

Awful Phenomena of Nature. ^{12.}

AN ACCOUNT OF

Some of the

Most Remarkable

EARTHQUAKES,

VOLCANIC ERUPTIONS,

SEA STORMS,

HURRICANES &c.

Which have happened in the known
World:

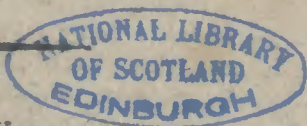
With the Calamitous Effects, which have resulted
from those Dreadful Convulsions of the Elements.

IN FOUR PARTS.

Collected from good Authorities.

“ Sweet Innocence ! thou stranger to offence,
“ And inward storm ! He who yon’ skies involves
“ In frowns of darkness, ever smiles on thee
“ With kind regard.”

THOMSON.



Printed in the Year 1799.

1840
of
1840

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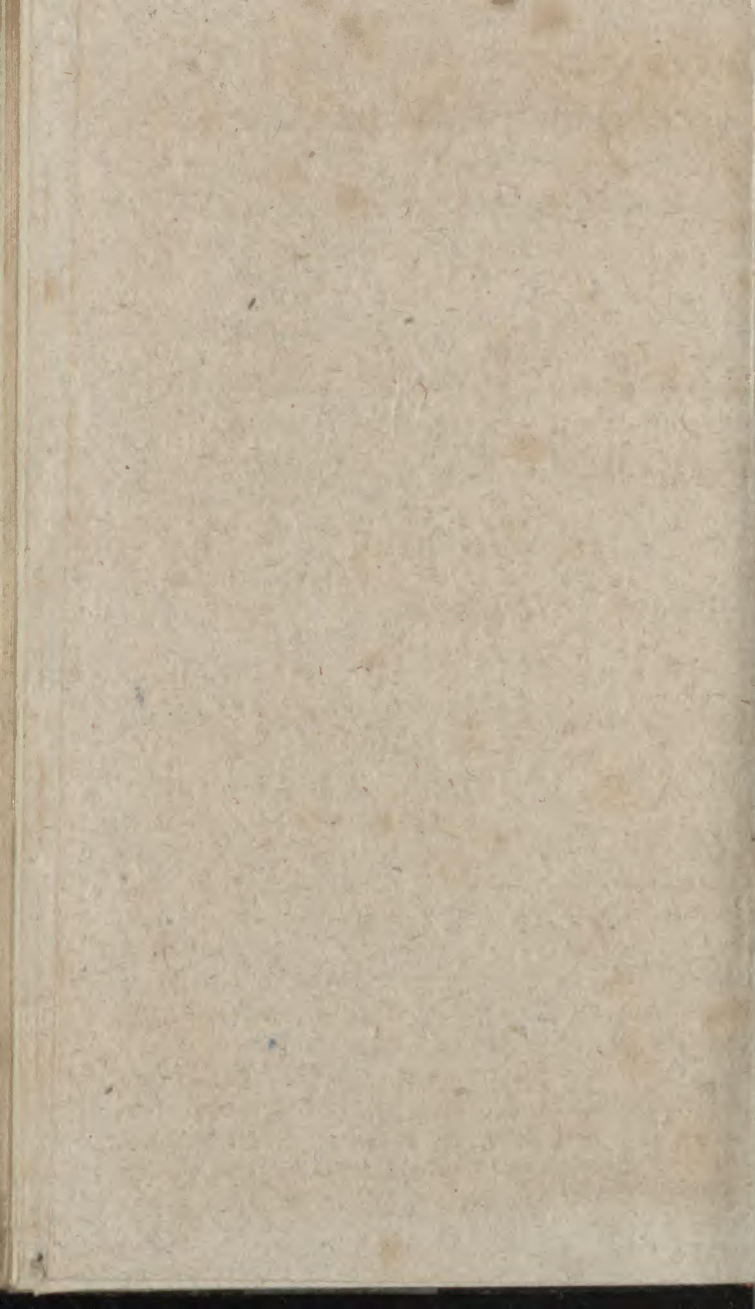
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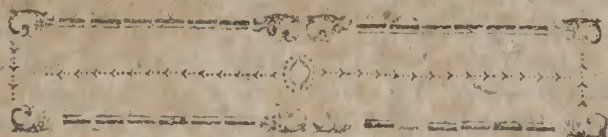


Awful Phenomena
of Nature,

PART FIRST,

EARTHQUAKES





ACCOUNT OF SEVERAL
Remarkable Earthquakes, &c.

*Kircher's Account of the Earthquake in Calabria,
in 1638.*

ON the 24th of March, we lanch'd (in a small boat) from the harbour of Messina in Sicily, and arriv'd the same day at the promontory of Pelorus. Our destination was for the city of Euphemia in Calabria; but on account of the weather, we were oblig'd to continue three days at Pelorus. At length, wearied with the delay, we resolv'd to prosecute our voyage; and although the sea seem'd more than usually agitated, yet we ventur'd forward. The gulph of Charybdis, which we approach'd, seem'd whirled round in such a manner as to form a vast hollow, verging to a point in the

centre. Proceeding onward, and turning my eye to Mount *Ætna*, I saw it cast forth large volumes of smoke, of mountainous size, which entirely covered the island, and blotted out even the shores from my view. This, together with the dreadful noise and the sulphureous stench, which was strongly perceived, filled me with apprehensions that some more dreadful calamity was impending. The sea itself seemed to wear a very unusual appearance: those who have seen a lake in a violent shower of rain all covered over with bubbles, will have some idea of its agitations. My surprize was still increased by the calmness and serenity of the weather; not a breeze, not a cloud, which might be supposed to put all nature thus into motion. I therefore warned my companion, that an earthquake was approaching; and, after some time, making for the shore with all possible diligence, we landed at *Tropæ*. But we had scarce arrived at the Jesuits college in that city, when our ears were stunned with an horrid sound, resembling that of an infinite number of chariots driven fiercely forward, the wheels rattling and the thongs cracking. Soon after this, a most dreadful earthquake ensued; so that the whole track upon which we stood seemed to vibrate, as we were in the scale of a balance that continued waving. This motion, however, soon grew more violent; and being no longer able to keep my legs, I was thrown prostrate upon the ground. After some time, finding that I remained unhurt amidst the general concussion, I resolved to venture for safety; and running as fast as I could, reached the shore. I did not tarry long here, till I found the boat in which I had landed, and my companion also. Leaving this seat of desolation, we prosecuted our voyage along the coast; and the next day came to *Rochetta*, where we landed, although the

earth still continued in violent agitations. But we were scarce arrived at our inn, when we were once more obliged to return to our boat; and in about half an hour we saw the greatest part of the town, and the inn at which we had set up, dashed to the ground, and burying all its inhabitants beneath its ruins. Proceeding onward in our little vessel, we at length landed at Lopizium, a castle mid-way between Tropæa and Euphemia the city to which we were bound. Here, wherever I turned my eyes, nothing but scenes of ruin and horror appeared; towns and castles levelled to the ground; Stromboli, though at 60 miles distance, belching forth flames in an unusual manner, and with a noise which I could distinctly hear. But my attention was quickly turned from more remote to contiguous danger. The rumbling sound of an approaching earthquake, which by this time we were grown acquainted with, alarmed us for the consequences. It every moment seemed to grow louder, and to approach more near. The place on which we stood now began to shake most dreadfully; so that, being unable to stand, my companions and I caught hold of whatever shrub grew next us, and supported ourselves in that manner. After some time, the violent paroxysm ceasing, we again stood up, in order to prosecute our voyage to Euphemia, which lay within sight. In the mean time, while we were preparing for this purpose, I turned my eyes towards the city, but could see only a frightful dark cloud, that seemed to rest upon the place. This the more surprised us, as the weather was so very serene. We waited, therefore, till the cloud was passed away: then turning to look for the city, it was totally sunk; and nothing but a dismal and putrid lake was to be seen where it stood.

*Account of the Earthquake that happened in Jamaica,
in 1692.*

IN 1692, an Earthquake happened in Jamaica.—
 I In two minutes, it destroyed the town of Port
 Royal, at that time the capital of the island; and
 sunk the houses in a gulph 40 fathoms deep. It
 was attended with an hollow rumbling noise like that
 of thunder: the streets rose like the waves of the
 sea; first lifting up the houses, and then immediate-
 ly throwing them down into deep pits. All the
 wells discharged their waters with the most violent
 agitation. The sea burst over its bounds, and de-
 luded all that stood in its way. The fissures of the
 earth were in some places so great, that one of the
 streets appeared twice as broad as formerly. In
 many places it opened and closed again; and conti-
 nued this agitation for some time. Of these open-
 ings, great numbers might be seen at once. In
 some of them, the people were swallowed up at
 once; in others, the earth caught them by the
 middle, and crushed them to death; while others,
 more fortunate, were swallowed up in one chasm,
 and thrown out alive by another. Other chasms
 were large enough to swallow up the whole streets;
 and others; still more formidable, spouted up im-
 mense quantities of water drowning such as the
 earthquake had spared. The whole was attended
 with stench and offensive smells, the noise of fal-
 ling mountains at a distance, &c.; and the sky, in
 a minute's time, was turned dull and reddish, like
 a glowing oven. Yet, as great a sufferer as Port-
 Royal was, more houses were left standing therein
 than on the whole island besides. Scarce a planting-
 house, or sugar-house, was left standing in all Jamai-
 ca. A great part of them were swallowed up, houses;
 people, trees, and all, in one gap: in lieu of which,
 afterwards appeared great pools of water; which,

when dried up, left nothing but sand, without any mark that ever tree or plant had grown thereon. The shock was so violent, that it threw people down on their knees or their faces as they were running about for shelter. Several houses were shuffled some yards out of their places, and yet continued standing. One Hopkins had his plantation removed half a mile from the place where it stood, without any considerable alteration. All the wells in the island, as well as those of Port-Royal, from one fathom to six or seven deep, threw their water out at the top with great violence. Above 12 miles from the sea, the earth gaped and spouted out, with a prodigious force, vast quantities of water into the air: yet the greatest violences were among the mountains and rocks; and it is a general opinion, that the nearer the mountains, the greater the shock; and the cause thereof lay among them. Most of the rivers were stopped up for 24 hours by the falling of the mountains; till swelling up, they made themselves new tracks and channels; tearing up, in their passage, trees, &c. After the great shock, those people who escaped got on board ships in the harbour, where many continued above two months; the shocks all that time being so violent, and coming so thick, sometimes two or three in an hour, accompanied with frightful noises like a rushing wind, or a hollow rumbling thunder, with orianstone-blasts, that they durst not come ashore. The consequence of the earthquake was a general sickness, from the noisome vapours belched forth, which swept away above 300. persons.

Of the Earthquake in Sicily, in 1693.

IN 1693 an earthquake happened in Sicily, which may justly be accounted one of the most terrible of which we have any account. It shook the whole

land: and not only that, but Naples and Malta were
 red in the shock. It was impossible for any body
 in this country to keep on their legs on the dancing
 earth; nay, those that lay on the ground were tumbled
 from side to side as on a rolling billow: his walls leaped
 from their foundations several paces
 &c. The mischief it did is amazing; almost all the
 buildings in the countries were thrown down. Fifty-four
 cities and towns, beside an incredible number of villages,
 were either destroyed or greatly damaged. We shall only
 instance the fate of Catania, one of the most famous,
 ancient, and flourishing cities in the kingdom; the residence
 of several monarchs, and an university. This once famous
 city had the greatest share in the tragedy. Father Anthon.
 Serrovita, being on his way thither and at the distance
 of a few miles, observed a black cloud like night hovering
 over the city; and there arose from the mouth of Montgibello
 great spiracles of flame, which spread all around. The sea
 all of a sudden began to roar and rise in billows; and there
 was a blow, as if all the artillery in the world had
 been at once discharged. The birds flew about astonished;
 the cattle in the fields ran crying, &c. His and his
 companions horses stopped short, trembling; so that they
 were forced to alight. They were no sooner off, but they
 were lifted from the ground above two palms, when
 casting his eyes towards Catania, he with amazement
 saw nothing but a thick cloud of dust in the air. This
 was the scene of their calamity, for of the magnificent
 Catania, there was not the least footstep to be seen.
 S. Bonajutus assures us, that of 18900 inhabitants
 18000 perished therein.

*This and the two preceding accounts are taken from
 Encyclopædia Britannica 3d Editn. vol. 6—EAR.*

*An account of the Great Earthquake, that happened at
Lisbon, November the first 1755.*

THERE never was a finer morning seen than the first of November (1755); the sun shone out in its full lustre; the whole face of the sky was perfectly serene and clear, and not the least signal or warning of that approaching event, which has made this once flourishing, opulent, and populous city a scene of the utmost horror and desolation, except only such as served to alarm, but scarcely left a moment's time to fly from the general destruction.

It was on the morning of this fatal day, between the hours of nine and ten, that I was sat down in my apartment, just finishing a letter, when the papers and table I was writing on began to tremble with a gentle motion, which rather surprized me, as I could not perceive a breath of wind stirring; whilst I was reflecting with myself what this could be owing to, but without having the least apprehension of the real cause, the whole house began to shake from the very foundation, which at first I imputed to the rattling of several coaches in the main street, which usually passed that way, at this time, from Belem to the palace; but on hearkening more attentively, I was soon undeceived, as I found it was owing to a strange frightful kind of noise under ground, resembling the hollow distant rumbling of thunder; all this passed in less than a minute, and I must confess I now began to be alarmed, as it naturally occurred to me, that this noise might possibly be the forerunner of an earthquake, as one I remembered, which had happened about six or seven years ago, in the Island of Madeira, commenced in the same manner, though it did little or no damage.

Upon this I threw down my pen, and started upon my feet, remaining a moment in suspense,

whether I should stay in the apartment, or run into the street, as the danger in both places seemed equal, and still flattering myself that this tremor might produce no other effects than such inconsiderable ones as had been felt at Madeira; but in a moment I was roused from my dream, being instantly stunned with a most horrid crash, as if every edifice in the city had tumbled down at once. The house I was in shook with such violence, that the upper stories immediately fell, and though my apartment (which was the first floor) did not then share the same fate, yet every thing was thrown out of its place in such a manner, that it was with no small difficulty I kept my feet, and expected nothing less than to be soon crushed to death, as the walls continued rocking to and fro in the frightfullest manner, opening in several places, large stones falling down on every side from the cracks, and the ends of most of the rafters starting out from the roof. To add to this terrifying scene, the sky in a moment became so gloomy, that I could now distinguish no particular objects; it was an Egyptian darkness indeed, such as might be felt, owing, no doubt, to the prodigious clouds of dust and lime, raised from so violent a concussion, and as some reported, to sulphureous exhalations, but this I cannot affirm; however, it is certain I found myself almost choaked for near ten minutes.

‘As soon as the gloom began to disperse, and the violence of the shock seemed pretty much abated, the first object I perceived in the room was a woman sitting on the floor, with an infant in her arms, all covered with dust, pale and trembling; I asked her how she got hither: but her consternation was so great that she could give me no account of her escape; I suppose, that when the tremor first began, she ran out of her own house, and

finding herself in such imminent danger from the falling of stones, retired into the door of mine, which was almost contiguous to her's, for shelter, and when the shock increased, which filled the door with dust and rubbish, ran up stairs into my apartment, which was then open: be it as it might, this was no time for curiosity. I remember the poor creature asked me, in the utmost agony, if I did not think that the world was at an end; at the same time she complained of being choaked, and begged for God's sake I would procure her a little drink; upon this I went to a closet where I kept a large jar with water (which you know is sometimes a pretty scarce commodity in Lisbon) but finding it broken in pieces, I told her she must not now think of quenching her thirst, but saving her life, as the house was just falling on our heads, and if a second shock came, would certainly bury us both; I bade her take hold of my arm, and that I would endeavour to bring her into some place of security.

