

cial bans of endless disorders, that to many render life a burden.

But our argument rests not even on this single proof, though this alone were sufficient to all intents and purposes. What were the numerous tribes of Indians—the aborigines of this immense continent? Revengful, bloodthirsty, and cruel, it may be—but no artificial diseases, brought on by dissolute habits, entered the wigwam of the Indian. Athletic and courageous—subsisting, like the ancient Britons, on the same simple fare Nature had provided for them—and clothed in such articles as the season of the year demanded. Life rolled on like a pleasant stream; arrived at maturity, they insensibly became subject to organic decay, and breathed their last with as much composure, and as much ease, as they sunk to slumber.

The same may be advanced of the inhabitants of Otaheite and the Society and Friendly Islands, from a no less respectable authority than Captain Cook, the navigator. "I could find," says he, "marks of no disease whatever, not so much as an eruption on the surface of the skin;" and adds, that "they appeared to be totally ignorant of disease." The hardiest race of men, the handsomest and most elegantly shaped women, that now exist, according to the unsurpassable figure of the famous *Venus de Medicis*, may probably be found in Circassia, and in the Highlands of Scotland; in the latter place especially, when aident spirits are abstained from, we know not of a more patient, or a hardier, set of people at present on the face of the habitable globe.

With regard to ancient history, one instance will suffice for our purpose. Lycurgus, the great law-giver, when he renovated, if I may so speak, the Spartan republic, or laid the foundation of a new dynasty, established such wise and salutary laws, as cleansed the state of evil habits, and banished disease from among the Lacedæmonians, by the temperate diet he obliged them to use, and by excluding every article of food from the public tables at which the Spartan youth fed, and every pernicious custom, having a tendency to effeminate or debilitate the bodily organisation; consequently, with a hardy and robust constitution, they were afflicted by no ruling constitutional complaints: their republic stood for a longer period than any other that has up to this time existed; they became the bulwark of the Grecian states: three hundred valorous spirits and nervous arms, with their general Epaminondus, not only withstood, but actually defeated, the overwhelming army with which the enervated Persian monarch Darius invaded Greece. But, alas! a few ages, and what a terrible change in the constitution of the human family!

We have seen sufficient to prove that, making allowance for difference of climate, &c., the human family is taught the same easy familiar lessons by Nature, and that her harmonious laws are less liable to be trespassed upon. How this sad change has taken place, and how misery and disease has given a handle to atheists and freethinkers, I shall notice in its proper place; and hasten to bring forward the last but most forcible and striking proof in advocacy of our argument, from the Holy Scriptures.

The history of the Jews affords us a triumphant and crowning evidence that diseases are *artificial*! It is true it may be advanced that they were a peculiar people, and under the especial care of Divine Providence; but God never works a miracle, when the operation of the laws upon which he has founded his government can accomplish his purposes. This was exemplified in a peculiar manner during the sojourn of the Hebrews in, and their escape from, the land of Egypt. Looking at their history from the time of the delivery of the moral code on Mount Sinai, together with the political and domestic codes, given to them by God himself, we shall find, that so long as they kept these laws, they were free from diseases of every description. That of leprosy was supernatural. Judgments they were specially visited with, in the form of pestilence, &c., for their transgressions; but when we come to examine their civil code closely, it will be found that there was not one law that was not conducive to health and happiness. The prohibition of eating swine's flesh, which in Palestine, a warm country, would have tended to the promotion of scrofulous distempers, shows us plainly that Jehovah regarded the health of his chosen people as no mean consideration. Their times of rest—their appointed hours of labour—their abstinence from intoxicating drinks—were all promotive of health, freedom from sickness, and essentially conducive to longevity. Their matrimonial connexions were founded by the same inscrutable wisdom, and productive of similar effects.

The Jewish polity was incomparable, and was, doubtless, the foundation of many of our British laws. But we find David complaining, in his day,—"the life of man is short"—not was, nor yet shall be—"three-score years and ten; and if by reason of strength they be fourscore years, yet is their strength labour and sorrow." Why? Because constitutional degeneracy, the effect of wilful transgression, had caused them to be so. At the time he wrote this, the Jews had sinned deeply, and, doubtless, must have infringed the natural laws; but from his language I should be inclined

to infer, that it was a remarkable circumstance that the lives of the people had been so abridged—instead of leading the mind to the general erroneous supposition that they had not been longer during past years, or ever would be lengthened again.

