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The hundred wonders of the world

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Wide and inhospitable deserts.

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remaining in a loose state, form what is usually called a key upon the tops of the reef. The new bank is not long in being visited by sea birds; salt plants take root upon it, and a soil begins to be formed; a cocoa nut is thrown on shore; land birds visit it and deposit the seeds of shrubs and trees; every high tide, and still more every gale, adds something to the bank; the form of an island is gradually assumed—and last of all comes man to take possession.

“ This island is well advanced in the above progressive state; having been many years, probably some ages, above the reach of the highest spring-tides, or the wash of the surf in the heaviest gales. I distinguished, however, in the rock which forms its basis, the sand, coral, and shells formerly thrown up, in a more or less perfect state of cohesion; small pieces of wood, pumice stone, and other extraneous bodies, which chance had mixed with the calcareous substances when the cohesion began, were inclosed in the rock; and, in some cases, were still separable from it without much force. The upper part of the island is a mixture of the same substances in a loose state, with a little vegetable soil; and is covered with the *casuarina* and a variety of other trees and shrubs, which give food to paroquets, pigeons, and some other birds; to whose ancestors it is probable the island was originally indebted for this vegetation.”

WIDE AND INHOSPITABLE DESERTS.

ASIATIC DESERTS.

THE chief ASIATIC DESERTS are in Persia and Arabia, the former of which countries contains three of considerable extent and celebrity. The first of these commences on the east of the Tigris, in latitude thirty-three, is pervaded by the river Ahwas, and extends to the north of Shuster. The second reaches from the vicinity of Korn very nearly to the Zurra, in a line, from east to west, of about four hundred English miles, and, from north to south, of about two hundred and fifty. In the latter direction it joins the great desert of Kerman, which, alone, extends over a tract of three hundred and fifty miles. The two may, therefore, be considered as forming one common desert and stretch, north-west and south-east, over a space of about seven hundred miles, thus intersecting this

wide empire into two nearly equal portions. This vast extent is impregnated with nitre and other salts, which taint the neighbouring lakes and rivers, and has, on that account, been denominated the **GREAT SALINE DESERT**.

ARABIAN DESERTS.

THE SANDY DESERTS OF ARABIA form one of the most striking objects of that country. From the hills of Omon, which appear to be a continuation of those on the other side of the Persian gulf, as far as Mecca, the greater part of Negad is one prodigious desert, interrupted, towards the frontiers of Hejaz and Yemen, or Arabia Felix, by Kirg , containing the district of Sursa, and several oases, or fertile spots. The north-west part of Negad presents almost a continued desert, and is considered as a prolongation of the one above-mentioned.

The BELED EL HARAM, or HOLY LAND OF ISLAM, of which Mecca is the capital, is comprehended between the Red Sea, and an irregular line which, commencing at Arabog, about sixty miles to the north of Djedda, forms a bend from the north-east to the south-east, in passing by Yelemlem, two days' journey to the north-east of Mecca. It thence continues to Karna, nearly seventy miles to the east of the same place, and twenty-four miles to the west of Taif, which is without the limit of the Holy Land; after which, turning to the south-west, it passes by Drataerk, and terminates at Mehherma upon the coast, at the port named Almarsa Ibrahim, about ninety miles to the south-east of Djedda.

It therefore appears that the Holy Land is about one hundred and seventy miles in length, from the north-west to the south-east, and eighty-four miles in breadth, from the north-east to the south-west—which space is comprehended in that part of Arabia, known by the name of EL HEDJRAZ, or the LAND OF PILGRIMAGE, and includes the cities of Medina and Taif. It has not any river; and the only water to be found, is that of some inconsiderable springs, which are not numerous, and the brackish water obtained from the deep wells. Thus it is a **REAL DESERT**. It is at Mecca and Medina alone that cisterns have been wrought to preserve the rain water; on which account, a garden is very rarely to be seen throughout this

vast territory. The plains are composed either of sand, or bad earth, entirely abandoned; and, as the inhabitants do not, in any part of the country, sow any description of grain, they are supplied with flour, &c. from Upper Egypt, Yemer and India.

