

PHOSPHORESCENCE OF THE SEA.—The sea has sometimes a luminous appearance, a phenomenon that has been observed by all sailors, who consider it the forerunner of windy weather. It is said to occur most frequently in the summer and autumn months, and varies so much in its characters as to induce a doubt whether it can be always attributed to the same cause. Sometimes the luminous appearance is seen over the whole surface of the water, and the vessel seems as though floating upon an ocean of light; at other times the phosphorescence only encircles the ship. A portion of water taken from the sea does not necessarily retain its luminous appearance, but its brilliance will generally continue as long as the water is kept in a state of agitation. Some philosophers imagine the phosphorescence of the sea to arise from the diffusion of an immense number of animalculæ through the medium, and others attribute it to electricity. Dr. Buchanan has given an account of a very remarkable appearance of the sea, observed by him during a voyage from Johanna to Bombay. About eight o'clock in the evening of the 31st July, 1785, the sea had a milk-white colour, and was illuminated by a multitude of luminous bodies, greatly resembling the combination of stars known as the milky way, the luminous substances representing the brighter stars of a constellation. The whiteness, he says, was such as to prevent those on board from seeing either the break or swell of the sea, although, from the motion of the ship and the noise, they knew them to be violent, and the light was sufficiently intense to illuminate the ropes and rigging. This singular phenomenon continued until daylight appeared. Several buckets of water were drawn, and in them were found a great number of luminous bodies, from a quarter of an inch to an inch and a half in length, and these were seen to move about as worms in the water. There might be, says Dr. Buchanan, four hundred of these animals in a gallon of water. A similar appearance had been observed before in the same sea by several of the officers, and the gunner had seen it off Java Head in a voyage to China.—*M. Higgins.*

THE PEARL.

HALIFAX, FRIDAY EVENING, APRIL 13, 1838.

ON CLOTHING.

If the rude verse that now detains your ear,
Should to one female heart conviction bear;
Recall one gentler mind from Fashion's crew,
To give to Nature what is Nature's due;
Whilst others mount the arduous heights of fame,
To wake your feelings be my nobler aim:
Nor you unblessed, if, whilst I fail to move,
The fond attempt my kind intention prove.—*Roscoe.*

PLINY, one of the most celebrated naturalists of antiquity, pathetically laments, that, "whilst Nature has given various clothing to the brute creation, and even fenced plants and trees with bark against the injuries of the cold and heat, she should have cast man into this world naked, unprovided against the inclemency of different climates and seasons." But, instead of agreeing with that philosopher, that Nature has, in this particular, acted more like a cruel step-mother, than a kind and indulgent parent to man, we cannot sufficiently extol her providence and wisdom. It was no more than consistent with equity to provide the irrational part of her works with clothing suitable to their circumstances; but man whom she endowed with the transcendent faculty of reason, she hath very wisely left to accommodate himself to the difference of climate and season, and to clothe himself, accordingly, with the fleece, and skins of animals, and the products of various plants and trees.

Nature knows no other use of clothes but to keep the body warm. The shape God has given, is too often attempted to be mended by dress; and those who know no better, believe that mankind would be frights without its assistance. Though we cannot hope entirely to escape the unpleasant sensations, or altogether to ward off the fatal effects, occasioned by the sudden changes of our climate; yet considering properly the nature of clothing, we may avoid much of the danger. If ladies be more subject to catch cold frequently than men, it is not alone their delicacy of constitution, or their being more confined within doors; but the frequent changes they make in the quality and quantity of their garments, and sometimes, however fearful of a partial current of air, because they expose those parts of the body that a little before had been warmly clad. "If," says Dr. Beddoes, "a greater proportion of females fall victims to consumption, is it not because, losing sight more than men of its primary purpose, they regulate their dress solely by fantastic ideas of elegance?"