Let there be a cessation of vice—of bad habits—of a continual violation of the governing principle of matter—and life will be gradually prolonged, as a natural consequence—which would be felt by succeeding generations. But men selfishly plunge into sinful and ridiculous practices, and by so doing, cut short by constitutional degeneracy, the lives of their posterity.

Let us see whether this explanation of the passage from the Psalmist will bear comparison with one of a much earlier date. "I the Lord thy God am a jealous God, visiting the iniquity of the fathers upon the children unto the third and fourth generation of them that hate me." See also a corroboration of the above in Exod. xxiv. 7. Job xxi. 19. Jeremiah li. 9; xlii. 18. They are to be visited, not in themselves judicially, by immediate execution of sentence, but after they have borne their own inebriety, that crime always brings, a weakened constitution is delegated to the second, third, and fourth generation of their immediate families—and will continue to be so, unless a saving reformation in the intermediate lineage, or some counter physical operation by matrimonial connexion, interferes. Another passage informs us, that God will not visit the sins of the fathers upon the children. We understand that to mean, by any peculiar mark of his displeasure, but only, as in the former case, by a non-interference in the usual organic cause of descent.

We must now hasten to a conclusion on this very interesting and important head, as I consider that it has been satisfactorily, though briefly, proved, in the three last articles, that man is not the absolutely decreed hereditary subject of disease.

It has been from a mistaken view of the causes of the misery and affliction which seem to increase on the human family, that infidelity has had room to cavil at Christianity, by endeavouring to father evil upon the bounteous Giver of life and all its enjoyments—instead of tracing it to its legitimate source, the folly and perverseness of man—which, at the same time that it establishes his free agency, marks most glaringly his deep depravity, and verifies the awful truth, that "the heart of man is deceitful above all things, and desperately wicked."

Montreal, July, 1842.

OVERSURY.

TO THE EDITOR OF THE CHRISTIAN MIRROR.

DEAR SIR,—As the Aurora Borealis is no uncommon thing to the inhabitants of this part of the world, the following facts and theories relating to it, gathered from authentic sources, may perhaps be interesting to that portion of your readers not already acquainted with them.

I do not offer them as any thing new, or placed in a new light, but merely as I have gathered them for my own information.

Should you deem them worthy a place in your interesting periodical, they are respectfully placed at your service, by

Your constant reader, B.

AURORA BOREALIS, NORTHERN LIGHTS, or STREAMERS.—A kind of meteor, appearing in the northern part of the heavens.

"In the Shetland Islands, the merry dances, as they are there called, are the constant attendants of clear evenings.

In the northern latitudes of Sweden and Lapland, they are not only singularly beautiful in appearance, but afford travellers, by their almost constant effulgence, a very beautiful light during the whole night.

In Hudson's Bay, they diffuse a variegated splendour, which equals that of the full moon.

In the northern parts of Siberia, they are observed to begin with single bright pillars, rising in the north, and almost at the same time in the north-east, which gradually increasing, comprehend a large space of the heavens, rushing about from place to place with incredible velocity, and finally, almost cover the whole sky up to the zenith, and produce an appearance as if a vast tent was expanded in the heavens, glittering with gold, rubies, and sapphires. A more beautiful spectacle cannot be painted; but whoever should see such a northern light for the first time, could not behold it without terror. For, however fine the illumination may be, it is attended with such a hissing, cracking, and rushing noise through the air, as if the largest fire works were playing off. To describe what they then hear, the inhabitants make use of the expression "spolochi chodjat," that is, "the raging host is passing."

Mr. Dalton gives the following account of the Aurora Borealis:—

They come under four different descriptions:—1st. A horizontal light, like the break of day.

2d. Fine slender luminous beams, well defined, and of dense light, which often continue a minute at rest.