AFRICAN DESERTS.

THE most striking feature of AFRICA consists of the immense deserts which pervade its surface, and which are supposed to comprise the one half of its whole extent. The chief of these is, by way of eminence, called SAHARA, or the Desert. It stretches from the shores of the Atlantic, with few interruptions, to the confines of Egypt, a space of more than forty-five degrees, or 2700 geographical miles, by a breadth of twelve degrees, or 720 geographical miles. It is one prodigious expanse of red sand, and sandstone rock, of the granulations of which the red sand consists. It is, in truth, an empire of sand which seems to defy every exertion of human power or industry, although it is interspersed with various islands, and fertile and cultivated spots of different sizes, of which Fessan is the chief of that which have been hitherto explored.

Nearly in the centre of this sandy ocean, and nearly mid-way between the Mediterranean Sea and the coast of Guinea, rise the walls of Tombuctoo, the capital of the very interesting empire of Bembarra—a city which constitutes the great mart for the commerce of all the interior of Africa. To maintain this commerce is the laborious work of the *akkabaars*, or caravans, which cross this enormous desert from almost every part of the African coast. The mode in which it is traversed is highly curious.

The caravans consist of several hundred loaded camels, accompanied by the Arabs who let them out to the merchants for the transport of their goods. During their route, they are often exposed to the attacks of the roving Arabs of Sahara, who generally commit their depredations on the approach to the confines of the desert. In this tiresome journey, the caravans do not proceed to the place of their destination, in a direct line across the trackless desert, but turn occasionally eastward or westward, according to the situation of certain fertile, inhabited, and cultivated spots, called *oases*, interspersed in various parts

of the Sahara, like islands in the ocean. These serve as watering-places to the men, as well as to feed, refresh and replenish the hardy and patient camel. At each of these cultivated spots, the caravan sojourns about seven days, and then proceeds on its journey, until it reaches another spot of the same description. In the intermediate journies, the hot winds, denominated SHUME, or SIMOOM, are often so violent, as considerably, if not entirely, to exhale the water carried in skins by the camels for the use of the passengers and drivers. On these occasions it is affirmed by the Arabs, that five hundred dollars have been frequently given for a draught of water, and that ten or twenty dollars are commonly paid, when a partial exhalation has occurred. These scorching winds will be particularly described, in treating of atmospherical phenomena.

In 1805, a caravan proceeding from Tombuctoo to Tafilet, was disappointed in not finding water at one of the usual watering-places, when, horrible to relate, the whole of the persons belonging to it, two thousand in number, beside one thousand eight hundred camels, perished of thirst! Accidents of this nature, account for the vast quantities of human and other bones which are found heaped together in various parts of the desert.

The following is the general route of the caravans, in crossing the desert. Having left the city of Fez, the capital of Morocco, they proceed at the rate of three miles and a half an hour, and travel seven hours each day. In the space of eighteen days they reach Akka, where they remain a month, as this is the place of rendezvous at which they are formed into one grand accumulated caravan. In proceeding from Akka to Tagassa, sixteen days are employed; and here again, the caravan sojourns fifteen days to refresh the camels. It then directs its course to the *oasis* and well of Taudeny, which is reached in seven days; and, after another stay of fifteen days, proceeds to Arawan, a watering-place, situated at a like distance. After having sojourned there fifteen days, it sets out, and reaches Tombuctoo on the sixth day, after having performed a journey of fifty-four days of actual travelling, and seventy-five of repose, making, altogether, from Fez to Tombuctoo, one hundred and twenty-nine days, or four lunar months and nine days.