' I shall always look upon it as a particular providence, that I happened on this occasion to be undressed, for had I dressed myself, as I proposed, when I got out of bed, in order to breakfast with a friend, I should, in all probability, have run into the street at the beginning of the shock, as the rest of the people in the house did, and consequently have had my brains dashed out, as every one of them had; however, the imminent danger I was in did not hinder me from considering that my present dress, only a gown and slippers, would render my getting over the ruins almost impracticable: I had, therefore, still presence of mind enough left to put on a pair of shoes and a coat, the first that came in my way, which was every thing I saved, and in this dress I hurried down stairs, the woman with me, holding by my arm, and made directly to that end

of the street that opens to the Tagus, but finding the passage this way entirely blocked up with the fallen houses to the height of their second stories, I turned back to the other end which led into the main street (the common thoroughfare to the palace) and having helped the woman over a vast heap of ruins, with no small hazard to my own life, just as we were going into the street, as there was one part I could not well climb over without the assistance of my hands, as well as feet, I desired her to let go her hold, which she did, remaining two or three feet behind me, at which time there fell a vast stone, from a tottering wall, and crushed both her and the child in pieces: so dismal a spectacle at any other time would have affected me in the highest degree, but the dread I was in of sharing the same fate myself, and the many instances of the same kind which presented themselves all around, were too shocking to make me dwell a moment on this single object.

‘I had now a long narrow street to pass, with the houses on each side four or five stories high, all very old, the greater part already thrown down, or continually falling, and threatening the passengers with inevitable death at every step, numbers of whom lay killed before me, or what I thought far more deplorable—so bruised and wounded that they could not stir to help themselves. For my own part, as destruction appeared to me unavoidable, I only wished I might be made an end of at once, and not have my limbs broken, in which case I could expect nothing else but to be left upon the spot, lingering in misery, like these poor unhappy wretches, without receiving the least succour from any person.

‘As self-preservation, however, is the first law of nature, these sad thoughts did so far prevail, as

to make me totally despair. I proceeded on as fast as I conveniently could, though with the utmost caution, and having at length got clear of this horrid passage, I found myself safe and unhurt in the large open space before St. Paul's church, which had been thrown down a few minutes before, and buried a great part of the congregation, that was generally pretty numerous, this being reckoned one of the most populous parishes in Lisbon. Here I stood some time, considering what I should do, and not thinking myself safe in this situation, I came to the resolution of climbing over the ruins of the west end of the church, in order to get to the river side, that I might be removed, as far as possible, from the tottering houses, in case of a second shock.

This, with some difficulty, I accomplished, and here I found a prodigious concourse of people, of both sexes, and of all ranks and conditions, among whom I observed some of the principal canons of the patriarchal church, in their purple robes and crochets, as these all go in the habit of bishops; several priests who had run from the altars in their sacerdotal vestments in the midst of their celebrating mass; ladies half dressed, and some without shoes; all these, whom their mutual dangers had here assembled as to a place of safety, were on their knees at prayers, with the terrors of death in their countenances, every one striking his breast, and crying out incessantly, *Misericordia meu Deus.*

In the midst of our devotions, the second great shock came on, little less violent than the first, and completed the ruin of those buildings which had been already much shattered. The consternation now became so universal, that the shrieks and cries *Misericordia* could be distinctly heard from the foot of St. Catherine's hill at a considerable distance; whither a vast number of people had likewise

retreated; at the same time we could hear the fall of the parish church there, whereby many persons were killed on the spot, and others mortally wounded. You may judge of the force of this shock when I inform you, it was so violent, that I could scarce keep on my knees, but it was attended with some circumstances still more dreadful than the former.—On a sudden I heard a general outcry, ‘The sea is coming in, we shall be all lost.’—Upon this turning my eyes towards the river, which in that place is near four miles broad, I could perceive a heaving and swelling in a most unaccountable manner, as no wind was stirring; in an instant there appeared, at some small distance, a large body of water, rising like a mountain; it came on foaming and roaring, and rushed towards the shore with such impetuosity, that we all immediately ran for our lives as fast as possible; many were actually swept away, and the rest above their waist in water at good distance from the banks. For my own part I had the narrowest escape, and should certainly have been lost, had I not grasped a large beam that lay on the ground, till the water returned to its channel which it did almost at the same instant, with equal rapidity. As there now appeared at least as much danger from the sea as the land, and I scarce knew whether to retire for shelter, I took a sudden resolution of returning back with my cloaths all dropping, to the area of St. Paul’s: here I stood some time, and observed the ships tumbling and tossing about, as in a violent storm; some had broken the cables, and were carried to the other side of the Tagus; others were whirled round with incredible swiftness; several large boats were turned keel upwards; and all this without any wind, which seemed the more astonishing. It was at the time which I am now speaking, that the fine new qua

built of rough marble, an immense expence, was entirely swallowed up, with all the people on it, who had fled thither for safety, and had reason to think themselves out of danger in such a place; at the same time a great number of boats and small vessels, anchored near it (all likewise full of people, who had retired thither for the same purpose) were all swallowed up, as in a whirlpool, and never more appeared.

This last dreadful incident I did not see with my own eyes, as it passed three or four stone throws from the spot where I then was, but I had the account as here given from several masters of ships, who were anchored within two or three hundred yards of the quay, and saw the whole catastrophe. One of them in particular informed me, that when the second shock came on, he could perceive the whole city waving backwards and forwards, like the sea when the wind first begins to rise; that the agitation of the earth was so great even under the river, that it threw up his large anchor from the mooring, which swam, as he termed it, on the surface of the water; that immediately upon this extraordinary concussion, the river rose at once near twenty feet, and in a moment subsided; at which instant he saw the quay, with the whole concourse of people upon it, sink down, and at the same time every one of the boats and vessels that were near it were drawn into the cavity, which he supposes instantly closed upon them, inasmuch as not the least sign of a wreck was ever seen afterwards. This account you may give full credit to, for as to the loss of the vessels, it is confirmed by every body; and with regard to the quay, I went myself a few days after, to convince myself of the truth, and could not find even the ruins of a place, where I had taken so many agreeable walks, as this was the

common rendezvous of the factory in the cool of the evening. I found it all deep water, and in some parts scarcely to be fathomed.

This is the only place I could learn which was swallowed up in or about Lisbon, though I saw many large cracks and fissures in different parts, and one odd phenomenon I must not omit, which was communicated to me by a friend who had a house and wine-cellars on the other side of the river, viz. that the dwelling-house being first terribly shaken, which made all the family run out, there presently fell down a vast high rock near it, that upon this the river rose and subsided in the manner already mentioned, and immediately a great number of small fissures appeared in several contiguous-pieces of ground, whence there spouted out like a *jet d'eau* a large quantity of fine white sand, to a prodigious height.

I had not been long in the area of St. Paul's, when I felt the third shock, which though somewhat less violent than the two former, the sea rushed in again, and retired with the same rapidity, and I remained up to my knees in water, though I had gotten upon a small eminence at some distance from the river, with the ruins of several intervening houses to break its force. At this time I took notice the waters retired so impetuously, that some vessels were left quite dry, which rode in seven fathom water: the river thus continued alternately rushing on and retiring several times together in such sort, that it was justly dreaded Lisbon would now meet the same fate, which a few years ago had befallen the city of * Lima.

* Perhaps you may think the present doleful subject here concluded; but, alas! the horrors of the first of November, are sufficient to fill a volume.

* This happened in 1764.

As soon as it grew dark, another scene presented itself little less shocking than those already described—the whole city appeared in a blaze, which was so bright that I could easily see to read by it. It may be said, without exaggeration, it was on fire at least in a hundred different places at once, and thus continued burning for six days together, without intermission, or the least attempt being made to stop its progress.

I could never learn, that this terrible fire was owing to any subterraneous eruption, as some reported, but to three causes, which all concurring at the same time, will naturally account for the prodigious havock it made; the first of November being All Saints Day, a high festival among the Portuguese, every altar in every church and chapel (some of which have more than twenty) was illuminated with a number of wax tapers and lamps, as customary; these setting fire to the curtains and timber work that fell with the shock, the conflagration soon spread to the neighbouring houses, and being there joined with the fires in the kitchen chimnies, increased to such a degree, that it might easily have destroyed the whole city, though no other cause had concurred, especially as it met with no interruption.

But what would appear incredible to you, were the fact less public and notorious, is, that a gang of hardened villains, who had been confined, and got out of prison when the wall fell, at the first shock, were busily employed in setting fire to those buildings, which stood some chance of escaping the general destruction.

The fire, by some means or other, may be said to have destroyed the whole city, at least every thing that was grand or valuable in it; and the damage on this occasion is not to be estimated.

‘ The whole number of persons that perished, including those who were burnt, or afterwards crushed to death whilst digging in the ruins, is supposed, on the lowest calculation, to amount to more than sixty thousand; and though the damage in other respects cannot be computed, yet you may form some idea of it, when I assure you, that this extensive and opulent city, is now nothing but a vast heap of ruins, that the rich and poor are at present upon a level, some thousands of families which but the day before had been easy in their circumstances, being now scattered about in the fields, wanting every conveniency of life, and finding none able to relieve them.

‘ A few days after the first consternation was over, I ventured down into the city, by the safest ways I could pick out, to see if there was a possibility of getting any thing out of my lodgings, but the ruins were now so augmented by the late fire, that I was so far from being able to distinguish the individual spot where the house stood, that I could not even distinguish the street, amidst the mountains of stone and rubbish which rose on every side. Some days after, I ventured down again with several porters, who, having long plied in these parts of the town, were well acquainted with the situation of particular houses; by their assistance, I at last discovered the spot; but was soon convinced, that to dig for any thing there, besides the danger of such an attempt, would never answer the expectation.

‘ On both the times when I attempted to make this fruitless search, especially the first, there came such an intolerable stench from the dead bodies, that I was ready to faint away, and though it did not seem so great this last time, yet it had nearly been more fatal to me, as I contracted a fever by it, but of which, God be praised, I soon got the bet-

r. However, this made me so cautious for the future, that I avoided passing near certain places, where the stench was so excessive that people began to dread an infection: a gentleman told me, that being into the town a few days after the earthquake, he saw several bodies lying in the streets, some horribly mangled, as he supposed, by the dogs, others half burnt, some quite roasted; and that in certain places, particularly near the doors of churches, they lay in vast heaps piled one upon another.

Extracted from a Volume of Letters, published a few years ago by the Reverend Mr. Davy — See Gregory's Economy of Nature vol 2nd. page 396, to 375 inclusive, second edition.

EARTHQUAKES,

In Calabria and Sicily, in 1783.

The year 1783 was fatally marked by the desolations of some of the most fertile, most beautiful, and most celebrated provinces of Europe. The two Calabrias, with a part of Sicily, were doomed to be a scene of the most tremendous, and the most fatal earthquakes that ever were known, even in those volcanic regions. The first shock happened about noon, on the 5th of February, and was so violent to involve almost the whole of Calabria in ruin. This was but the commencement of a succession of earthquakes, which beginning from the city of Crotone, on the coast of the Tyrrhene sea, proceeded along the western coast to Cape Spartivento, and up the eastern as far as Cape D'Alia; during the whole of which space not a town was left undestroyed.

During two years repeated shocks continued to

agitate the affrighted minds of the inhabitants of Calabria and Sicily, but the principal mischief arose in the months of February and March in the first year. For several months the earth continued in an unceasing tremor, which at certain intervals increased to violent shocks, some of which were beyond description dreadful. These shocks were sometimes horizontal, whirling like a vortex; and sometimes by pulsations or beating from the bottom upwards, and were at times so violent that the heads of the largest trees almost touched the ground on either side. The rains, during a great part of the time were continual and violent, often accompanied with lightning, and furious gusts of wind. All that part of Calabria, which lay between the 38th and 39th degrees, assumed a new appearance. Houses, churches, towns, cities, and villages, were buried in one promiscuous ruin. Mountains were detached from their foundations, and carried to a considerable distance. Rivers disappeared from their beds, and again returned and overflowed the adjacent country. Streams of water suddenly gashed out of the ground and sprang to a considerable height. Large pieces of the surface of the plain, several acres in extent were carried five hundred feet from their former situation down into the bed of the river, and left standing at nearly the distance of a mile, surrounded by large plantations of olives and mulberry trees and corn growing as well upon them as upon the ground from which they were separated. Amidst these scenes of devastation, the escapes of some of the unhappy sufferers is extremely wonderful. Some of the inhabitants of houses which were thrown to a considerable distance, were dug out from their ruins unhurt. But these instances were few, and those who were so fortunate as to preserve their lives in such situations, were content to purchase existence

t the expence of broken limbs and the most dreadful contusions.

During this calamitous scene, it is impossible to conceive the horrors and wretchedness of the unhappy inhabitants. The jaws of death were opened to swallow them up; ruin had seized all their possessions, and those dear connections to which they might have looked for consolation in their sorrows, were for ever buried in the merciless abyss. All was ruin and desolation. Every countenance indicated the extremity of affliction and despair; and the whole country formed a wide scene of undescrivable horror.

One of the most remarkable towns which was destroyed was Casal Nuova, where the Princess Grace Grimaldi, with more than four thousand of her subjects, perished in the same instant. An inhabitant happening to be on the summit of a neighbouring hill at the moment of the shock, and looking earnestly back to the residence of his family, could see no other remains of it than a white cloud which proceeded from the ruins of the houses. At Baginara, about three thousand persons were killed, and not fewer at Rzdicina and Palma. At Terra Nuova four thousand four hundred perished, and rather more at San niari. The inhabitants of Scilla escaped from their houses on the celebrated rock of that name, and with their prince, descended to a little harbour at the foot of the hill; but, in the course of the night, a stupendous wave, which is said to have been driven three miles over land, on its return swept away the unfortunate prince, with two thousand four hundred and seventy-three of his subjects. It is computed that not less than forty thousand persons perished by this earthquake.

*Greg. Econ. of nature, vol. 2nd.
page 375 to 378. incl.*

Earthquakes in Scotland:

ALTHO this kingdom is happily free from the dreadful calamities experienced in many other parts of the world, from these terrible convulsions of nature, yet occasional shocks of earthquakes have been felt in Scotland, within these 13 years. William Creech, Esq. in his letter to Sir J. Sinclair, annexed to the *Statistical Account of Edinburgh*, (Vol. VI. p. 624) and other physical phenomena, enumerates the following: Upon the 16th June, 1786, a smart shock of an earthquake was felt at Whitehaven, in Cumberland, which extended to the Isle of Man and Lblin, and was also felt in the SW. parts of Scotland. Upon the 11th of Aug. 1786, a very alarming shock of an earthquake was felt about two o'clock A. M. in the N. of England, viz. Northumberland, Cumberland, and in Scotland, across the island and as far N. as Argyllshire; and in all these places at the same instant of time. This shock extended above 150 miles from S. to N. and 100 from E. to W.— Upon the 25th Jan. 1787, the river Forth viot became suddenly dry, and continued so for several hours, and then flowed with its usual fulness. “On the 26th Jan. 1787. a smart shock of an earthquake was felt in the parishes of Campsie and Strathblane, 10 miles N. of Glasgow, and about 10 A. M. A rushing noise was heard to precede the shock from the SE. The night preceding the earthquake, a piece of ground near Alloa, on which a mill was built, suddenly sunk a foot and a half.” “On Thursday, 5th Nov. 1789, between 5 and 6 P. M, a smart shock of an earthquake, was felt at Crieff, at Comrie, and for many miles round the district, which is about 55 miles from Edinburgh.” “At Mr. Robertson’s house of Lawers, a rumbling noise like distant thunder had been heard at inter-

vals for two months; and at the time of the shock, a noise like the discharge of distant artillery was distinctly heard. Mr. Dundas and Mr. Bruce of Edinburgh, were standing before the fire in the drawing room, and they described the shock, as if a great mallet had suddenly struck the foundation of the house with violence. At the village of Comrie, the inhabitants left their houses and ran to the open fields."—"On the 11th Nov. A. M. in the same place, another shock was felt, which was much more violent than that of the 5th. It was accompanied with a hollow rumbling noise. The ice on a piece of water near the house of Lavers, was shivered to atoms." Mr. Creech, after quoting from the London Chronicle, the account of the earthquake at Berge San Sepolero, on the 30th of Sept. 1789, adds, "It is very extraordinary, that on the same day, near 3 P. M. two or three distinct shocks were felt at the house of Parion's Green, within a mile of Edinburgh. The house is situated on the N. side of Arthur's Seat, which is composed of an immense blue granite. Several visitors were in the house to dine with the family, and the whole company ran down stairs from the drawing-room, and met the servants from the kitchen, in the lobby, equally alarmed at what had happened. They described the sensation, as if the house had received two or three violent blows in the foundation, so that all the furniture shook."—"On the 10th Nov. 1792 three repeated shocks of an earthquake, accompanied with a hollow rumbling noise, like that of distant thunder, were felt at Loch Rannoch, in Perthshire." Mr. Creech concludes his account of these and other physical-phenomena, with an extract of a letter from "Comrie, in Perthshire," dated "Nov. 30th 1792," from which we shall only quote the facts related. We have of late, been greatly alarmed with

several very severe shocks of an earthquake. They were more sensible and alarming, than any formerly, and the noise attending them was uncommonly loud and tremulous. It appeared probably more so, from the stillness of the atmosphere and the reverberation of the surrounding mountains. The houses were greatly shaken, and the furniture tossed from its place. The weather had been uncommonly variable, and changed from high gusts of wind, to a deep calm, a few days before the severest shocks of the earthquake. The air was moist and hazy, and the clouds seemed charged with electricity."