3d. Flashes pointing upwards, or in the direction of the beams which they succeed. These are only momentary, and have no lateral motion; they appear broad and diffuse, and of a weaker light than the beams; they grow gradually faint till they disappear, and continue for hours flashing at intervals.

4th. Arcs nearly in the form of a rainbow. These, when complete, go quite across the heavens, from one point of the horizon to the opposite point.

These appearances generally succeed each other in the following order:—1st. The faint rainbow-like arcs; 2d, the beams; and 3d, the flashes. The northern horizontal light appears to consist of an abundance of flashes, or beams, blended together by the situation of the observer. The beams of aurora appear at all places to be arcs of great circles of the sphere, with the eye in the centre; and these arcs, if prolonged upwards, would all meet in a point.

The rainbow-like arcs cross the magnetic meridian at right angles.

When two or more appear at once, they are concentric, and tend to the east and west; also the broad arc of the horizontal light tends to the magnetic east and west, and is bisected by the magnetic meridian; and when the aurora extends over any part of the hemisphere, the line separating the illuminated part of the hemisphere from the clear part, is half the circumference of a great circle, crossing the magnetic meridian at right angles, and terminating in the east and west.

That point of the heavens to which the beams of the aurora appear to converge, at any place, is the same as that to which the south pole of the dipping needle points at that place. The beams appear to rise above each other in succession; so that of any two beams, that which has higher base has also the higher summit. Every beam appears broadest at or near the base, and to grow narrower as it ascends; so that the continuations of the bounding lines would meet in the common centre to which the beam tends.

The height of the rainbow-like arcs of the aurora borealis is estimated by Mr. Dalton to be 150 miles above the earth's surface.

Mr. Bergman, from a mean of thirty computations, makes the average height of the aurora borealis to be 468 miles. Euler supposes the height to be several thousands of miles; and Mairan also assigns to these phenomena a very elevated region, the far greater number being, according to him, about 200 leagues above the surface of the earth. Many attempts have been made to determine the cause of this phenomenon. Dr. Halley imagines that the vapours, or effluvia, exceedingly rarefied by subterraneous fire, and tinged with sulphurous streams, which many naturalists have supposed to be the cause of earthquakes, may also be the cause of this appearance; or that it is produced by a kind of subtle meteor, freely pervading the pores of the earth, and which, entering into it nearer the southern pole, passes out again with some force in the ether, at the same distance from the northern. This subtle matter, by becoming more dense, or having its velocity increased, may perhaps be capable of producing a small degree of light, after the manner of effluvia from electric bodies, which, by a strong and quick friction, emit light in the dark; to which sort of light this seems to have an affinity.

Mr. Canton, soon after he had obtained electricity from the clouds, offered a conjecture, that the aurora is occasioned by the dashing of electric fire positive towards negative clouds at a great distance, through the upper part of the atmosphere, where the resistance is least; and he supposes that the aurora which happens at the time when the magnetic needle is disturbed by the heat of the earth, is the electricity of the heated air above it, and this appears chiefly in the northern regions, as the alteration in the heat of the air in these parts is the greatest.

Dr. Franklin supposes, that the electric fire discharged into the polar regions, from many leagues of vapourised air raised from the ocean between the tropics, accounts for the aurora borealis; and that it appears first where it is first in motion, namely in the most northern part; and the appearance precedes southward, though the fire really moves northward.

Mr. Kerwan supposes the rarefaction of the atmosphere in the polar regions to proceed from the aurora borealis, and they from a combustion of inflammable air caused by electricity.

M. Libes is of opinion, that the aurora borealis is caused by nitric acid, nitrous gas. He observes, that if we excite the electric spark in a mixture of azotic and oxygen gas, these substances will result severally, according to the relation which subsists between the two gases; and that these substances, under different circumstances which take place in the aurora borealis, assume the colours observed in that phenomena.

He also shews, that the electric fluid restoring its equilibrium in the polar regions, must pass through a mixture of azot and oxygen: and, therefore, produce the gaseous fluids above mentioned; giving birth to red and volatile vapours, which, elevated in the atmosphere, form the aurora borealis.

Mr. Dalton is of opinion, that the aurora borealis is a magnetic phenomena.