Another caravan sets out from Wedinooon and Sok Assa, traversing the desert between the black mountains of Cape Bojador and Gualata : it touches at Tagassa and El Garbie, or West Tagassa, where having staid to collect salt, it proceeds to Tombuctoo. The time occupied by this caravan is five or six months, as it proceeds as far as Gibbel-el-biéd, or the white mountains, near Cape Blanco, through the deserts of Mograffra and Woled Abusebah, to a place named Agadeen, where it sojourns twenty days.

The caravans which cross the desert, may be compared to fleets of merchant vessels under convoy, the *stata*, or convoy of the desert consisting of a certain number of Arabs, belonging to the tribe through whose territory the caravan passes. Thus, in crossing the territory of Woled Abusebah, it is accompanied by Sebayhees, or people of that country, who, on reaching the confines of the territory of Woled Deleim, deliver their charge to the protection of the chiefs of that country. These, again, conduct it to the confines of the territory of the Mograffa Arabs, under whose care it at length reaches Tombuctoo. Any assault on the caravan during this journey, is considered as an insult to the whole tribe to which the convoy belongs ; and for such an outrage they never fail to take ample revenge.

Besides these grand caravans, others cross the desert on an emergency, without a convoy, or guard. This is, however, a perilous expedition — as they are too often plundered near the northern confines of the desert, by two notorious tribes, named Dikna and Emjot. In the year 1798, a caravan consisting of two thousand camels, laden with the produce of the Souhan territory, together with seven hundred slaves, was plundered and dispersed, with great slaughter. These desperate attacks are conducted in the following manner. The tribe being assembled, the horses are picketed at the entrance of the tents, and scouts sent out to give notice when a caravan is likely to pass. These scouts being mounted on the heirie, or fleet horse of the desert, quickly communicate the intelligence, and the whole tribe mount their horses, taking with them a sufficient number of female camels, on whose milk they entirely subsist. Having placed themselves in ambush near an oasis, or watering-place, they issue thence

on the arrival of the caravan, which they plunder without mercy, leaving the unfortunate merchants entirely destitute.

The food, dress, and accommodations of the people who compose the caravans, are simple and natural. Being prohibited by their religion the use of wine and intoxicating liquors, and exhorted by its principles to temperance in all things, they are commonly satisfied with a few nourishing dates, and a draught of water, travelling for weeks successively without any other food. At other times, when they undertake a journey of a few weeks across the desert, a little barley meal, mixed with water, constitutes their only nourishment. In following up this abstemious mode of life, they never complain, but solace themselves with the hope of reaching their native country, singing occasionally during the journey, whenever they approach a habitation, or when the camels are fatigued. Their songs are usually sung *in trio*; and those of the camel-drivers who have musical voices, join in the chorus. These songs have a surprising effect in renovating the camels; while the symphony and time maintained by the singers, surpass what any one would conceive who has not heard them. The day's journey is terminated early in the afternoon, when the tents are pitched, prayers said, and the supper prepared by sun-set. The guests now arrange themselves in a circle, and, the sober meal being terminated, converse till they are overcome by sleep. At day-break next morning, they again proceed on their journey.

PILGRIMAGE ACROSS THE DESERTS.

THE following very lively description of a pilgrimage across the desert is given by Ali Bey, in his travels in Morocco, Tripoli, &c. It is an animated picture which portrays in the strongest colours the perils and sufferings encountered in these enterprises.

"We continued marching on in great haste, for fear of being overtaken by the four hundred Arabs whom we wished to avoid. For this reason we never kept the common road, but passed through the middle of the desert, marching through stony places, over easy hills. This country is entirely without water; not a tree is to be seen it, not a rock which can offer a shelter or a shade. A transparent atmosphere, an intense sun, darting its beams upon our

heads, a ground almost white, and commonly of a concave form, like a burning glass; slight breezes, scorching like a flame. Such is a faithful picture of this district, through which we were passing.