The human body, in our climate, and indeed we may say in every climate—a few days in the summer excepted—is exhaling caloric. During the winter season the expenditure is of course great, and hence clothing is required, partly for the purpose of preserving our own heat in proximity with the body, and partly to prevent the impressions of extraneous heat or cold—particularly of the latter. The best clothing to protect us from external heat or cold is one that does not permit the matter of heat to pass readily through it. Substances, whose temperature is below that of the human body, and which conduct heat rapidly, appear to us

colder than such as transmit it more imperfectly. Thus a piece of iron, and a woollen cap, may be at the same temperature, as indicated by the thermometer, and yet the iron feels much the colder of the two, and for this plain reason—the iron conducts the heat it receives from the human body rapidly into its interior, and then abstracts more from us, but the woollen cap, although it receives its charge of caloric from us, conducts it so slowly into the interior of its texture, that less is abstracted, and accordingly the cap feels to us the warmer article of the two. From this it is manifest, that the kind of clothing which is the worst conductor of heat, or which refuses most to receive, and to transmit the matter of heat, is the warmest; because the caloric, given off by our bodies, is in this way retained at the surface of the skin. This is the case with woollen articles. For the same reasons, it can be readily conceived, that if the external temperature be greater than that of the human body, these same articles of clothing will be adapted for preventing the intrusion of heat. Accordingly, a woollen cap would protect us better from the scorching rays of the sun, than an iron helmet of equal thickness, especially if blackened. If painted black, the caloric would pass through in such quantity as to burn the head, whilst the interior of the woollen cap might be scarcely hotter than the body. We can hence understand, why the Spaniard and the Oriental should throw their mantles over them, when they have to expose themselves to the rays of a vertical sun.

By most medical authorities, it has been strongly advised to case the frame in flannel. It has even been attempted to shew, that the ancient Romans suffered less from malarious disease, chiefly because they were enveloped in under woollen dresses. Brochi describes the immunity of the sheep and cattle, which feed night and day in the Campagna di Roma, to the protection afforded them by their wool; and Patassier affirms that warm woollen clothing has been found effectual in preserving the health of laborers, digging and excavating drains and canals in marshy grounds, where previous to the employment of these precautions, the mortality was considerable. Dr. Combe observes that "in the army and navy, the utmost attention is now paid to enforcing the use of flannel. In the prevention of cholera, flannel was decidedly useful. Many are in the custom of waiting till winter has fairly set in before beginning to wear flannel. This is a great error in a variable climate like ours." A celebrated author's favourite recipe for health was, "to leave off flannel on midsummer day, to resume it the day following." It has been objected, that flannel worn next the skin is debilitating, because it too much increases perspiration; but this is not founded on truth, since perspiration, as long as the skin remains dry, can never be hurtful. In answer to another objection against the wearing of flannel, it is certain that flannel may preserve the body as clean, and much cleaner than linen, if as frequently changed.

But all this circumlocution is but introductory to the solid and useful article subjoined. Will every father—mother—male—female, read it, and not only once, but twice and thrice? Will all learn, mark, and inwardly digest it? And what is of more importance, will all be governed by the wisdom of its directions? We verily believe that hereby many of our fair readers will save themselves from all the wretchedness of a premature grave!!

"A very striking fact, exhibited by the Bills of Mortality, is the very large proportion of persons who die of consumption. It is not our intention to enter into any general remarks upon the nature of that fatal disease. In very many cases, the origin of a consumption is an ordinary cold; and that cold is frequently taken through the want of a proper attention to clothing, particularly in females. We shall, therefore, offer a few general remarks upon this subject so important to the health of all classes of persons.

Nothing is more necessary to a comfortable state of existence than that the body should be kept in nearly a uniform temperature. The Almighty wisdom, which made the senses serve as instruments of pleasure for our gratification, and of pain for our protection, has rendered the feelings arising from excess or deficiency of heat so acute, that we instinctively seek shelter from the scorching heat and freezing cold. We bathe our limbs in the cold stream, or clothe our bodies with the warm fleece. We court the breeze, or very carefully avoid it. But no efforts to mitigate the injurious effects of heat or cold would avail us, if nature had not furnished us, in common with other animals, (in the peculiar functions of the skin and lungs,) with a power of preserving the heat of the body uniform, under almost every variety of temperature to which the atmosphere is liable. The skin, by increase of perspiration, carries off the excess of heat; the lungs, by decomposing the atmosphere, supply the loss;—so that the internal parts of the body are preserved at a temperature of about ninety-eight degrees, under all circumstances. In addition to the important share which the function of perspiration has in regulating the heat of the body, it serves the further purpose of an outlet to the constitution, by which it gets rid of matters that are no longer useful in its economy.