Encyclopaedia Perthensis, vol. 7th EA.

Two Shocks of an Earthquake, (similar to those which began at the same place some years ago) have been lately felt at and near Comrie in Perthshire one on the 17th of January, and the other on the 24th of February.

The motion of the Earth was from West to East and lasted about two seconds, but the subterraneous noise which accompanied, it continued much longer.

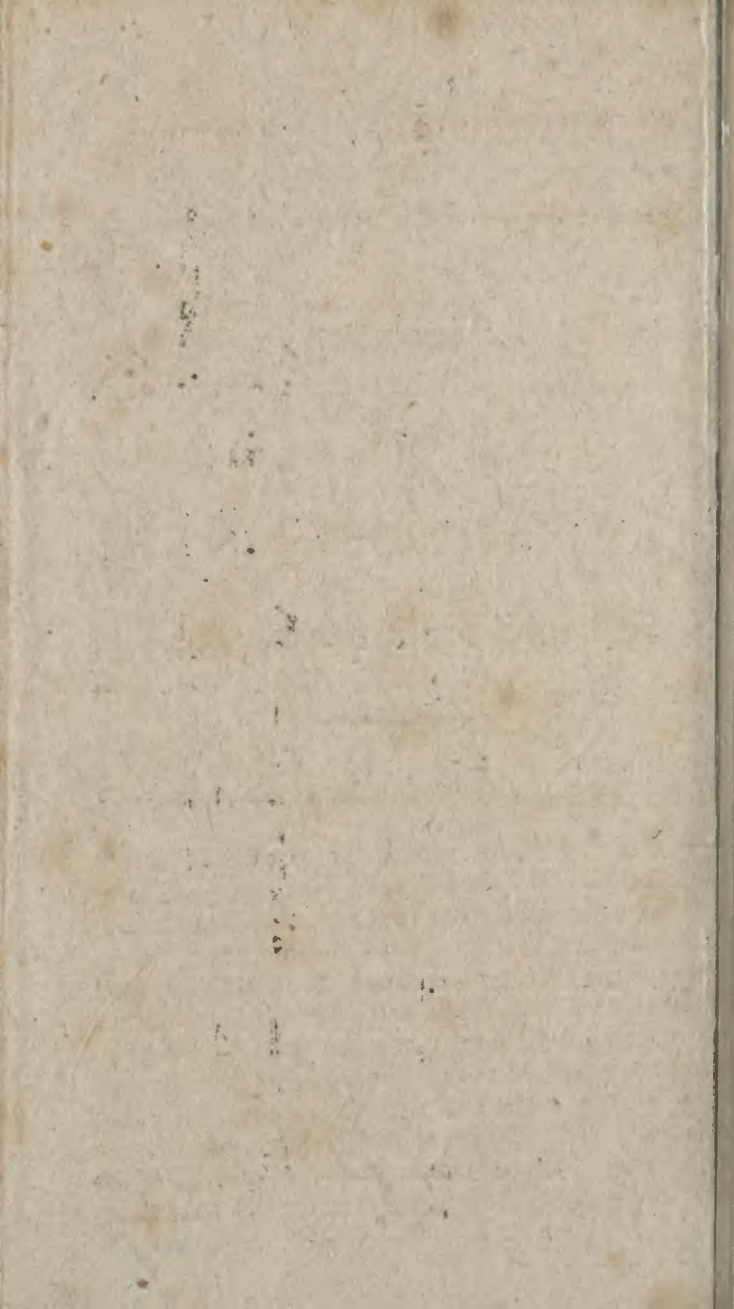
Scots Magazine for March, 1799.

F I N I S.

Awful Phenomena
of Nature

PART SECOND,

VOLCANOS.



AN ACCOUNT

OF TWO

GREAT AND DREADFUL

Volcanic Eruptions, &c.

Eruption of Mount Etna in Sicily, 1699.

MANY striking remains of the great eruption in 1669 are still to be seen, and will long continue as memorials of that dreadful event which overwhelmed Catania, and all the adjacent country. Tremendous earthquakes shook the island, and loud subterraneous bellowings were heard in the mountain. During some weeks, the sun ceased to appear, and the day seemed changed into night. Borelli, who was a witness to these terrible phenomena, says, that at length a rent, twelve miles in length, was opened in the mountain, in some places of which, when they threw down stones, they could not hear them

reach the bottom. Burning rocks, sixty palms in length, were thrown to the distance of a mile, and lesser stones were carried three miles. After the most violent struggles, and a shaking of the whole island, an immense torrent of lava gushed from the rent, and sprung up into the air to the height of sixty palms, whence it poured down the mountain and overwhelmed every object in its way in one promiscuous ruin.

This destructive torrent, which burst from the side of *Ætna* at a place called *Kicini*, rushed impetuously against the beautiful mountain of *Montpelieri*, and pierced into the ground to a considerable depth; then dividing and surrounding the mountain; it united again on the south side, and poured desolation upon the adjacent country. The progress of the torrent was at first at the rate of seven miles a day, but it afterwards took four days to travel sixteen; wherever it directed its course, the whole appearance of nature was changed, several hills were formed in places which were formerly valleys, and a large lake was so entirely filled up by the melted mass, as not to leave a vestige remaining. In its course it descended upon a vineyard, belonging to a convent of *Jesuits*, which was formed upon an ancient and probably a very thin layer of lava, with a number of caverns and crevices under it. The liquid mass entering into these excavations soon filled them up; and by degrees bore up the vineyard, which in a short time, to the great astonishment of the spectators, began to move away and was carried by the torrent to a considerable distance. In 1770 some remains of this vineyard were still to be seen, but the greater part of it was entirely destroyed.

In vain did the terrified inhabitants of *Catania* recur for protection to the miraculous veil, or ex-

fect defence from the lofty walls of their city. After destroying several convents, churches, and villages, this fiery current directed its course to Catania, where it poured impetuously over the ramparts, which are near sixty feet in height, and covered up five of its bastions, with the intervening curtains. After laying waste a great part of this beautiful city, and entirely destroying several valuable remains of antiquity, its further progress was stopped by the ocean, over whose banks it poured its destructive current. In its course from the rent in the mountain, till its arrival in the sea, it is said to have totally destroyed the property of near thirty thousand persons.

Eruption of Mount Vesuvius in Italy, 1734.

THE mountain had been remarkably quiet for seven months before the late eruption, nor did the usual smoke issue from its crater, but at times it emitted small clouds of smoke that floated in the air in the shape of little trees. It was remarked by the Father Antonio di Petrizzi, a capuchin friar (who printed an account of the late eruption) from his convent close to the unfortunate town of Torre del Greco, that for some days preceding this eruption, a thick vapour was seen to surround the mountain, about a quarter of a mile beneath its crater, and it was observed by him and others at the same time, that both the sun and the moon had often an unusual reddish cast,

The water of the great fountain at Torre del Greco began to decrease some days before the eruption, so that the wheels of a corn mill, worked by that water, moved very slowly; it was necessary in all the other wells of the town and its neighbourhood to lengthen the ropes daily, in order to reach

the water; and some of the wells became quite dry. Although most of the inhabitants were sensible of this phenomenon, not one of them seems to have suspected the true cause of it. Eight days also before the eruption, a man and two boys, being in a vineyard above Terre del Greco (and precisely on the spot where one of the new mouths opened whence the principal current of lava that destroyed the town issued) were much alarmed by a sudden puff of smoke which issued from the earth close to them, and was attended with a slight explosion.

Had this circumstance, with that of the subterraneous noises heard at Resina for two days before the eruption (with the additional one of the decrease of water in the wells) been communicated at the time, it would have required no great foresight to have been certain that an eruption of the volcano was near at hand, and that its force was directed particularly towards that part of the mountain.

On the 12th of June 1794, in the morning, there was a violent fall of rain, and soon after the inhabitants of Resina, situated directly over the ancient town of Herculaneum, were sensible of a rumbling subterraneous noise, which was not heard at Naples.

From the month of January to the month of May, the atmosphere had been generally calm, and there was continued dry weather. In the month of May there was a little rain, but the weather was unusually sultry. For some days preceding the eruption, the Duke della Torre, a learned and ingenious nobleman, who published two letters upon the subject of the eruption, observed by his electrometers, that the atmosphere was charged in excess with the electric fluid, and continued so for several days during the eruption.

About eleven o'clock on the night of the 12th

of June, the inhabitants of Naples were all sensible of a violent shock of an earthquake; the undulatory motion was evidently from east to west, and appeared to have lasted near half a minute. The sky, which had been quite clear, was soon after covered with black clouds. The inhabitants of the towns and villages, which are very numerous at the foot of Vesuvius, felt this earthquake still more sensibly, and say, that the shock at first was from the bottom upwards, after which followed the undulation from east to west. This earthquake extended all over the Campagna Felice; and the royal palace at Caserta, which is fifteen miles from Naples, and one of the most magnificent and solid buildings in Europe (the walls being eighteen feet thick) was shaken in such a manner as to cause great alarm, and all the chamber bells rang. It was likewise much felt at Beneventum, about thirty miles from Naples; and at Ariano in Puglia, which is at a much greater distance; both these towns; indeed, have been often afflicted with earthquakes.

On Sunday the 15th of June, soon after ten o'clock at night, another shock of an earthquake was felt at Naples, but did not appear to be quite so violent as that of the 12th, nor did it last so long; at the same moment a fountain of bright fire, attended with a very black smoke and a loud report, was seen to issue, and rise to a great height, from about the middle of the cone of Vesuvius; soon after another of the same kind broke out at some little distance lower down; then, as is supposed by the blowing up of a covered channel full of red hot lava, it had the appearance as if the lava had taken its course directly up the steep cone of the volcano. Fresh fountains succeeded one another hastily, and all in a direct line tending, for about a mile and a half down, towards the towns of

Refina and Torre del Greco. Sir William Hamilton could count fifteen of them, but believes there were others obscured by the smoke. It seems probable, that all these fountains of fire, from the being in such an exact line, proceeded from one and the same long fissure down the flanks of the mountain, and that the lava and other volcanic matter forced its way out of the widest parts of the crack, and formed there the little mountains and craters that will be described in their proper place. It is impossible that any description can give an idea of the blazing scene, or of the horrid noises that attended this great operation of nature. It was a mixture of the loudest thunder, with incessant reports, like those from a numerous heavy artillery, accompanied by a continued hollow murmur, like that of the roaring of the ocean during a violent storm; and, added to these was another blowing noise, like that of the ascending of a large flight of sky-rockets, or that which is produced by the action of the enormous bellows on the furnace of the Carron iron foundery in Scotland. The frequent falling of the huge stones and scorix, which were thrown up to an incredible height from some of the new mouths, one of which having been since measured by the Abbe Tata was ten feet high, and thirty-five in circumference, contributed undoubtedly to the concussion of the earth and air, which kept all the houses at Naples for several hours in constant tremor, every door and window shaking and rattling incessantly, and the bells ringing. This was an awful moment! The sky, from a bright full moon and starlight, began to be obscured; the moon had presently the appearance of being in an eclipse, and soon after was totally lost in obscurity. The murmur of the prayers and lamentations of numerous populace forming various processions

and parading in the streets, added to the horror. As the lava did not appear to have yet a sufficient vent, and it was now evident that the earthquakes already felt had been occasioned by the air and fiery matter confined within the bowels of the mountain, and probably at no small depth (considering the extent of those earthquakes) Sir William recommended so the company that was with him, who began to be much alarmed, rather to go and view the mountain at some greater distance, and in the open air, than to remain in the house, which was on the sea side, and in the part of Naples that is nearest and most exposed to Vesuvius. They accordingly proceeded to Posilipo, and viewed the conflagration, now become still more considerable, from the sea side under that mountain; but whether from the eruption having increased, or from the loud reports of the volcanic explosions being repeated by the mountain behind them, the noise was much louder, and more alarming than that they had heard in their first position, at least a mile nearer to Vesuvius. After some time, and which was about two o'clock in the morning of the 16th, having observed that the lavas ran in abundance, freely, and with great velocity, having made a considerable progress toward Resina, the town which it first threatened, and that the fiery vapours which had been confined had now free vent through many parts of a crack of more than a mile and a half in length, as was evident from the quantity of inflamed matter and black smoke, which continued to issue from the new mouths above mentioned, without any interruption, our author concluded that at Naples all danger from earthquakes, which had been his greatest apprehension, was totally removed, and he returned to his former station at St. Lucia at Naples.

All this time there was not the smallest appearance of fire or smoke from the crater on the summit of Vesuvius; but the black smoke and ashes issued continually from so many new mouths, or craters, formed an enormous and dense body of clouds over the whole mountain, and which began to give signs of being replete with the electric fluid, by exhibiting flashes of that sort of zig-zag lightning, which in the volcanic language of the country is called *scricilli*, and which is the constant attendant on most violent eruptions.

Sir William Hamilton proceeds to remark, that during thirty years that he had resided at Naples, and in which space of time he had been witness to many eruptions of Vesuvius, of one sort or other, he never saw the cloud of smoke replete with electric fire, except in the two great eruptions of 1767, that of 1779, and during this more formidable one. The electric fire, in the year 1779, that played constantly within the enormous black cloud over the crater of Vesuvius, and seldom quieted it, was exactly similar to that which is produced, on a very small scale, by the conductor of an electrical machine communicating with an insulated plate of glass, thinly spread over with metallic filings, &c. when the electric matter continues to play over it in zig-zag lines without quitting it. He was not sensible of any noise attending that operation in 1779; whereas the discharge of the electric matter from the volcanic clouds during this eruption, and particularly the second and third days, caused explosions like those of the loudest thunder, and indeed the storms raised evidently by the force and power of the volcano, resembled in every respect all other thunder-storms; the lightning falling and destroying every thing in its course. The house of the Marquis of Berio at St. Jorio, situated at the

foot of Vesuvius, during one of these volcanic storms was struck with lightning, which having shattered many doors and windows, and damaged the furniture, left for some time a strong smell of sulphur in the rooms it passed through. Out of these gigantic and volcanic clouds, besides the lightning, both during this eruption and that of 1779, the author adds, he had, with many others, seen balls of fire issue, and some of considerable magnitude, which bursting in the air, produced nearly the same effect as that from the air-balloons in fire-works, the electric fire that came out having the appearance of the serpents with which those fire-work balloons are often filled. The day on which Naples was in the greatest danger from the volcanic clouds, two small balls of fire, joined together by a small link like a chain-shot, fell close to his Casino at Posilipo; they separated, and one fell in the vineyard above the house, and the other in the sea, so close to it that he heard the splash in the water. The Abbe Tata, in his printed account of this eruption, mentions an enormous ball of this kind which flew out of the crater of Vesuvius while he was standing on the edge of it, and which burst in the air at some distance from the mountain, soon after which he heard a noise like the fall of stones, or of a heavy shower of hail. During the eruption of the 15th at night, few of the inhabitants of Naples, from the dread of earthquakes, ventured to go to their beds. The common people were either employed in devout processions in the streets, or were sleeping on the quays and open places; the nobility and gentry, having caused their horses to be taken from their carriages, slept in them in the squares and open places, or on the high roads just out of the town. For several days, while the volcanic storms of thunder and lightning lasted, the inhabitants at

the foot of the volcano, both on the sea side and the Somma side, were often sensible of a tremor in the earth, as well as of the concussions in the air, but at Naples only the earthquakes of the 12th and 15th of June were distinctly and universally felt. This fair city could not certainly have resisted, had not those earthquakes been fortunately of a short duration. Throughout this eruption, which continued in force about ten days, the fever of the mountain, as has been remarked in former eruptions, showed itself to be in some measure periodical and generally was most violent at the break of day at noon, and at midnight.