“Every man we meet in this desert is looked upon as an enemy. Having discovered about noon a man in arms, on horseback, who kept at a certain distance, my thirteen beduins united the moment they perceived him, darted like an arrow to overtake him, uttering loud cries, which they interrupted by expressions of contempt and derision; as, ‘*What are you seeking, my brother?*’ ‘*Where are you going, my son?*’ As they made these exclamations they kept playing with their guns over their heads. The discovered beduin profited of his advantage, and fled into the mountains, where it was impossible to follow him. We met no one else.

“We had now neither eaten nor drank since the preceding day; our horses and other beasts were equally destitute; though ever since nine in the evening we had been travelling rapidly. Shortly after noon we had not a drop of water remaining, and the men, as well as the poor animals, were worn out with fatigue. The mules, stumbling every moment, required assistance to lift them up again, and to support their burthen till they rose. This terrible exertion exhausted the little strength we had left.

“At two o’clock in the afternoon a man dropped down stiff, and as if dead, from great fatigue and thirst. I stopt with three or four of my people to assist him. The little wet which was left in one of the leathern budgets, was squeezed out of it, and some drops of water poured into the poor man’s mouth, but without any effect. I now felt that my own strength was beginning to forsake me; and becoming very weak, I determined to mount on horseback, leaving the poor fellow behind. From this moment others of my caravan began to drop successively, and there was no possibility of giving them any assistance; they were abandoned to their unhappy destiny, as every one thought only of saving himself. Several mules with their burdens were left behind, and I found on my way two of my trunks on the ground, without knowing what was become of the mules which had been carrying them, the drivers

having forsaken them as well as the care of my effects and of my instruments.

I looked upon this loss with the greatest indifference, as if they had not belonged to me, and pushed on. But my horse began now to tremble under me, and yet he was the strongest of the whole caravan. We proceeded in silent despair. When I endeavoured to encourage any one of the party to increase his pace, he answered me by looking steadily at me, and by putting his fore finger to his mouth to indicate the great thirst by which he was affected. As I was reproaching our conducting officers for their inattention, which had occasioned this want of water, they excused themselves by alleging the mutiny of the oudaias; and besides, added they, "Do we not suffer like the rest?" Our fate was the more shocking, as every one of us was sensible of the impossibility of supporting the fatigue to the place where we were to meet with water again. At last, at about four in the evening, I had my turn and fell down with thirst and fatigue.

Extended without consciousness on the ground, in the middle of the desert, left only with four or five men, one of whom had dropped at the same moment with myself, and all without any means of assisting me, because they knew not where to find water, and, if they had known it, had not strength to fetch it, I should have perished with them on the spot, if Providence, by a kind of miracle, had not preserved us.

Half an hour had already elapsed since I had fallen senseless to the ground, (as I have since been told,) when, at some distance, a considerable caravan, of more than two thousand souls, was seen advancing. It was under the direction of a marebout or saint called Sidi Alarbi, who was sent by the Sultan to Ttemsen or Tremecen. Seeing us in this distressed situation, he ordered some skins of water to be thrown over us. After I had received several of them over my face and hands, I recovered my senses, opened my eyes, and looked around me, without being able to discern any body. At last, however, I distinguished seven or eight sherifs and fakeers, who gave me their assistance, and shewed me much kindness. I endeavoured to speak to them, but an invincible knot in my

throat seemed to hinder me; I could only make myself understood by signs, and by pointing to my mouth with my finger.

They continued pouring water over my face, arms, and hands, and at last I was able to swallow small mouthfuls. This enabled me to ask, '*Who are you?*'. When they heard me speak, they expressed their joy, and answered me, '*Fear nothing; far from being robbers, we are your friends,*' and every one mentioned his name. I began by degrees to recollect their faces, but was not able to remember their names. They poured again over me a still greater quantity of water, gave me some to drink, filled some of my leather bags, and left me in haste, as every minute spent in this place was precious to them, and could not be repaired.