The excretory function of the skin is of such paramount importance to health that we ought at all times to direct our attention to the means of securing its being duly performed; for if the mat-

ters that ought to be thrown out of the body by the pores of the skin are retained, they invariably prove injurious. When speaking of the excrementitious matter of the skin, we do not mean the sensible moisture which is poured out in hot weather, or when the body is heated by exercise; but a matter which is too subtle for the senses to take cognizance of—which is continually passing off from every part of the body, and which has been called the insensible perspiration. This insensible perspiration is the true excretion of the skin.

A suppression of the insensible perspiration is a prevailing symptom in almost all diseases. It is the sole cause of many fevers. Very many chronic diseases have no other cause. In warm weather, and particularly in hot climates, the functions of the skin being prodigiously increased, all the consequences of interrupting them are proportionably dangerous.

Besides the function of perspiration, the skin has, in common with every other surface of the body, a process, by means of appropriate vessels, of absorbing or taking up, and conveying into the blood-vessels, any thing that may be in contact with it; it is also the part on which the organ of feeling or touch is distributed.

The skin is supplied with glands, which provide an oily matter that renders it impervious to water, and thus secures the evaporation of the sensible perspiration. Were this oily matter deficient, the skin would become sodden, as is the case when it has been removed—a fact to be observed in the hands of washerwomen, when it is destroyed by the solvent powers of the soap. The hair serves as so many capillary tubes to conduct the perspired fluid from the skin.

The three powers of the skin—perspiration, absorption, and feeling—are so dependent on each other, that it is impossible for one to be deranged without the other two being also disordered. For if a man be exposed to a frosty atmosphere, in a state of inactivity, or without sufficient clothing, till his limbs become stiff, and his skin insensible, the vessels that excite the perspiration, and the absorbent vessels, partake of the torpor that has seized on the nerves of feeling, nor will they regain their lost activity till the sensibility be completely restored. The danger of suddenly attempting to restore sensibility to frozen parts is well known. If the addition of warmth be not very gradual, the vitality of the part will be destroyed.

This consideration of the functions of the skin will at once point out the necessity of an especial attention, in a fickle climate, to the subject of clothing. Every one's experience must have shown him how extremely capricious the weather is in this country. Our experience of this great inconstancy in the temperature of the air ought to have instructed us how to secure ourselves from its effects.

The chief end proposed by clothing ought to be protection from the cold; and it never can be too deeply impressed on the mind, (especially of those who have the care of children,) that a degree of cold that amounts to shivering cannot be felt, under any circumstances, without injury to the health; and that the strongest constitution cannot resist the benumbing influence of a sensation of cold constantly present, even though it be so moderate as not to occasion immediate complaint, or to induce the sufferer to seek protection from it. This degree of cold often lays the foundation of the whole host of chronic diseases, foremost among which are found scrofula and consumption.

Persons engaged in sedentary employments must be almost constantly under the influence of this degree of cold, unless the apartment in which they work is heated to a degree that subjects them, on leaving it, to all the dangers of a sudden transition, as it were, from summer to winter. The inactivity to which such persons are condemned, by weakening the body, renders it incapable of maintaining the degree of warmth necessary to comfort, without additional clothing or fire. Under such circumstances, a sufficient quantity of clothing of a proper quality, with the apartment moderately warmed and well ventilated, ought to be preferred, for keeping up the requisite degree of warmth, to any means of heating the air of the room so much as to render any increase of clothing unnecessary. To heat the air of an apartment much above the ordinary temperature of the atmosphere, we must shut out the external air;—the air also becomes extremely rarefied and dry, which circumstances make it doubly dangerous to pass from it to the cold, raw, external air. But in leaving a moderately well-warmed room, if properly clothed, the change is not felt; and the full advantage of exercise is derived from any opportunity of taking it that may occur.

The only kind of dress that can afford the protection required by the changes of temperature to which high northern climates are liable, is woollen. Nor will it be of much avail that woollen be worn, unless so much of it be worn, and it be so worn, as effectually to keep out the cold. Those who would receive the advantage which the wearing woollen is capable of affording, must wear it next the skin; for it is in this situation only that its health-preserving power can be felt. The great advantages of woollen cloth are briefly these; the readiness with which it allows the escape of the matter of perspiration through its texture—its power of preserving the sensation of warmth to the skin under all circumstances—the difficulty there is in making it thoroughly wet—the slowness with which it conducts heat—the softness, lightness, and pliancy of its texture.