About four o'clock in the morning of the 16th the crater of Vesuvius began to shew signs of being open, by some black smoke issuing out of it; and at day-break another smoke, tinged with red, issuing from an opening near the crater, but on the other side of the mountain, and facing the town of Ottaviano, shewed that a new mouth had opened there from which a considerable stream of lava issued, and ran with great velocity through a wood which it burnt; and having run about three miles in a few hours it stopped before it had arrived at the vineyards and cultivated lands. The crater, and all the conical part of Vesuvius, was soon involved in clouds and darkness, and so it remained for several days; but above these clouds, although of a great height, fresh columns of smoke were seen from the crater, rising furiously still higher, until the whole mass remained in the usual form of a pine-tree; and in that gigantic mass of heavy clouds the ferilli, or volcanic lightning, was frequently visible, even in the day time. About five o'clock in the morning of the 16th, the lava which had first broken out from the several new mouths on the south side of the mountain, had reached the sea, and was

running into it, having overwhelmed, burnt, and destroyed the greatest part of Torredel Greco, the principal stream of lava having taken its course through the very center of the town. They observed from Naples, that when the lava was in the vineyards in its way to the town, there issued often, and in different parts of it, a bright pale flame, and very different from the deep red of the lava; this was occasioned by the burning of the trees that supported the vines. Soon after the beginning of this eruption, ashes fell thick at the foot of the mountain, all the way from Portici to the Torre del Greco; and what is remarkable, although there were not at that time any clouds in the air, except those of smoke from the mountain, the ashes were wet, and accompanied with large drops of water, which were to the taste very salt; the road, which is paved, was as wet as if there had been a heavy shower of rain. Those ashes were black and coarse, like the sand of the sea-shore, whereas those that fell there, and at Naples some days after, were of a light-grey colour, and as fine as Spanish snuff, or powder bark. They contained many saline particles; those ashes that lay on the ground, exposed to the burning sun, had a coat of the whitest powder on their surface, which to the taste was extremely salt and pungent. In the printed account of the eruption by Emanuel Scotti, doctor of physic and professor of philosophy in the university of Naples; he supposes (which appears to be highly probable) that the water which accompanied the fall of the ashes at the beginning of the eruption, was produced by the mixture of the inflammable and dephlogisticated air.

By the time that the lava had reached the sea, between five and six o'clock in the morning of the 5th, Vesuvius was so completely involved in

darkness, that the violent operation of nature that was going on there could no longer be discerned and so it remained for several days; but the dreadful noise, and the red tinge on the clouds over the top of the mountain, were evident signs of the activity of the fire underneath. The lava ran but slowly at Torre del Greco after it had reached the sea; and on the 17th of June in the morning, its course was stopped, excepting that at times a little rivulet of liquid fire issued from under the smoking scorie into the sea, and caused a hissing noise, and a white smoke; at other times, a quantity of large scorie were pushed off the surface of the body of the lava into the sea, discovering that it was red underneath that surface; and even to the latter end of August the center of the thickest part of the lava that covered the town retained its red heat. The breadth of the lava that ran into the sea, and formed a new promontory there, after having destroyed the greatest part of the town of Torre del Greco, having been exactly measured by the diameter della Torre, is of English feet 1204. Its height above the sea is twelve feet, and as many feet under water; so that its whole height is twenty-four feet; extends into the sea 626 feet. The sea water was boiling as in a cauldron, where it washed the foot of this new formed promontory: and although the author was at least a hundred yards from it, observing that the sea smoked near his boat; he put his hand into the water, which was literally scalded and by this time his boatmen observed that the pitch from the bottom of the boat was melting fast and floating on the surface of the sea, and that the boat began to leak; he therefore retired hastily from this spot, and landed at some distance from the hot lava. The town of Torre del Greco contains about 18,000 inhabitants; all of whom (except

boat 15; who from either age or infirmity could not be moved, and were overwhelmed by the lava in their houses) escaped either to Castel-a-mare, which was the ancient Stabiae, or to Naples; but the rapid progress of the lava was such, after it had altered its course from Resina; which town it first threatened, and had joined a fresh lava that issued from one of the new mouths in a vineyard, about a mile from the town, that it ran like a torrent over the town of Torre del Greco, allowing the unfortunate inhabitants scarcely time to save their lives; their goods and effects were totally abandoned, and indeed several of the inhabitants, whose houses had been surrounded with lava while they remained in them, escaped from them, and saved their lives the following day, by coming out of the tops of their houses, and walking over the scoriae on the surface of the redhot lava. Five or six old nuns were taken out of a convent in this manner, on the 16th of June, and carried over the hot lava; their stupidity was such, as not to have been the least alarmed; or sensible of their danger: one of upwards of ninety years of age was found actually warming herself at a point of redhot lava, which touched the window of her cell, and which she said was very comfortable; and though now apprized of their danger, they were still very unwilling to leave the convent, in which they had been shut up almost from their infancy, their ideas being as limited as the space they inhabited. Having been desired to pack up whatever they had that was most valuable, they all loaded themselves with biscuits and sweetmeats, and it was but by accident it was discovered that they had left a sum of money behind them, which was recovered for them.

The lava passed over the center and best part of the town; no part of the cathedral remained above

it, except the upper part of a square brick tower, in which were the bells; and it is a curious circumstance, that those bells, although they were neither cracked nor melted, were deprived of their tone as much as if they had been cracked. When the lava first entered the sea it threw up the water to a prodigious height; and particularly when two points of lava met and inclosed a pool of water, that water was thrown up with great violence, and a loud report: at this time, as well as the day after also, a great many boiled fish were seen floating on the surface of the sea.

The lava over the cathedral, and in other parts of the town, is said to be upwards of forty feet in thickness; the general height of the lava during its whole course was about twelve feet, and in some parts not less than a mile in breadth.

When Sir William Hamilton visited it on the 17th of June, the tops of the houses were just visible here and there in some parts, and the timbers within still burning caused a bright flame to issue out of the surface; in other parts, the sulphur and salts exhaled in a white smoke from the lava, forming a white or yellow crust on the scorice round the spots where it issued with the greatest force. He often heard little explosions, and saw that they blew up like little mines, fragments of the scoriae and ashes into the air; these he supposes to have been occasioned either by rarified air in confined cellars, or, perhaps, by small portions of gunpowder taking fire, as few in that country are without a gun and some little portion of gunpowder in their houses. As the church feasts there are usually attended with fireworks and crackers, a firework-maker of the town had a very great quantity of fireworks ready made for an approaching feast, and some gunpowder, all of which had been shut up in

his house by the lava, a part of which, had even entered one of the rooms; yet he actually saved all his fireworks and gunpowder some days after, by carrying them safely over the scoriae of the lava, while it was red hot underneath. The heat in the streets of the town, at this time, was so great as to rise the thermometer to very near one hundred degrees, and close to the hot lava it rose much higher. Sir William remarked in his way home, that there was a much greater quantity of the petroleum floating on the surface of the sea, and diffusing a very strong and offensive smell, than was usual; for at all times in calms, patches of this bituminous oil are to be seen floating on the surface of the sea between Portici and Naples, and particularly opposite a village called Pietra Bianca. The minute ashes continued falling at Naples; and the mountain, totally obscured by them, continued to alarm the inhabitants with repeated loud explosions.

On Wednesday June 18, the wind having for a short space of time cleared away the thick cloud from the top of Vesuvius, it was now discovered that a great part of its crater, particularly on the west side opposite Naples, had fallen in, which it probably did about four o'clock in the morning of that day, as a violent shock of an earthquake was felt at that moment at Resina, and other parts situated at the foot of the volcano. The clouds of smoke, mixed with the ashes, were of such a density as to appear to have the greatest difficulty in forcing their passage out of the now widely extended mouth of Vesuvius, which, since the top fell in, is described as not much short of two miles in circumference. One cloud heaped on another, and succeeding one another incessantly; formed in a few hours such a gigantic and elevated column of the darkest hue over the mountain, as seemed to threa-

ten Naples with immediate destruction, having at one time been bent over the city, and appearing to be much too massive and ponderous to remain long suspended in the air; it was, besides, replete with the ferilli, or volcanic lightning, which was stronger than common lightning.

Vesuvius was at this time completely covered, were all the old black lavas, with a thick coat of those fine light-grey ashes already fallen, which gave it a cold and horrid appearance; and in comparison of the abovementioned enormous mass of clouds which certainly, however it may contradict our idea of the extension of our atmosphere, rose many miles above the mountain, it appeared like a molehill although the perpendicular height of Vesuvius from the level of the sea, is more than three thousand six hundred feet. The abbe Braccini, as appears in his printed account of the eruption of Mount Vesuvius in 1631, measured with a quadrant the elevation of a mass of clouds of the same nature which was formed over Vesuvius during that great eruption, and found it to exceed thirty miles in height. Dr. Scotti, in his printed account of this eruption, says, that the height of this threatening cloud of smoke and ashes, measured from Naples, was found to be of an elevation of thirty degrees.

The storms of thunder and lightning, attended at times with heavy falls of rain and ashes, causing the most destructive torrents of water and glutinous mud, mixed with huge stones, and trees torn up by the roots, continued more or less to afflict the inhabitants on both sides of the volcano until the 7th of July, when the last torrent destroyed many hundred acres of cultivated land, between the towns of Torre del Greco and Torre dell' Annunziata. Some of these torrents, both on the sea side and the Som-

ma side of the mountain, came down with a horrid rushing noise; and some of them, after having forced their way through the narrow gullies of the mountain, rose to the height of more than twenty feet, and were near half a mile in extent. The mud, of which the torrents were composed, being a kind of natural mortar, completely cased up and ruined some thousand acres of rich vineyards; for it soon becomes so hard, that nothing less than a pickaxe can break it up.

The laudable curiosity of our author induced him to go upon Mount Vesuvius, as soon as it was consistent with any degree of prudence, which was not until the 30th of June, and even then it was attended with some risk. The crater of Vesuvius, except at short intervals, had been continually obscured by the volcanic clouds from the 10th, and was so on that day, with frequent flashes of lightning playing in those clouds, and attended as usual with a noise like thunder; and the fine ashes were still falling on Vesuvius, but still more on the mountain of Somma. Sir William went up the usual way by Refina, and observed, in his way through that village, that many of the stones of the pavement had been loosened, and were deranged by the earthquakes, particularly by that of the 18th, which attended the falling in of the crater of the volcano, and which had been so violent as to throw many people down, and obliged all the inhabitants of Refina to quit their houses hastily, to which they did not dare return for two days. The leaves of all the vines were burnt by the ashes that had fallen on them; and many of the vines themselves were buried under the ashes, and great branches of the trees that supported them had been torn off by their weight. In short, nothing but ruin and desolation was to be seen. The ashes at

the foot of the mountain were about ten or twelve inches thick on the surface of the earth, but in proportion as he ascended, their thickness increased to several feet, no less than nine or ten in some parts; so that the surface of the old rugged lava that before was almost impracticable, was now become a perfect plain, over which he walked with the greatest ease. The ashes were of a light grey colour, and exceedingly fine, so that by the foot steps being marked on them as on snow, he learnt that three small parties had been up before him. He saw likewise the track of a fox, which appeared to have been quite bewildered, to judge from the many turns he had made. Even the traces of lizards and other little animals, and of insects, were visible on these fine ashes. Sir William and his companion ascended to the spot whence the lava of the 15th first issued, and followed the course of it, which was still very hot (although covered with such a thick coat of ashes) quite down to the sea at Torre de Greco, which is more than five miles. It was not possible to get up to the great crater of Vesuvius, nor had any one yet attempted it. The horrible chasms that existed from the spot where the late eruption first took place, in a straight line for near two miles towards the sea, cannot be imagined. They formed vallies more than two hundred feet deep, and from half a mile to a mile wide; and where the fountains of fiery matter existed during the eruption, were little mountains with deep craters. Ten thousand men, in as many years, could not make such an alteration on the face of Vesuvius. Except the exhalations of sulphurous and vitriolic vapours, which broke out from different spots of the line abovementioned, and tinged the surface of the ashes and scoriae in those parts with either a deep or pale-yellow, with a reddish

chre colour, or a bright white; and in some parts with a deep green and azure blue (so that the whole together had the effect of an iris) all had the appearance of a sandy desert. Our adventurers then went on the top of seven of the most considerable of the new formed mountains, and looked into their craters, which on some of them appeared to be little short of half a mile in circumference; and although the exterior perpendicular height of any of them did not exceed two hundred feet, the depth of their inverted cone within was three times as great. It would not have been possible to have breathed on these new mountains near their craters, if they had not taken the precaution of tying a double handkerchief over their mouths and nostrils; and even with that precaution they could not resist long, the fumes of the vitriolic acid were so exceedingly penetrating, and of such a suffocating quality. They found in one a double crater, like two funnels joined together; and in all there was some little smoke and depositions of salts and sulphurs, of the various colours abovementioned, just as is commonly seen adhering to the inner walls of the principal crater of Vesuvius.

Two or three days after they had been there, one of the new mouths, into which they had looked, suddenly made a great explosion of stones, smoke, and ashes, which would certainly have proved fatal to any one who might unfortunately have been there at the time of the explosion. We read of a similar accident having proved fatal to more than twenty people who had the curiosity to look into the crater of the Monte Nuovo, near Puzzuoli, a few days after its formation, in the year 1538. The 15th of August, Sir William saw a sudden explosion of smoke and ashes thrown to an extreme height out of the great crater of Vesuvius, that must have

destroyed any one within half a mile of it: and on the 19th of July a party not only had visited the crater, but had descended 170 feet within it. While they were on the mountain, two whirlwinds, exactly like those that form water-spouts at sea, made their appearance; and one of them, which was very near, made a strange rushing noise, and having taken up a great quantity of the fine ashes, formed them into an elevated spiral column, which, with whirling motion and great rapidity, was carried towards the mountain of Somma, where it broke and was dispersed. One of our author's servants employed in collecting of sulphur, or sal ammoniac, which crystalizes near the fumaroli, as they are called (and which are the spots whence the hot vapour issues out of the fresh lava) found to his great surprize, an exceeding cold wind issue from a fissure very near the hot fumaroli upon his leg. In a vineyard not in the same line with the new-formed mountains just described, but in a right line from them, at the distance of little more than a mile from Torre del Greco, they found three or four more of these new-formed mountains with craters out of which the lava flowed, and by uniting with the streams that came from the higher mouths, and adding to their heat and fluidity, enabled the whole current to make so rapid a progress over the unfortunate town, as scarcely to allow its inhabitants sufficient time to escape with their lives. The rich vineyards belonging to the Torre del Greco, and which produced the wine called *Lacrima Christi*, that were buried and totally destroyed by this lava, consisted of more than three thousand acres; but the destruction of the vineyards by the torrents of mud and water, at the foot of the mountain of Somma, was much more extensive.