This attack of thirst is perceived all of a sudden by an extreme aridity of the skin; the eyes appear to be bloody, the tongue and mouth both inside and outside are covered with a crust of the thickness of a crown piece; this crust is of a dark yellow colour, of an insipid taste, and of a consistence like the soft wax from a beehive. A faintness or languor takes away the power to move; a kind of knot in the throat and diaphragm, attended with great pain, interrupts respiration. Some wandering tears escape from the eyes, and at last the sufferer drops down to the earth, and in a few moments loses all consciousness. These are the symptoms which I remarked in my unfortunate fellow travellers, and which I experienced myself.

I got with difficulty on my horse again, and we proceeded on our journey. My Beduins and my faithful Salem were gone in different directions to find out some water, and two hours afterwards they returned one after another, carrying along with them some good or bad water, as they had been able to find it; every one presented to me part of what he had brought; I was obliged to taste it, and I drank twenty times, but as soon as I swallowed it my mouth became as dry as before; at last I was not able either to spit or to speak.

The greatest part of the soil of the desert consists of pure clay, except some small traces of a calcareous nature. The whole surface is covered with a bed of chalky calcareous stone of a whitish colour, smooth, round, and loose,

and of the size of the fist; they are almost all of the same dimension, and their surface is carious like pieces of old mortar; I look upon this to be a true volcanic production. This bed is extended with such perfect regularity, that the whole desert is covered with it; a circumstance which makes pacing over it very fatiguing to the traveller.

Not any animal is to be seen in this desert, neither quadrupeds, birds, reptiles, nor insects, nor any plant whatever; and the traveller who is obliged to pass through it, is surrounded by the silence of death. It was not till four in the evening that we began to distinguish some small plants, burnt with the sun, and a tree of a thorny nature without blossom or fruit."

SANDS OF THE DESERT.

Now o'er their head the whizzing whirlwinds breathe,
And the live desert pants, and heaves beneath;
Tinged by the crimson sun, vast columns rise
Of eddying sands, and war amid the skies,
In red arcades the billowy plain surround,
And stalking turrets dance upon the ground.

DARWIN.

IN the pathless desert, high mounds of sand, shifting with every change of wind, surround the traveller on every side, and conceal from his view all other objects. There the wind is of a surprising rapidity, and the sand so extremely fine, that it forms on the ground waves which resemble those of the sea. These waves rise up so fast, that in a very few hours a hill of from twenty to thirty feet high is transported from one place to another. The shifting of these hills, however, does not take place on a sudden, as is generally believed, and is not by any means capable of surprising and burying a caravan while on the march. The mode in which the transposition of the hills takes place is not difficult of explanation. The wind sweeping the sand from the surface continually, and that with an astonishing rapidity, the ground lowers every moment: but the quantity of sand in the air increasing as quickly by successive waves, cannot support itself there, but falls in heaps, and forms a new hill, leaving the place it before occupied level, and with the appearance of having been swept.

It is necessary to guard the eyes and mouth against the quantity of sand which is always flying about in the air; and the traveller has to seek the right direction, to avoid being lost in the windings made in the middle of the hills of sand which bound the sight, and which shift from one spot to another so often, as not to leave any thing to be seen beside the sky and sand, without any mark by which the position can be known. Even the deepest footstep in the sand of either man or horse disappears the moment the foot is raised.

The immensity, the swiftness, and the everlasting motion of these waves disturb the sight both of men and beasts, so that they are almost continually marching as if in the dark. The camel gives here a proof of his great superiority; his long neck, perpendicularly erected, removes his head from the ground, and from the thick part of the waves; his eyes are well defended by thick eye-lids, largely provided with hair, and which he keeps half shut; the construction of his feet, broad and cushion-like, prevents his treading deep into the sand; his long legs enable him to pass the same space with only half the number of steps of any other animal, and therefore with less fatigue. These advantages give him a solid and easy gait, on a ground where all other animals walk with slow, short, and uncertain steps, and in a tottering manner. Hence the camel, intended by nature for these journeys, affords a new motive of praise to the Creator, who in his wisdom has given the camel to the African, as he has bestowed the rein-deer on the Laplander.

