteorologist, like a spirit of a higher order than any, rejoices in the kingdoms of the air.

281. But, as we before said, it is neither for its interest, nor for its beauty, that we recommend the study of meteorology. It involves questions of the highest practical importance, and the solution of which will be productive of most substantial benefit to those classes who can least comprehend the speculations from which these advantages are derived. Times and seasons and climates, calms and tempests, clouds and winds, whose alternations appear to the inexperienced mind the confused consequences of irregular, indefinite, and accidental causes, arrange themselves before the meteorologist in beautiful succession of undisturbed order, in direct derivation from definite causes; it is for him to trace the path of the tempest round the globe, to point out the place whence it arose, to foretell the time of its decline, to follow the hours around the earth, as she "spins beneath her pyramid of night," to feel the pulses of ocean, to pursue the course of its currents and its changes, to measure the power, direction, and duration of mysterious and invisible influences, and to assign constant and regular periods to the seedtime and harvest, cold and heat, summer and winter, day and night, which we know shall not cease, till the universe be no more. It may be thought we are exaggerating the effects of a science which is yet in its infancy. But it must be remembered that we are not speaking of its attained, but of its attainable power: it is the young Hercules for the fostering of whose strength the Meteorological Society has been formed.

282. There is one point, it must now be observed, in which the science of meteorology differs from all others. A Galileo, or a Newton, by the unassisted workings of his solitary mind, may discover the secrets of the heavens, and form a new system of astronomy. A Davy in his lonely meditations on the crags of Cornwall, or in his solitary laboratory, might discover the most sublime mysteries of nature, and trace out the most intricate combinations of her elements. But the meteorologist is impotent if alone; his observations are useless; for they are made upon a point, while the speculations to be derived from them must be on space. It is of no avail that he changes his position, ignorant of what is passing behind him and before; he desires to estimate the movements of space, and can only observe the dancing of atoms; he would calculate the currents of the atmosphere of the world, while he only knows the direction of a breeze. It is perhaps for this reason that the cause of meteorology has hitherto been so slightly supported; no progress can be made by the most gigantic efforts of a solitary intellect, and the co-operation demanded was difficult to obtain, because it was necessary that the individuals should think, observe, and act simultaneously, though separated from each other by distances on the greatness of which depended the utility of the observations.

283. The Meteorological Society, therefore, has been formed, not for a city, nor for a kingdom, but for the world. It wishes to be the central point, the moving power of a vast machine, and it feels that unless it can be this, it must be powerless; if it cannot do all, it can do nothing. It desires to have at its command, at stated periods, perfect systems of methodical and simultaneous observations,—it wishes its influence and its power to be omnipotent over the globe, so that it may be able to know, at any given instant, the state of the atmosphere at every point on its surface. Let it not be supposed that this is a chimerical imagination, the vain dream of a few philosophical enthusiasts. It is co-operation which we now come forward to request, in full confidence, that if our efforts are met with a zeal worthy of the cause, our associates will be astonished, *individually*, by the result of their labors in a body. Let none be discouraged because they are alone, or far distant from their associates. What was formerly weakness

will now have become strength. Let the pastor of the Alps observe the variations of his mountain winds; let the voyagers send us notes of the changes on the surface of the sea; let the solitary dweller in the American prairie observe the passages of the storms, and the variations of the climate; and each, who alone would have been powerless, will find himself a part of one mighty mind, a ray of light entering into one vast eye, a member of a multitudinous power, contributing to the knowledge, and aiding the efforts, which will be capable of solving the most deeply hidden problems of nature, penetrating into the most occult causes, and reducing to principle and order the vast multitude of beautiful and wonderful phenomena by which the wisdom and benevolence of the Supreme Deity regulates the course of the times and the seasons, robes the globe with verdure and fruitfulness, and adapts it to minister to the wants, and contribute to the felicity, of the innumerable tribes of animated existence.

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FOOTNOTES:

From the "Transactions of the Meteorological Society," Vol. i., pp. 56-9 (London, 1839). The full title of the paper was "Remarks on the Present State of Meteorological Science." The Society was instituted in 1823, but appears to have published no previous transactions.—Ed.