In that part of the country, the first signs of a

rent that our author met with, was near the village of the Madonna dell' Arco, and he passed several rivers between that and the town of Ottaviano; one near Trochia, and two near the town of Somma, were the most considerable, and not less than a quarter of a mile in breadth; and, according to the testimony of eye witnesses; when they poured down from the mountain of Somma, they were from twenty to thirty feet high; the matter of these torrents was a liquid glutinous mud, composed of scoriae, ashes, stones (some of an enormous size) mixed with trees that had been torn up by the roots. Such torrents, as it may well be imagined, were irresistible, and carried off every thing before them; houses, walls, trees, and not less than four thousand sheep and other cattle. At Somma, a team of eight oxen, which were drawing a large timber tree were at once carried off, and never were heard more.

The appearance of these torrents was like that of all other torrents in mountainous countries, except that what had been mud was become a perfect cement, on which nothing less than a pickaxe could make any impression. The vineyards and cultivated lands were here much more ruined; and the limbs of the trees much more torn by the weight of the ashes, than those which have been already described on the sea side of the volcano.

The abbe Tata, in his printed account of this eruption, has given a good idea of the abundance, the great weight, and glutinous quality of these ashes, when he says, that having taken a branch from a fig-tree still standing near the town of Somma, on which were only six leaves, and two little unripe figs, and having weighed it with the ashes attached to it, found it to be thirty-one ounces; when having

washed off the volcanic matter, it scarcely weighed three.

In the town of Somma, our author found four churches and about seventy houses without roofs, all full of ashes. The great damage on that side of the mountain, by the fall of the ashes and the torrent happened on the 18th, 19th, and 20th of June, and on the 12th of July. The 19th, the ashes fell so thick at Somma, that unless a person kept in motion, he was soon fixed to the ground by them. This fall of ashes was accompanied also with loud reports, and frequent flashes of the volcanic lightning, so that, surrounded by so many horrors, it was impossible for the inhabitants to remain in the town, and they all fled; the darkness was such, although it was mid-day, that even with the help of torches it was scarcely possible to keep in the high road. On the 16th of July, signor Giuseppe Sacco went up to the crater, and, according to his account, which has been printed at Naples, the crater is of an irregular oval form, and as he supposes (not having been able to measure it) of about a mile and a half in circumference; the inside, as usual, in the shape of an inverted cone, the inner walls of which on the eastern side are perpendicular; but on the western side of the crater, which is much lower, the descent was practicable, and Sacco with some of his companions actually went down one hundred and seventy-six palms from which spot, having lowered a cord with a stone tied to it, they found the whole depth of the crater to be about five hundred palms. But such observations on the crater of Vesuvius are of little consequence, as both its form and apparent depth are subject to great alterations from day to day.

Greg. Econ. of Nature,

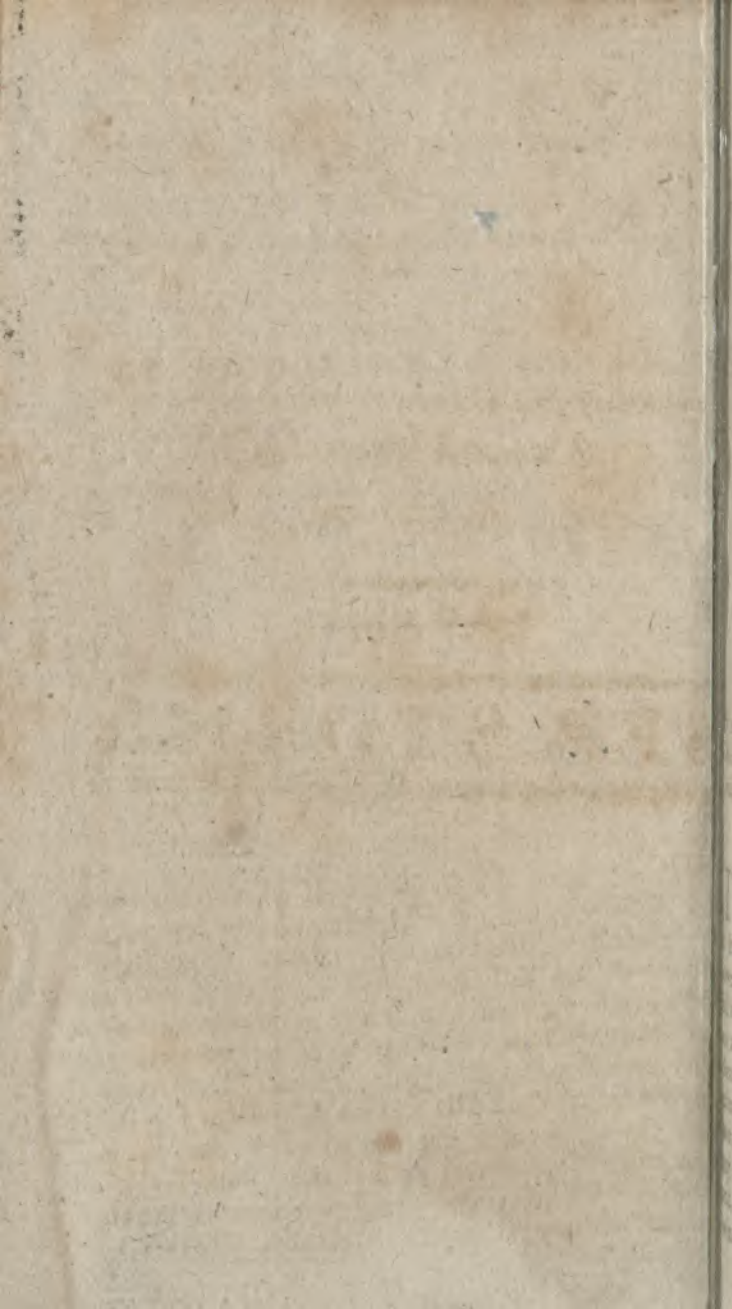
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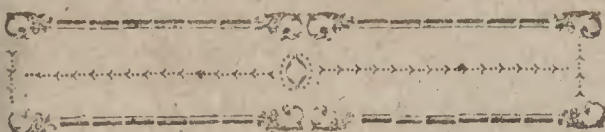
335.—352

Awful Phenomena
of Nature,

PART THIRD,

SEA STORMS.





MELANCHOLY CONSEQUENCES

OF TWO

Sea Storms, &c.

An account of the Shipwreck of a Portuguese Snow, on her passage from Goa to Madras—in the year 1782, related by one of the Sufferers.

IT was now the eighteenth of May when we sailed from Goa. The hemisphere had been some days overcast with clouds: some light showers of rain had fallen; and it certainly did not tend to raise my spirits, and free me from my ominous apprehensions, to hear that those circumstances indicated an approaching gale of wind. I observed, moreover, that the vessel was much too deep in the water, being greatly overloaded—that she was in many respects defective, and, as the seamen say, ill-found, and in short very unfit to encounter a gale of wind of any violence. I scorned, however, to

yield to these united impressions, and determine to proceed.

“ On the nineteenth, the sky was obscured by immense fleeces of clouds, surcharged with inflammable matter; and in the evening, the rain in torrents, the firmament darkened apace, sudden night came on, and the horrors of extreme darkness were rendered still more horrible by the peals of thunder which rent the air, and the frequent flashes of lightning, which served only to shew the horror of our situation, and leave us in increased darkness: mean time the wind became more violent blowing on the shore; and a heavy sea, roused by its force, united with it to make our state more formidable.

“ By day light on the morning of the twentieth the gale had increased to a furious tempest; and the sea, keeping pace with it, ran mountain high; as it kept invariably to the same point, the captain and officers became seriously alarmed, and almost persuaded that the south-west monsoon had set in, which, if it were so, would render it absolutely impossible for us to weather the coast. All day, however, we kept as close as the violence of the weather would allow us to the wind; but the sea canted her head so to leeward, that she ran more lee than head-way; and the rigging was strained with the work, that we had little hope of keeping off the shore, unless the wind changed, which there was not now the smallest probability. During the night there was no intermission of storm: many of the sails blew into ribbons; several of the rigging was carried away, and such exertions were made, that, before morning, every thing that could possibly be struck was down upon the deck.

“ About seven o'clock on the morning of

venty-first, I was alarmed by an unusual noise upon the deck, and running up, perceived that every remaining sail in the vessel, the fore sail one excepted, was totally carried away. The sight was horrible, and the whole vessel presented a spectacle as dreadful to the feelings as mortifying to human pride. Fear had produced, not only all the effluents of despondency, but all the mischievous effects of insanity. In one place stood the captain, crying, stamping, and tearing his hair in handfuls from his head—here, some of the crew were cast upon their knees, clasping their hands, and praying, with all the extravagance of horror painted in their faces—there, others were flogging their images with all their might, calling upon them to allay the storm. One of our passengers, who was purser of an English East Indiaman, had got hold of a cask of rum, and with an air of distraction and deep despair imprinted in his face, was stalking about in his shirt. I perceived him to be on the point of serving it about, in large tumblers, to the few undismayed people; and well convinced, that, so far from alleviating, it would sharpen the horrors of their mind; I went forward, and with much difficulty prevented him.

“ Having accomplished this point, I applied myself to the captain, and endeavoured to bring him back (if possible) to his recollection, and to a sense of what he owed to his duty as a commander, and to his dignity as a man: I exhorted him to encourage the sailors by his example; and strove to raise his spirits, by saying that the storm did not appear to me by any means so terrible as some I had before experienced.

“ While I was thus employed, we shipped a sea on the starboard side, which I really thought would have sent us down. The vessel seemed to sink be-

neath its weight, shivered, and remained motionless—it was a moment of critical suspense: fear made me think I felt her gradually descending—I gave myself up as gone, and summoned my fortitude to bear approaching death with the coming manhood.

“Just at this crisis, the water, which rushed with incredible force though all parts of the vessel brought out floating, and nearly suffocated, another English passenger, who was endeavouring to take a little repose in a small cabin boarded off from the deck: he was a very stout young man, and full of true spirit. Finding that the vessel was not, as he had thought, going immediately down, he joined me in exhorting the captain to his duty: we persuaded him to throw the guns overboard, as well as a number of trunks and packages with which the vessel was much encumbered; and with some little exertion, we got the pumps set a going.”

The name of the English passenger just mentioned was Hall. He was a young man of a most amiable disposition, and with it possessed all that martial spirit that gives presence of mind in exigencies of danger. He and Capt. Campbell having, with great difficulty, got some hands to stick to the pumps, stood at the wheel, at once to assist the men, and prevent them from quitting it: and though hopeless, determined that no effort practicable on their parts should be wanting to the preservation of the vessel. The water, however, galed upon the pumps, notwithstanding every effort, and it evidently appeared that they could not keep her long above water.

At ten o'clock the wind seemed to increase, and amounted to a downright hurricane: the sky was so entirely obscured with black clouds, and the rain fell so thick, that objects were not discernable.

rom the wheel to the ship's head. Soon the pumps were choaked, and could no longer be worked: then dismay seized on all—nothing but unutterable despair, silent anguish, and horror, wrought up to frenzy, was to be seen; not a single soul was capable of an effort to be useful—all seemed more desirous to extinguish their calamities by embracing death, than willing, by a painful exertion, to avoid it.

At about eleven o'clock they could plainly distinguish a dreadful roaring noise, resembling that of waves rolling against rocks; but the darkness of the day, and the accompanying rains, prevented them from seeing any distance; and if it were a rock, they might be actually dashed to pieces on it before they could perceive it. At twelve o'clock, however, the weather cleared up a little, and both the wind and the sea seemed to have abated: the very expansion of the prospect round the ship was exhilarating; and as the weather grew better, and the sea less furious, the senses of the people returned, and the general stupefaction began to decrease.

The weather continuing to clear up, they in some time discovered breakers and large rocks without side of them: so that it appeared they must have passed quite close to them, and were now fairly hemmed in between them and the land.

“In this very critical juncture,” says our traveller, “the captain, entirely contrary to my opinion, adopted the dangerous resolution of letting go an anchor, to bring her up with her head to the sea: but, though no seaman, my common sense told me that she could never ride it out, but must directly go down. The event nearly justified my judgment; for she had scarcely been at anchor before an enormous sea rolling over her, overwhelm-

ed and filled her with water, and every one on board concluded that she was certainly sinking. On the instant, a Lascar, with a presence of mind worthy an old English mariner, took an axe, ran forward and cut the cable."

On finding herself free, the vessel again floated and made an effort to right herself; but she was most completely water-logged, and heeled to leeward so much, that the gunnel lay under water. They then endeavoured to steer as fast as they could for the land, which they knew could not be at a great distance, though they were unable to discover it through the hazy weather: the fore-sail was loosened; by great efforts in bailing, she righted a little, her gunnel was got above water, and she scudded as well as they could before the wind which still blew hard on shore; and about two o'clock the land appeared at a small distance ahead.

The love of life countervails all other considerations in the mind of man. The uncertainty they were under with regard to the shore before them, which they had reason to believe was part of Hyde Ali's dominions, where they should meet with the most rigorous treatment, if not ultimate death, was forgotten in the joyful hope of saving life, and she scudded towards the shore in all the exulting transports of a people just snatched from the jaws of death.

This gleam of happiness, however, continued not long: a tremendous sea rolling after them broke over their stern, tore every thing before it stove in the steerage, carried away the rudder, shattered the wheel to pieces, and tore up the very ring-bolts of the deck—conveyed the men who stood at the wheel forward, and swept them overboard. Captain Campbell was standing, at the time, near

the wheel, and fortunately had hold of the taffarel, which enabled him to resist in part the weight of the wave. He was, however, swept off his feet, and dashed against the main-mast. The jerk from the taffarel, which he held very tenaciously, seemed as if it would have dislocated his arms: it broke, however the impetus of his motion, and in all probability saved him from being dashed to pieces against the mast.

“ I floundered about,” says he, “ in the water at the foot of the mast, till at length I got on my feet, and seized a rope, which I held in a state of great embarrassment, dubious what I should do to extricate myself. At this instant I perceived that Mr. Hall had got upon the capstern, and was waving his hand to me to follow his example: this I wished to do, though it was an enterprise of some risk and difficulty; for, if I lost the hold I had, a single motion of the vessel, or a fall wave, would certainly carry me overboard. I made a bold push, however, and fortunately accomplished it. Having attained this station, I could the better survey the wreck, and saw that the water was nearly breast-high on the quarter deck (for the vessel was deep-waisted); and I perceived the unfortunate English surfer standing where the water was most shallow, as if watching with patient expectation its rising, and awaiting death: I called to him to come to us, but he shook his head in despair, and laid, in a lamentable tone, “ it is all over with us! God have mercy upon us!”—then seated himself with seeming composure on a chair which happened to be rolling about in the wreck of the deck, and in a few minutes afterwards was washed into the sea along with it; where he was speedily released from a state ten thousand times worse than death.

“ During this universal wreck of things, the hor-

ror I was in could not prevent me from observing a very curious circumstance, which at any other time would have excited laughter, though now produced no other emotion than surprize. We happened to be in part laden with mangoes, of which the island of Goa is known to produce the finest in the world, some of them lay in baskets on the poop, a little black boy, in the moment of greatest danger, had got seated by them, devouring them voraciously, and crying all the time most bitterly at the horrors of his situation!

“ The vessel now got completely water-logged, and Mr. Hall and I were employed in forming conjectural calculations how many minutes she could keep above water, and consoling one another on the unfortunate circumstances under which we met lamenting that fate had thus brought us acquainted only to make us witnesses of each other’s misfortune and then to see one another no more.

“ As the larboard side of the vessel was gradually going down, the deck, and of course the capster became too nearly perpendicular for us to continue on it: we therefore foresaw the necessity of quitting it, and got upon the starboard side, holding fast to the gunnel, and allowing our bodies and legs to yield to the sea as it broke over us. Thus we continued for some time: at length the severity of the labour so entirely exhausted our strength and spirits that our best hope seemed to be a speedy conclusion to our painful death; and we began to have serious intentions of letting go our hold, and yielding ourselves up at once to the fury of the waves.