Lieutenant Pottinger, in his travels in Beloochistan, a province of India, gives the following interesting account of these curious phenomena. He had to pass over a desert of red sand, the particles of which were so light, that when taken in the hand they were scarcely more than palpable, the whole being thrown by the winds into an irregular mass of waves, principally running east and west, and varying in height from ten to twenty feet. The greater part of them rose perpendicularly on the opposite side to that from which the prevailing north-west wind blew, and might readily have been fancied, at a distance, to resemble a new brick wall. The side facing the wind sloped off with a gradual declivity towards the base of the next windward

wave, again ascending in a straight line, in the same extraordinary manner as above described, so as to form a hollow or path between them. Our traveller kept as much in these paths as the direction he had to take would allow; but it was not without great difficulty and fatigue that the camels were urged over the waves, when it was requisite to do so, and more particularly when they had to clamber up the lee-ward or perpendicular face of them, in attempting which they were often defeated. On the oblique or shelving side they ascended pretty well, their broad feet saving them from sinking deeper than did the travellers themselves; and the instant they found the top of the wave giving way from their weight, they most expertly dropped on their knees, and in that posture gently slid down with the sand, which was luckily so unconnected, that the leading camel usually caused a sufficient breach for the others to follow on foot. The night was spent under shelter of one of these sand waves, the surrounding atmosphere being uncommonly hot and close.

On the following day, in crossing a desert of the same description, the like impediments occurred; but these were trifling compared with the distress suffered, not only by our traveller and his people, but also by the camels, from the floating particles of sand—a phenomenon for which he confesses himself at a loss to account. When he first observed it, in the morning, the desert appeared to have, at the distance of half a mile or less, an elevated and flat surface from six to twelve inches higher than the summits of the sand waves. This vapour appeared to recede as he advanced, and once or twice completely encircled his party, limiting the horizon to a very confined space, and conveying a most gloomy and unnatural sensation to the mind of the beholders, who were at the same moment imperceptibly covered with innumerable atoms of small sand, which getting into the eyes, mouth and nostrils, caused excessive irritation, attended by an extreme thirst, which was increased in no small degree by the intense heat of the sun. This annoyance is supposed by the natives to originate in the solar beams causing the dust of the desert, as they emphatically call it, to rise and float through the air—a notion which appears to be in a great measure correct, this sandy ocean being only visible during the hottest part of the day.

The following simple theory of these moving sands is submitted by the author. When the violent whirlwinds which prevail in the desert, terminate in gusts of wind, they usually expand over several square miles of surface, raging with irresistible force, and bearing upwards an immense body of sand, which descends as the current of air that gave it action dies away, thus creating the extraordinary appearance in question. If it should be asked what prevents the sand from subsiding altogether, when it has so far accomplished this as to rest apparently on the waves, the answer is, that all the grosser particles do settle, but that the more minute ones become rarified to such a degree by the heat produced by the burning sand on the red soil, that they remain as it were in an undecided and undulating state, until the returning temperature restores their specific gravity, when, by an undeviating law of nature, they sink to the earth. This in some measure coincides with the opinion of the native Brahoes; but, conformably to their notion, it is evident that the floating sands would be apparent at all periods of excessive solar influence, which not being the case, it becomes necessary to find a primary cause for the phenomenon. To remove any suspicion of his having been deceived in the reality of this floating vapour of sand, he adds that he has seen this phenomenon, and the Suhrab, or watery illusion so frequent in deserts, called by the French *mirage*, in opposite quarters at the same moment, each of them being to his sight perfectly distinct. While the former had a cloudy and dim aspect, the latter was luminous, and could only be mistaken for water. To corroborate what he has here advanced, he states that he was afterwards joined by a fakeer from Kaboul, who informed him that he had witnessed the moving sands, in passing through the desert from Seistan, to a much greater degree than has been described; and, what is scarcely credible, he spoke of having been forced to sit down, in consequence of the density of the cloud in which he was enveloped.