“ The vessel, which all this time drifted with the sea and wind, gradually approximated the shore and at length struck the ground, which for an instant revived our almost departed hopes; but we soon found that it did not, in the smallest degree

better our situation. Again I began to yield to utter despair—again I thought of letting go my hold, and sinking at once: it is impossible, thought I, even to escape—why, then, prolong, for a few minutes, a painful existence that must at last be given up? Yet, yet, the all-subduing love of life suggested, that many things apparently impossible had come to pass; and I said to myself, If life is to be lost, why not lose it in a glorious struggle? Should I survive it by accident, life will be rendered doubly sweet to me, and I still more worthy of it by persevering fortitude.

“ While I was employed in this train of reflection, I perceived some of the people collecting together, talking, and holding a consultation: it immediately occurred to me, that they were devising some plan for escaping from the wreck, and getting on shore: and, so natural is it for man to cling to his fellow-creature for support in difficult or dangerous exigencies, that I proposed to Mr. Hall to join them, and take a share in the execution of the plan—observing to him at the same time, that I was determined at all events to quit the vessel, and trust to the protection and guidance of a superintending Providence for the rest.

“ As prodigality of life is, in some cases, the excess of virtue and courage—to there are others in which it is vice, meanness and cowardice. True courage is, according to the circumstances under which it is to operate, as rigidly tenacious and vigilant of life in one case, as it is indifferent and regardless in another; and I think it is a very strange contradiction in the human heart (although it often happens), that a man who has the most unbounded courage, seeking death even in the canon's mouth, shall yet want the necessary resolution to make exertions to save his life in cases of ordinary

danger. The unfortunate English purser could not collect courage sufficient to make an effort to save himself; and yet I think it probable that he would have faced a battery of artillery, or exposed himself to a pistol shot, if occasion required, as soon as any other man. Thus it appears at first view: but may not this seeming incongruity be explained by saying, that personal courage and fortitude are different qualities of the mind and body, and depend upon the exercise of entirely different functions?

“Be that as it may, I argued with myself, in the height of my calamitous situation, upon the subject of fortitude and dejection, courage and cowardice, and, notwithstanding the serious aspect of affairs, found myself listening to the suggestions of pride: what a paltry thing to yield, while strength is left to struggle! Vanity herself had her hint, and whispered, “Should I escape by an effort of my own? what a glorious theme of exultation!” There were, I confess, transitory images in my mind, which, co-operating with the natural attachment to self preservation, made me persevere, and resolve to do so, while one vestige of hope was left for the mind to dwell on.

“Observing as I said before, the people consulting together, and resolving to join them, I made an effort to get to the lee throats, where they were standing, or rather clinging; but before I could accomplish it, I lost my hold, fell down the hatchway (the gratings having been carried away with the long boat), and was for some minutes entangled there among a heap of packages, which the violent fluctuations of the water had collected on the lee side. As the vessel moved with the sea, and the water flowed in, the packages and I were rolled together—sometimes one, sometimes another uppermost; so that I began to be apprehensive I

should not be able to extricate myself: by the merest accident, however, I grasped something that lay in my way, made a vigorous spring, and gained the lee shrouds. Mr. Hall who followed me, in seizing the shrouds, was driven against me with such violence, that I could scarcely retain my hold of the rigging.

“Compelled by the perilous situation in which I stood, I called out to him for God’s sake to keep off, for that I was rendered quite breathless and worn out: he generously endeavoured to make way for me, and, in so doing, unfortunately lost his hold, and went down under the ship’s side. Never, never shall I forget my sensations, at this melancholy incident—I would have given millions of worlds that could have recalled the words which made him move; my mind was wound up to the last pitch of anguish: I may truly say, that this was the most bitter of all the bitter moments of my life, compared with which the other circumstances of the shipwreck seemed lessened—for I had insensibly acquired an unusual esteem and warm attachment for him, and was doubtful whether, after being even the innocent occasion of his falling, I ought to take further pains to preserve my own life. All those sensations were passing with the rapidity of lightning through my thoughts, when, as much to my astonishment as to my joy, I saw him borne by a returning wave, and thrown among the very packages from which I had but just before, with such labour and difficulty, extricated myself. In the end he proved equally fortunate, but, after a much longer and harder struggle, and after sustaining much more injury.

“I once more changed my station, and made my way to the poop, where I found myself rather more sheltered—I earnestly wished Mr. Hall to be

with me, whatever might be my ultimate fate—
 and beckoned him to come near me; but he on-
 ly answered by shaking his head, in a feeble, despon-
 ing manner—staring at the same time wildly about
 him: even his spirit was subdued; and despair,
 perceived, had begun to take possession of his mind.

“ Being a little more at ease in my new situa-
 tion than I had been before, I had more time to delibe-
 rate, and more power to judge. I recollected, that
 according to the course of time, the day was
 gone and the night quickly approaching; I reflect-
 ed, that for any enterprize whatever day was much
 preferable to night; and above all I considered, that
 the vessel could not hold long together—therefore
 I thought, that the best mode I could adopt would
 be, to take to the water with the first buoyant thing
 I could see; and, as the wind and water both seemed
 to run to the shore, to take my chance in that way
 of reaching it. In pursuance of this resolution,
 I tore off my shirt, having before that thrown off all
 other parts of my dress—I looked at my sleeve but-
 ton, in which was set the hair of my departed chil-
 dren—and, by an involuntary act of the imagin-
 ation, asked myself the question, “ Shall I be happy
 enough to meet them where I am now about
 to go?—Shall those dear last remains, too, become
 prey to the devouring deep?”—In that instant, re-
 son, suspended by the horrors of the scene, gave
 way to instinct, and I rolled my shirt up, and ve-
 carelessly thrust it into a hole between decks, with
 the wild hopes that the sleeve-buttons might yet
 escape untouched. Watching my opportunity,
 I saw a log of wood floating near the vessel, and
 waving my hand to Mr. Hall as a last adieu, jump-
 ed after it. Here, again, I was doomed to aggra-
 vated hardships—I had scarcely touched the log
 when a great sea snatched it from my hold: still

it came near me, I grasped at it ineffectually, till at last it was completely carried away, but not before it had cut and battered and bruised me in several places, and in a manner that at any other time I should have thought dreadful.

“ Death seemed inevitable; and all that occurred to me now to do, was to accelerate it, and get out of its pangs as speedily as possible; for, though I knew how to swim; the tremendous surf rendered swimming useless, and all hope from it would have been ridiculous. I therefore began to swallow as much water as possible; yet, still rising by the buoyant principle of the waves to the surface, my former thoughts began to recur; and whether it was that, or natural instinct, which survived the temporary impressions of despair, I know not; but I endeavoured to swim, which I had not done long, when I again discovered the log of wood I had lost floating near me, and with some difficulty caught it: hardly had it been an instant in my hands, when, by the same unlucky means I lost it again. I had often heard it said in Scotland, that if a man will throw himself flat on his back in the water, lie quite straight and stiff, and suffer himself to sink till the water gets into his ears, he will continue to float so for ever: this occurred to me now; and I determined to try the experiment; so I threw myself on my back in the manner I have described, and left myself to the disposal of Providence; nor was it long before I found the truth of the saying—for I floated with hardly an effort, and began for the first time to conceive something like hopes of preservation,

“ After lying in this manner, committed to the discretion of the tides, I soon saw the vessel—saw that it was at a considerable distance behind me. Liveliest hope began to play about my heart, and joy fluttered with a thousand gay fancies in my mind; I began to form the favourable conclusion,

that the tide was carrying me rapidly to land from the vessel, and that I should soon once more tread *terra firma*.

“ This expectation was a cordial that revived my exhausted spirits: I took courage, and left myself still to the same all-directing Power that had hitherto preserved me, scarcely doubting that I should soon reach the land. Nor was I mistaken; for, in a short time more, without effort or exertion, and without once turning from off my back, I found myself strike against the sandy beach. Overjoyed to the highest pitch of transport at my providential deliverance, I made a convulsive spring, and ran up a little distance on the shore; but was so weak and worn down by fatigue, and so unable to clear my stomach of the salt water with which it was loaded, that I suddenly grew deadly sick, and apprehended that I had only exchanged one death for another; and in a minute or two fainted away.”

*Campbell's overland Journey to
India, Page 159—176.*

*Narrative of the Loss of the Halfewell East Indiaman,
on the coast of Dorsetshire, January 1786.*

THE Halfewell East-Indiaman, of 758 tons burthen, then, commanded by Richard Pierce Esq; sailed through the Downs on Sunday the 1st of January, 1786, and the next morning being a breath of Dunnoze, it fell calm.

Monday the 2d of January. at three in the afternoon, a breeze sprung up from the South, when they ran in shore to land the pilot, but very thick weather coming on in the evening, and the wind baffling, at nine in the evening they were obliged to anchor in eighteen fathom water, furl'd their topsails, but could not furl their courses, the snow falling thick, and freezing as it fell.

Tuesday the 3d, at four in the morning, a strong gale came on from East-Nore-East, and the ship driving, they were obliged to cut their cables, and run off to sea. At noon, they spoke with a brig bound to Dublin, and having put their pilot on board her, bore down Channel immediately. At eight in the evening, the wind freshening and coming to the Southward, they reefed such sails as were judged necessary. At ten at night it blew a violent gale of wind at South, and they were obliged to carry a press of sail to keep the ship off shore, in doing which the hawse plugs, which according to a new improvement were put inside, were washed in, and the hawse bags washed away, in consequence of which they shipped a large quantity of water on the gun deck.

On sounding the well, and finding the ship had sprung a leak, and had five feet water in her hold, they clued the main top sail up, hauled up the main-sail, and immediately endeavoured to furl both, but could not effect it—All the pumps were set to work on discovering the leak.

Wednesday the 4th, at two in the morning, they endeavoured to wear the ship, but without success, and judging it necessary to cut away the mizen-mast it was immediately done, and a second attempt made to wear the ship, which succeeded no better than the former; and the ship having now seven feet water in her hold, and gaining fast on the pumps, it was thought expedient for the preservation of the ship, to cut away the mainmast, the ship appearing to be in immediate danger of foundering.

At ten in the morning the wind abated considerably, and the ship labouring extremely, rolled the fore top-mast over on the larboard side, in the fall, the wreck went through the fore-sail, and tore it to

pieces. At eleven in the forenoon, the wind came to the West-ward, and the weather clearing up, the Berry-head was distinguishable bearing North and by East, distant four or five leagues; they immediately bent another fore-sail, erected a jury main-mast, and set a top-gallant-sail for a main-sail, under which sail they bore up for Portsmouth and employed the remainder of the day in getting up a jury mizen-mast.

About two in the morning on Friday the 6th the ship still driving, and approaching very fast to the shore, Mr. Henry Meriton, went into the cuddy, where the Captain then was, and a conversation took place, Captain Pierce expressing extreme anxiety for the preservation of his beloved daughters, and earnestly asking the officer if he could devise any means of saving them, and on his answering with great concern that he feared it would be impossible, but that their only chance would be to wait for the morning, the Captain lifted up his hands in silent and distressful ejaculation.

At this dreadful moment the ship struck with such violence as to dash the heads of those who were standing in the cuddy, against the deck above them, and the fatal blow was accompanied by a shriek of horror, which burst at one instant from every quarter of the ship.

Mr. Meriton, the officer, whom we have already mentioned, at this crisis of horror, offered to the depending crew, the best advice which could possibly be given to them; he recommended their coming all to that side of the ship which lay lowest of the rocks, and singly to take the opportunities which might then offer of escaping to the shore. And having thus provided to the utmost of his power for their safety, he returned to the round-house where by this time all the passengers, and most of

the officers were assembled, the latter employed in offering consolation to the unfortunate ladies, and with unparalleled magnanimity, suffering their compassion for the fair and amiable companions of their misfortunes, to get the better of the sense of their own danger, and the dread of almost inevitable annihilation. at this moment, what must be the feelings of a Father—of such a Father as Captain Pierce!

The ship struck on the rocks at or near Seacombe, on the island of Purbeck, between Peverel-Point, and St. Alban's-head, at a part of the shore where the cliff is of a vast height, and rises almost perpendicular from its base.

But at this particular spot the cliff is excavated at the foot, and presents a cavern of ten or twelve yards in depth, and of breadth equal to the length of a large ship, the sides of the cavern so nearly upright as to be extremely difficult of access, the roof formed of the stupendous cliff, and the bottom of it strewn with sharp and uneven rocks, which seem to have been rent from above by some convulsion of Nature.

It was at the mouth of this cavern that the unfortunate wreck lay stretched almost from side to side of it, and offering her broadside to the horrid chasm.

But at the time the ship struck it was too dark to discover the extent of their danger, and the extreme horror of their situation; even Mr. Melton himself conceived a hope that she might keep together till day light, and endeavoured to cheer his drooping friends, and in particular the unhappy ladies, with this comfortable expectation, as an answer to the Captain's enquiries, how they went on, or what he thought of their situation.

In addition to the company already in the round-

house, they had admitted three black women, and two soldiers wives, who with the husband of one of them had been permitted to come in, though the seamen who had tumultuously demanded entrance to get the lights, had been opposed, and kept off by Mr. Rogers, the third Mate, and Mr. Brimer the fifth, so that the numbers there were now increased to near fifty; Captain Pierce sitting on a chair, or some other moveable, with a daughter on each side of him, each of whom he alternately pressed to his affectionate bosom; the rest of the melancholy assembly were seated on the deck, which was strewn with musical instruments, and the wreck of furniture, trunks, boxes and packages.

And here also Mr. Meriton, having previously cut several wax candles into pieces, and stuck them up in various parts of the round-house, and lighted up all the glass lanterns he could find, took his seat, intending to wait the happy dawn, that might present to him the means of effecting his own escape, and afford him an opportunity of giving assistance to the partners of his danger; but observing that the poor ladies appeared parched and exhausted, he fetched a basket of oranges from some part of the round house, and prevailed on some of them to refresh themselves by sucking a little of the juice. At this time they were all tolerably composed, except Miss Mansel, who was in hysteric fits on the floor deck of the round-house.

But on his return to the company, he perceived a considerable alteration in the appearance of the ship, the sides were visibly giving way, the deck seemed to be lifting, and he discovered other strong symptoms that she could not hold together much longer, he therefore attempted to go forward to look out, but immediately saw that the ship was separated in the middle, and that the fore part had

changed its position, and lay rather farther out towards the sea; and in this emergency, when the next moment might be charged with his fate, he determined to seize the present, and follow the example of the crew, and the soldiers, who were now quitting the ship in numbers, and making their way to a shore, of which they knew not yet the horrors.

Mr. Meriton discovered a spar, which appeared to be laid from the ship's side to the rocks, and on this spar he determined to attempt his escape.

He accordingly laid him down on it, and thrust himself forward, but he soon found the spar had no communication with the rock, he reached the end of it, and then slipped off, receiving a very violent bruise in his fall, and before he could recover his legs, he was washed off by the surge, in which he supported himself by swimming, till the returning wave dashed him against the back part of the cavern, where he laid hold of a small projecting piece of the rock, but was so benumbed, that he was on the point of quitting it, when a seaman who had already gained a footing, extended his hand, and assisted him till he could secure himself on a little shelf of the rock, from which he clambered still higher, till he was out of the reach of the surf.

Mr. Rogers the third mate, remained with the Captain, and the unfortunate ladies, and their companions, near 20 minutes after Mr. Meriton had quitted the ship.

At this time the sea was breaking in at the fore part of the ship, and reached as far as the main-mast, and Captain Pierce gave Mr Rogers a nod, and they took a lamp, and went together into the stern gallery, and after viewing the rocks for some time, Captain Pierce asked Mr. Rogers, if he thought there was any possibility of saving the girls,

to which he replied, he feared there was not, for they could only discover the black face of the perpendicular rock, and not the cavern which afforded shelter to those who escaped; they then returned to the round-house, and Mr. Rogers hung up the lamp, and Captain Pierce, with his great coat on, sat down between his two daughters, and struggled to suppress the parental tear which then burst into his eye.

The sea continuing to break in very fast, Mr. M'Manus, a midshipman, and Mr. Schutz, a passenger, asked Mr. Rogers what they could do to escape who replied, "follow me," and they then all went into the stern gallery, and from thence by the weather upper quarter gallery upon the poop, and whilst they were there a very heavy sea fell on board and the round-house gave way, and he heard the ladies shriek at intervals, as if the water had reached them, the noise of the sea at other times drowning their voices.

Mr. Brimer had followed Mr. Rogers to the poop, where they had remained together about five minutes, when on the coming on of the last mentioned sea, they jointly seized a hen-coop, and the same wave which he apprehended proved fatal to some of those who remained below, happily carried him and his companion to the rock, on which they were dashed with such violence as to be miserably bruised and hurt.

Mr. Rogers and Mr. Brimer both however reached the cavern, and scrambled up the rock; on narrow shelves of which they fixed themselves, Mr. Rogers got so near to his friend Mr. Meriton as to exchange congratulations with him, but he was prevented from joining him by at least 20 men who were between them, neither of whom could move without immediate peril of his life,

They now found that a very considerable number the crew, seamen, soldiers, and some petty officers were in the same situation with themselves, though many who had reached the rocks below, had perished, in attempting to ascend; what that situation was they were still to learn; at present they had escaped immediate death, but they were yet to encounter cold, nakedness, wind, rain, and the perpetual beating of the spray of the sea, for a difficult, precarious, and doubtful chance of escape.

In a very few minutes after Mr. Rogers had gained the rock, an universal shriek, which still vibrates their ears, and, in which, the voice of female distress was lamentably distinguishable, announced the dreadful catastrophe; in a few moments all was washed, except the warring winds, and beating waves; the wreck was buried in the remorseless deep, and not an atom of her was ever after discoverable.

Thus perished the Halfswell.

What an aggravation of woe was this dreadful, his tremendous blow, to the yet trembling, and scarcely half saved wretches, who were hanging about the sides of the horrid cavern.

After the bitterest three hours which misery ever lengthened into ages, the day broke on them; they now found that had the country been alarmed by the guns of distress which they had continued to fire for many hours before the ship struck, but which from the violence of the storm were unheard, they could neither be observed by the people from above, as they were completely ingulphed in the cavern, and over-hung by the cliff, nor did any part of the wreck remain to point out their probable place of refuge; below, no boat could live to search them out, and had it been possible to have acquainted those who would wish to assist them, with their exact situation, no ropes could be conveyed into the cavity; to facilitate their escape.

The only prospect which offered, was to creep long the side of the cavern, to its outward extremity, and on a ledge scarcely as broad as a man's hand to turn the corner, and endeavour to clamber the almost perpendicular precipice, whose summit was near two hundred feet from the base.

And in this desperate effort did some succeed whilst others, trembling with terror, and the strength exhausted by mental and bodily fatigue, lost their precarious footing, and perished in the attempt.

The first men who gained the summit of the cliff were the Cook, and James Thompson, a Quartermaster, by their own exertions they made their way to the land, and the moment they reached it, hastened to the nearest house, and made known the situation of their fellow sufferers.

The house at which they first arrived was Eastington the present habitation of Mr. Garland, steward or agent to the proprietors of the Purbeck Quarries, who immediately got together the workmen under his direction, and with the most zealous and animated humanity, exerted every effort for the preservation of the surviving crew of this unfortunate ship; ropes were procured with all possible dispatch, and every precaution taken that assistance should be speedily and effectually given.

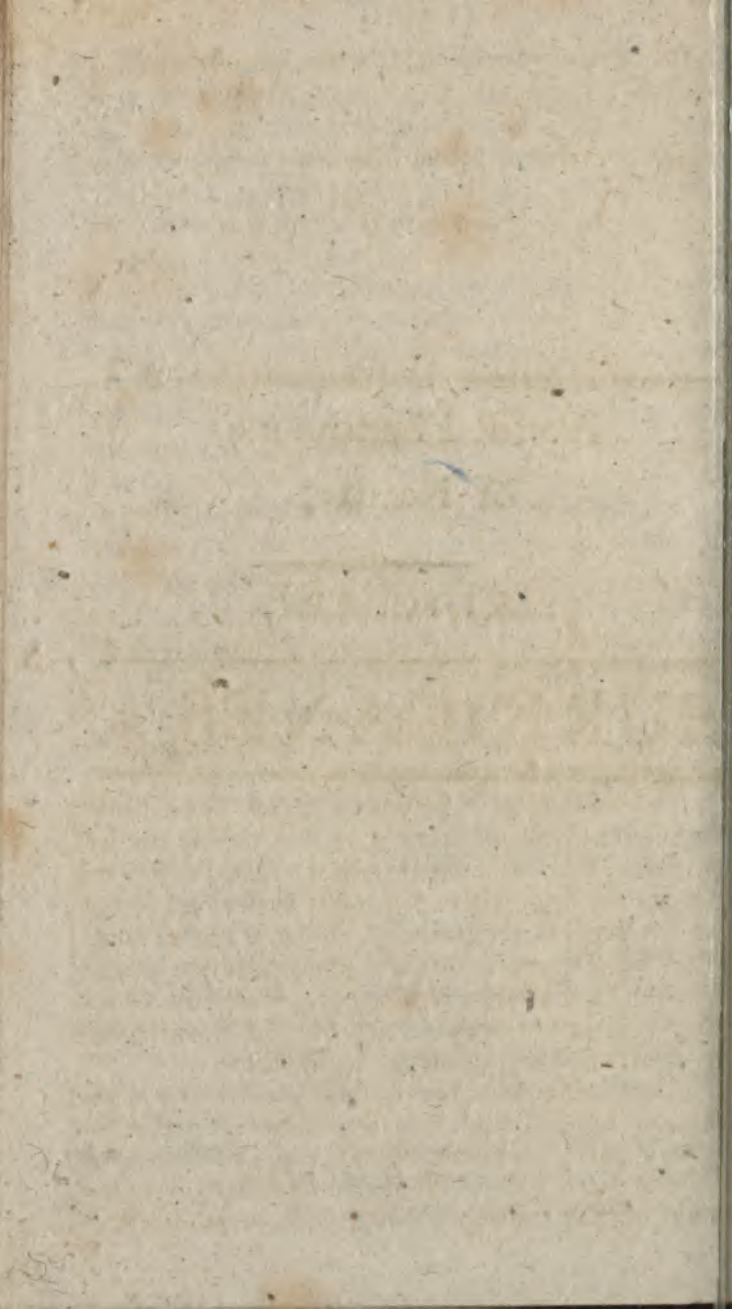
As the day advanced, more assistance was obtained; and as the life-preserving efforts of the survivors would admit, they crawled to the extremities of the cavern, and presented themselves to their preservers above, who stood prepared with the means which the situation would permit them to exercise, to help them to the summit.

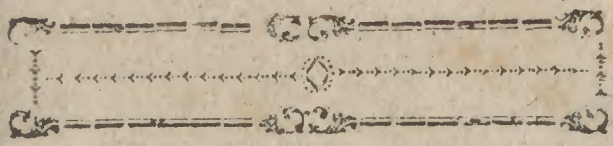
*Circumstantial Narrative of the loss of the Halswell, &c.
Compiled from the communications of the
chief Officers, who escaped, Page 10—47*

Awful Phenomena
of Nature,

PART FOURTH,

HURRICANES, &c.





AN ACCOUNT

OF A

Dreadful Hurricane, &c.

Hurricane in Jamaica, October, 1780.

A more general destruction in the extent of a given proportion of land, hath rarely happened; and the hurricane of 1780, will be ever acknowledged as a visitation that descends but once in a century, and that serves as a scourge to correct the vanity, to humble the pride, and to chastise the imprudence and arrogance of men.

The following description, which immediately and naturally arose from the melancholy subject; when the facts were fresh, and the ruins, as it were, before my eyes, will not, I trust, be deemed foreign to the general tendency of these remarks; and I shall be, I hope, excused, if I endeavour to awaken the recollection of calamities past, particularly as in those calamities the poor negroes had likewise their portion of disappointment and affliction.

This destructive hurricane began by gentle and almost unperceptible degrees, between twelve and one o'clock, on the morn of the 3d of October, and in the year 1780. There fell, at first, a trifling rain, which continued, without increase, until ten

o'clock; about which time the wind arose, and the sea began to roar in a most tremendous and uncommon manner. As yet, we had not any presentiment of the distress and danger which it was soon afterwards our unhappy fortune to encounter: and although between two and three o'clock in the afternoon, we saw the subordinate buildings begin to totter and fall around us; yet we did not think it necessary to provide, at that time, for our present or future safety. We now observed, with some emotion and concern, a poor pigeon endeavour with fruitless struggle, to regain its nest: it fluttered long in the air; and was so weakened at last that it was driven away by the wind, and in almost a moment was carried entirely out of sight.

As great events are sometimes the consequence of small beginnings, and as simple occurrences are often as striking as great concerns, I could not help dwelling with commiseration upon what I had seen and of anticipating, in some measure, the loss and inconvenience, though not the real *destruction*, of what soon afterwards ensued.

A poor discouraged ewe, intimidated by the terrors of the night, had found its way into the distant quarter of the house, which, at the time of her retreat, must have been wholly neglected; but to which it was afterwards, as our last resort, our unfortunate destiny to repair. She lay with patient cold, and fearful trembling, amidst the joists, nor could she be displaced by the importunity of kicks and cuffs that were incessantly dealt around her. She became a pathetic sufferer in the succeeding calamity; and he must have been a brute, indeed, and more deserving of the appellation she bore, who could have persevered in forcing her from such seeming protection, or could have been envious of that safety, which, from her unwillingness to re-

move, it was natural to think that she at that time enjoyed. I must confess, that I tried to dispossess her, but I tried in vain; and I have since reflected, that her preservation was as dear to her as mine was to me: and I feel a real comfort in repeating those exquisitely humane and tender lines of Ovid, which are so feelingly descriptive of the fate of this most useful and patient animal.

Every thing claims a kindred in misfortune; it levels like death; but death, alas! to some comes too late; and to others it comes too early. In a short time, perhaps, it was the fate of the poor weak creature above described, to feel its stroke. I might have caused, unknowingly, its execution; and might have feasted upon its flesh. The very idea chills my blood, and brings to my mind the remembrance of the dreadful situation of Pierre Viaud.

An act of dire necessity may be certainly excused; but to destroy (for the gratification of an appetite which we have in common with brutes) *that* which has been used to live in a domestic and in a cherished state around us, would argue an insensibility, from which every feeling mind must naturally revolt: and I should hope, that there are but few people who could eat of that aid, which they had seen lick the butcher's hand at the very moment that the knife was about to deprive its innocence of existence; and when it supplicated, with an almost human cry, its preservation of life, and with a blandishment so particularly expressive of tenderness and pity.

From the morning until four o'clock in the afternoon, the wind continued to blow with increasing violence from the north and east: but from that time, having collected all its powers of devastation, it rushed with irresistible violence from the

south; and in about an hour and half after that period, so general and persevering were its accumulated effects, that it scarcely left a plantain tree, a cane, or building, uninjured in the parish. At about four o'clock, we found it impossible to secure the house against the increasing impetuosity of the wind, which began to displace the shingles, uplift the roof, to force the windows, and to gain an entrance on every side: and its hasty destruction but too fully proved how soon, and how universally, it succeeded! We were now driven from the apartments above, to take shelter in the rooms below: but there we were followed by fresh dangers, and terrified by fresh alarms. The demon of destruction was wasted in the winds, and not a corner could escape its malignant devastation. While we were looking with apprehension and terror around us, the roof, rafters, plates, and walls of six apartments fell in, and immediately above our heads: and the horrid crashes of glasses, furniture, and floors, occasioned a noise and uproar, that may be more easily felt, than the weakness of my pen can possibly describe.

I will not attempt (indeed my abilities and language are unequal to the task) to awaken the sensibility of others, by dwelling upon private misfortunes, when the losses of many are entitled to superior regard: but egotism may be surely allowed in a narrative of this kind, where general comparisons must in some measure describe individual sufferings, and where what *one* has felt, has been the lot of *numbers*: and where a person has indentical-ly seen, and been involved in the same destruction, it is difficult to keep clear of expressions that do not immediately apply to, and speak the language of, self.

The situation of the unhappy negroes who pour-

d in upon us so soon as their houses were destroyed, and whose terrors seemed to have deprived them of sense and motion, not only very particularly augmented the confusion of the time, but very considerably added, by their whispers and distress, to the scene of general suspense, and the fluctuations of hope and alarm. Some lamented by anticipation, the loss of their wives and children, of which their fears had deprived them; while others regretted the downfall of their houses, of which they had so lately been the unfortunate spectators.

It will be difficult to conceive a situation more terrible than what my house afforded from four o'clock in the afternoon until six o'clock the ensuing morning. Driven, as we were, from room to room, while the roofs, the floors, and the walls, were crumbling over head, or falling around us; the wind blowing with a noise and violence that cannot even now be reflected upon without alarm; the rain pouring down in torrents; and the night which seemed to fall, as it were in a moment, uncommonly dark, and the gloom of which we had not a single ray to enliven, and the length of which we had not either spirits or resolution, by conversation, to cheer! The negro huts, as I before observed, were at this time destroyed; and the miserable sufferers rushed into the house, and began such complaints and lamentations, as added very considerably to the discomforts, and much increased the almost before unspeakable distresses, of the scene. One poor woman in particular (if *real* philanthropy would not disdain to make a discrimination of colour, was, in a very particular and sensible manner, entitled to pity. Her child and that a favourite, was nearly buried in the ruins of her house that fell around her: she snatched it, with all the inconsiderate impatience of maternal fondness, from the

expectation of a sudden fate: she strained it to her arms in simple love and unassisted protection, and flew to deposit her tender burden in the retreat of distant safety: she flew in vain: the tempest reached her and swept the child, unconscious of danger from her folding arms, and dashed her hopes and comforts to the ground. She recovered, and to her bosom restored the pleasing charge: she endeavoured to sooth it with her voice; but it was silent: she felt it, and she found it cold: she screamed, she lamented, and she cursed: nor could our sympathy console her sorrows, our remonstrances restrain her violence, nor our authority suppress her execrations. She felt like a mother, although an apathetic might say she did not feel like a Christian. What a cold and illiberal distinction! Give a Negro religion, and establish him in either the principles of obedience, or the knowledge of endurance, and he will not disgrace that tenet which shall be recommended by practice. Her lamentations were natural, and of consequence affecting; and give additional despondency to a night that was already too miserable to bear an augmentation of sorrow.

The darkness of the night, the howling of the winds, the growling of the thunder, and the partial flashes of the lightning that darted through the murky cloud, which sometimes burst forth with a plenitude of light, and at others hardly gave sufficient lumination to brighten the terrified aspect of the negroes; that, with cold and fear, were trembling around; the cries of the children who were exposed to the weather, and who (poor innocents!) had lost their mothers in the darkness and confusion of the night; and the great uncertainty of general and private situation combined; could not fail to strike the soul with as deep as it was an unaccustomed horror. In the midst of danger, in the aw-

ful moments of suspense, and when almost sunk by despair, we prayed for more frequent lightning to gild the walls, for more heavy thunder to out-roar the blast, in the philosophic consolation that they might purge the atmosphere, and disperse the storm: but alas! they were but seldom seen, or scarcely heard, as if afraid of combining the influence of light with the destruction of sound, and of railing upon the ground of terror, the superstructure of despair!