Our traveller next proceeds to a curious description of the pillars or columns of sand formed in the deserts. He experienced a violent tornado, or gust of wind, which came on so suddenly, that, if he had not been apprized of its strength by the guide, it might have been disastrous to his party, in whom it would have been an act of teme-

city to have endeavoured to sit on the camels during its impetuous fury. Before it began, the sky was clear, save a few small clouds in the north-west quarter; and the only warnings it afforded, were the oppressive sultriness of the air, and a vast number of whirlwinds springing up on all sides. These whirlwinds, he observes, might perhaps be more correctly expressed by some other name; but as the wind issued from them, he adopts the term. They are vast columns of sand, which begin by a trifling agitation, with a revolving motion on the surface of the desert, and gradually ascend and expand, until their tops are lost to the view. In this manner they move about with every breath of wind, and are observed, thirty or forty of them at the same time, of different dimensions, apparently from one to twenty yards in diameter. Those who have seen a water-spout at sea, may exactly conceive the same formed of sand on shore. The moment the guide saw the whirlwinds disperse, which they did as if by magic, and a cloud of dust approaching, he advised the party to dismount, which they had hardly time to do, and lodge themselves snugly behind the camels, when a storm burst upon them with a furious blast of wind, the rain falling in huge drops, and the air being so completely darkened, that they were unable to discern any object at the distance of even five yards.

The following is Bruce's account of this singular phenomenon, which he represents as one of the most magnificent spectacles imaginable, and by which himself and his companions were at once surprised and terrified. Having reached the vast expanse of desert which lies to the west and north-west of Chendi, they saw a number of prodigious pillars of sand at different distances, at times moving with great celerity, and at others stalking on with a majestic slowness. At intervals the party thought they should be overwhelmed by these sand pillars; and small quantities of sand did actually more than once reach them. Again, they would retreat so as to be almost out of sight, their summits reaching to the very clouds. There the tops often separated from the bodies; and these, once disjointed, dispersed in the air, and did not appear more. They were sometimes broken near the middle, as if struck with a large cannon-shot. About noon they began to advance with consi-

derable swiftness upon the party, the wind being very strong at north. Eleven of them ranged alongside, at about the distance of three miles from them; and at this interval the greatest diameter of the largest of them appeared to Mr. Bruce to be about ten feet. They retired with a wind at south-east, leaving an impression on our traveller's mind, to which he could give no name, though assuredly one of its ingredients was fear, blended with a considerable portion of wonder and surprise. It was in vain to think of fleeing: the swiftest horse, or fastest-sailing ship, would not have been of any use in rescuing him from his danger. The full persuasion of this riveted him as it were to the spot where he stood, and he allowed the camels to gain on him so much, that it was with difficulty he could overtake them.

On a subsequent occasion, an assemblage of these moving pillars of sand, more numerous, but less in size than the former, approached Mr. Bruce's party soon after sun-rise, and appeared like a thick wood. They almost darkened the sun, the rays of which, shining through them for nearly an hour, gave them an appearance of pillars of fire. His people became desperate, some saying it was the day of judgment—and others, that the world was on fire.

Dr. Clarke, in his more recent travels in Egypt, thus describes this phenomenon.

One of those immense columns of sand, mentioned by Bruce, came rapidly towards us, turning upon its base as upon a pivot: it crossed the Nile so near us, that the whirlwind by which it was carried placed our vessel upon its beam-ends, bearing its large sail quite into the water, and nearly upsetting the boat. As we were engaged in righting the vessel, the column disappeared. It is probable that those columns do not fall suddenly upon any particular spot, so as to be capable of overwhelming an army or a caravan; but that, as the sand, thus driven, is gradually accumulated, it becomes gradually dispersed, and the column, diminishing in its progress, at length disappears. A great quantity of sand is no doubt precipitated as the effect which gathers it becomes weaker; but, from witnessing such phenomena upon a smaller scale, it does not seem likely that the whole body of the sand is at once abandoned.