When the night was past, and our minds hung suspended between the danger we had escaped, and the anticipation of what we might expect to ensue; when the dawn appeared as if unwilling to disclose the devastation that the night had caused; when the sun-beams peeped above the hills, and illuminated the scene around—just God! what a contrast was here exhibited between that morning and the day before! a day which seemed to smile upon Nature, and to take delight in the prospects of plenty that waved around, and which produced, wherever the eye could gaze, the charms of cultivation, and the promise of abundance; but which fallacious appearances, alas! were to be at once annihilated by that extensive and melancholy view of desolation and despair, in which the expectations of the moderate, and the wishes of the sanguine, were to be so soon ingulphed. The horrors of the day were much augmented by the melancholy exclamation of every voice, and the energetic expression of every hand: some of which were uplifted in acts of execration; some wiped the tears that were flowing from the eye: while some, considering from whence the visitation came, were seen to strike their breasts, as if to chide the groans which it was impossible to restrain. An uncommon silence reigned around: it was the pause of consternation: it was a dumb ora-

tory, that said more, much more, than any tongue could utter. The first sounds proceeded from the mouths of the most patient of Nature's creatures from the melancholy cow that had lost its calf, and with frequent lowings invited its return; from the mother ewes, that with frequent bleatings recalled their lambs, which were frisking out of sight, unconscious of danger and unmindful of food: and which solemn and pathetic invitations, after such a night, the contemplation of such a scene, and the disposition of the mind to receive pathetic impressions, came home with full effect to those who had suffered, but who wished not to complain! If the distresses of the feathered tribe be taken into the description, their natural timidity, their uncertainty of food, of shelter, and domestic protection, if duly considered, trifling as these observations may appear, they certainly help to swell the catalogue of distress, to awaken the sigh of sensibility, and to teach us that their existence and their end are in the hands of the same Creator.

The morning of the 4th of October presented us with a prospect, dreary beyond description, and almost melancholy beyond example; and deformed with such blasted signs of nakedness and ruin, a calamity, in its most awful and destructive moments, has seldom offered to the desponding observations of mankind. The face of the country seemed to be entirely changed: the vallies and the plains, the mountains and the forests, that were only the day before most beautifully clothed with every verdure, were now despoiled of every charm; and the an expected abundance and superfluity of gain, in a few hours succeeded sterility and want; and every prospect, as far as the eye could stretch, was visibly stricken blank with desolation and with horror. The powers of vegetation appeared to be as one

suspended; and instead of Nature and her works, the mind was petrified by the seeming approach of fate and chaos. The country looked as if it had been lately visited by fire and the sword; as if the Tornado had rified Africa of its sands, to deposit their contents upon the denuded bosom of the hills; as if Aetna had scorched the mountains, and a volcano had taken possession of every height. The trees were uprooted, the dwellings destroyed; and in some places, not a stone was left to indicate the use to which it was once applied. Those who had houses, could hardly distinguish their ruins; and the proprietor knew not where to fix the situation of his former possessions. The very beasts of all descriptions, were conscious of the calamity: the birds, particularly the domestic pigeons, were most of them destroyed; and the fish were driven from those rivers, and those seas, of which they had before been the peaceful inhabitants. New streams arose, and extensive lakes were spread, where rills were scarcely seen to trickle before; and ferry-boats were obliged to ply, where carriages were used to travel with safety and convenience. The roads were for a long time impassible among the mountains; the low lands were overflowed, and numbers of cattle were carried away by the depth and impetuosity of the torrents; while the boundries of the different plantations were sunk beneath the accumulated pressure of the inundation.

To give you at once a more general idea of this tremendous hurricane, I shall observe, that not a single house was left undamaged in the parish; not a single set of works, trath-house, or other subordinate building, that was not greatly injured, or entirely destroyed. Not a single wharf, store house, or shed, for the deposit of goods, was left standing: they were all swept away at once by the billows

of the sea; and hardly left behind, the traces of their foundations. The negro houses were, and believe without a single exception, universally blown down: and this reflection opens a large field for the philanthropist, whose feelings will pity, at least those miseries which he would have been happy to have had the power to relieve. Hardly a tree or shrub, a vegetable, or a blade of grass an inch long was to be seen standing up and uninjured, the ensuing morning: nay, the very bark was whipt from the log-wood-hedges, as they lay upon the ground, and the whole prospect had the appearance of a desert, over which the burning winds of Africa had lately past.

At Savanna-la Mar, there was not even a vestige of a town (the parts only of two or three houses having in partial ruin remained, as if to indicate the situation and extent of the calamity): the very materials of which it had been composed, had been carried away by the resistless fury of the wave which finally completed what the wind began. A very great proportion of the poor inhabitants were crushed to death, or drowned, and in one hour alone, it was computed that forty, out of one and forty souls, unhappily and prematurely perished. The sea drove with progressive violence for more than a mile into the country; and carried terror as it left destruction, wherever it passed. Two large ships and a schooner were at anchor in the bay, but were driven a considerable distance from the shore, and totally wrecked among the mango-trees upon land.

Were I to dwell upon the numberless singularities of accidents that this dreadful storm occasioned, both among the mountains and on the plains over which it passed; were I to mention its particularities and caprices, and the variety of contingencies

which seemed impossible to happen, which imagination might trifle with, but which reason would scarcely believe; in short, were I to mention what I myself saw, and what numbers could witness; I should be afraid to offer them to the serious regard of my readers, in the dread that I might be thought to insult their understandings, and to advance as fiction, what it would be very difficult, indeed, to credit as truth.

The distresses of the miserable inhabitants of Savanna-la-Mar, during the period, and for a long time after the cessation; of the storm, must have exceeded the most nervous, as they would have surpassed the most melancholy powers of description. They were such as ought to have affected (if public losses and private sufferings can ever affect the stony bosoms of the rapacious, and the icy bowels of the interested), they were such, I say, as would almost have melted the unfeeling, and have softened the obdurate; but, alas! they could not, in too many instances, divert the rigid purpose, and withhold the rigorous hand of the man of business. Those who the day before were possessed, not only of every domestic comfort, but of every reasonable luxury of life, were now obliged to seek for shelter upon a board; and were exposed, in sickness and affliction, unprotected and unprovided, to the noisy intrusions of the wind and the cold, and the frequent visitations of the shower.

Were I to enumerate private afflictions in this scene of general devastation and despair, I should require the pathetic pen of that accomplished writer who has given a charm to grief, and a dignity to suffering, in the tender pages of Emma Corbet; and who could so well have expressed by corresponding sentiment, by flowing language, and glowing truth, those mighty sorrows which the

father endured for the death of a son, which wife sustained for the loss of her husband, and all those minor ties of consanguinity and friendship which were, at this unhappy and awful period, generally dissolved.

When we consider how very soon the gay pursuits and flattering appearances of life are destroyed; how uncertain are our possessions, and how subject to hopes, and how embittered by disappointments, are our pursuits; it is somewhat extraordinary, that we should be so much attached to the world, should entrust the sunshine of our days and without suspicion of a change, to every cloud should commit our present happiness to the instability of climate, to the vicissitudes of cold and heat to the terrors of the tempest, or the pestilential dangers of the calm:—it is astonishing, I again repeat, that we should repose all our comforts, and all our expectations, upon a world so full of mortification, disappointment, and affliction; when we must be conscious that we must so soon leave the world and all its empty delusions behind. When we look around, and see people who thought themselves above the reach of want, and reclining, after a long apprenticeship of patient industry and persevering toil, upon the lap of late-earned independence and honest repose; when we see them in the fruits of exertions thus made, and of comforts thus enjoyed, in one fatal and destructive hour,—we learn an awful lesson. Does this reflection awaken in our minds! and how much does it not warn us against building upon a foundation so very precarious! left, and at the best deceitful! But then to see them reduced to this situation, and struggling with infirmities, without the vigour of youth, or the exertions of manhood—without shelter from the weather, protection from power, or great a

drink to comfort the calls of declining nature, or interest enough to rescue them from the impending horrors of a gaol;—the accumulation of such misfortunes, is more than sufficient to excite compassion, but not always sufficient, as we find by melancholy example, to obtain relief.

So sudden an alteration, is enough to shake a philosophy that has not before been tried; and such a change is sufficient to excite those complaints which are caused by disappointment, but which may be born with patience, and finally overcome by calmness and resignation. If we meet with affliction, are we alone unfortunate? If we lose our all, are we the only beggars? How many are reduced to penury who cannot work! what numbers perish without help, or are entombed alive without pity! and yet how many emerge from distress and want, by a manly fortitude, and steady perseverance of conduct! The hand of power may oppress; but innocence has its peculiar triumph, as misery cannot reach the grave; for that is the retreat of Virtue, her consummation, and her end.

I can hardly prevail upon myself to believe, that the united violence of all the winds that rush from the heavens, blown through one tub, and directed to one spot, could have occasioned such destruction, and in so short a space of time, as that of which I was an unfortunate witness, and of which I am now become the feeble recorder. If we even conclude it possible that the ruins of our buildings could have been occasioned by the concentration of its fury, how are we to account for some phenomena of which we were the suffering and astonished spectators? How account for the sudden irruption of rivers, the lapses of earth, the disunion of rocks, the fissures of mountains, and for other objects of the sublime and terrible, which have changed and

disfigured the face of the country? How account for the hollow roarings of the sea, and for the instability of the climate for many months before and for the dreadful pauses that were observed take place, before the buildings were entirely overturned? It can hardly be doubted but that heaven and earth were combined in completing our destruction. One element alone has been hardly ever known to occasion so extensive a devastation; and the sudden swelling and raging of the sea, we may reasonably attribute to the heavings of the earthquake; to which likewise the general ruin of our houses may be in some measure attributed.

I have seen the ruins of Lisbon; and if it would not almost amount to folly to compare, in the place, great things with small, I should say, that the destruction there, great and melancholy as it was, could only have been, by comparison of building and extent of population, more dreadful than that calamity which I have now the presumption to describe. The earthquake at Lisbon happened in the morning; and although it almost universal affected its buildings, yet the productions of the earth received, in consequence, but little damage whereas the hurricane in Jamaica continued throughout the night, which has its particular terrors, independently of water, and of wind; and not only blew down every thing within its sweep, but spread desolation through the country round; and I am apt to believe, that the peculiar distresses of the unhappy sufferers of Savanna-la-Mar, must have equalled every thing (I still mean by comparison that is to be met with in the most melancholy annals of human misfortunes.

To this calamity, another unfortunately succeeded; and the consequences of which were still more fatal to the lives of those who had survived the

The stench that arose from the putrefaction of the dead bodies, which remained for many weeks without interment (and to numbers of which the rites of burial could not be administered), occasioned a kind of pestilence, that swept away a great proportion of those who had providentially escaped the first destruction. Almost every person in the town and neighbourhood was affected; and the faculty were rendered incapable, through sickness, to attend their patients, many of whom perished from the inclemency of the weather, from want of attendance, or supply of food: and to add to the general apprehension, the negroes poured down in troops to the scene of devastation (and, I am sorry to observe, that many white people were detected, upon the spot, of promiscuous plunder); and having made free with the rum that was floating in the inundations, began to grow insolent and unruly; and, by their threats and conduct, occasioned an alarm which it was found necessary, by exertion and caution, at once to suppress: and what the consequences, at such a time of general confusion and dread, might have been, had not the punches been immediately staved, can hardly, even at this distance of time, be reflected upon without error.

That the unenlightened negroes should be led to plunder, when they could do it with safety, and without the curbs of morality and religion to restrain them, is a circumstance not to be wondered at; as it is consistent with the common depravity of human nature; but that those who ought to be a check upon that licentiousness which they themselves perhaps have taught, should stand forward to invite misery of its last support, and even plunder every itself of its utmost farthing, is a reflection upon those who can distinguish black from white

in the colour of the human skin, but who cannot discriminate what is black from white in the integrity of man to man. To take advantage of a misfortune, in the time of public calamity and private affliction, and to raise a superstructure, however small, upon the ruins of others; is what, although it has been too often practised without chastisement and enjoyed without shame: and if those who are in authority over negroes, and to whom they are taught to look up for the theory as well the practice of integrity, shall set an example of worldly injustice, of rapacity and plunder—the negro who follows this infamous example, unconscious of wrong, is neither a principal, nor an accessory, although he may possibly be convicted of both; while the re-delinquent, who grows rich from infamy, is suffered to escape without trial, and consequently without a punishment. I must therefore from fact conclude, that a reformation in practical manners must begin with the white people in the colonies before any humane institutions for the relief of the slaves can either be carried into full, or even into partial effect; and this preliminary I shall hereafter endeavour to support by corollaries drawn from fact and experience.

The congratulations of the morning that succeeded the dreadful visitation which has been the subject of these pages, were such as seemed the spontaneous effects of what the bosom felt from the relief of supereminent dangers: the sad occasion seemed to create new ideas in the mind, and to give wings to feeling, of which the heart was before unconscious. Many people thought that the day of final judgment was come; and felt it as if it was then too late to reflect upon danger: for danger which implies uncertainty, would then have been a pleasing idea, inasmuch as chance is a contrast to

tal despair. It is the natural province of man to
 er; it is an appendage of his condition: but it
 uires a something more to learn to submit, and
 patient submission, without complaint, to bear.
 It is natural to suppose that the storm above des-
 bed, must have given rise to many distressing
 pathetic scenes; must upon some occasions have
 rowed up the soul, and upon others, have in-
 ed a tenderness and pity. Husbands and wives,
 parents and children, were in many places
 arated by the terrors of the night and se-
 ated, as before observed, to meet no more: but
 n these dreadful scenes I shall not attempt to
 ell, as their remembrance will survive the de-
 ption of my pen, in the melancholy perpetuity
 domestic afflictions; and which numberless sa-
 ies, more or less, to the destruction of their
 es, and the discomfort of their lives, will long,
 y long, have cause to lament.

I shall never forget the desolate appearance my
 ise made immediately after this catastrophe, nor
 many circumstances of distress and commiseration
 that alternately shocked and softened the mind.
 re a poor infant was seen extracted from the
 ns, and its lifeless body confined to the care and
 entations of its desponding parents; there sat a
 up of negroes bewailing with heaviness of heart,
 all the silent eloquence of streaming eyes; and
 reached-out hands, the total destruction of their
 e fortunes, in the wrecks of their houses, the
 of their effects, and the demolition of their
 unds; while others ran confusedly here and
 re, without knowing upon what errand they
 re bent, or where to begin, or how to set about
 restoration of their losses, or by what philoso-
 to console their minds.

There were many who wished to be employed
 rendering our situations more comfortable, but

who, from want of method, and from that hurry which is its constant attendant, were always in the way, and consequently did more harm than good. Some, indeed succeeded in their exertions; and I should little deserve those comforts I so soon found, in comparison to many others, did I not bear witness to the willing industry and unremitting application of the tradesmen and other negroes who were employed in the reparation of the offices, and in making tight those parts of our temporary dwellings which were destined to the accommodation of ourselves and friends.

Another Hurricane in Jamaica, 1781.

IN addition to the forementioned calamity, the inhabitants of the island of Jamaica, were again visited by this dreadful scourge of Humanity, within less than a twelvemonth after it happened—as appears from the following extract.

Kingston, Aug. 4, 1781.

About eight o'clock on Wednesday evening, the 1st inst. a hard gale of wind came on from the southward, but soon after veered to different points of the compass; before nine it increased to a perfect hurricane, and continued to rage till near eleven, greatest part of the time blowing from the south-east, accompanied by a heavy and incessant rain; nor did the storm altogether subside till about two in the morning: 73 sail of vessels, including sloops, schooners and thallops were on shore between Russel's hulks and the wharf of John Vernon, Esq; and Co. and several others to the westward of the town, but being mostly light vessels, the greatest part of them either have been, or will be got off,

ough not without considerable damage. The water in the harbour is supposed to have risen between four and five feet perpendicular, the planks of the wharfs in general being torn up, and any heavy articles that were upon them entirely carried away; of Messrs. Law and Hargreave's wharf, scarce the vestiges remain.—The greatest part of the returned fleet being at Port Royal, the accounts from thence are still more deplorable, two armed ships being either sunk or overset, and 24 men on shore between Salt Ponds and Musquito Point.

Many houses and piazzas in this town were blown down, and two negroes found drowned in the streets, in which torrents of water for several hours ran down with great rapidity.

His Majesty's ship Pelican was drove upon Monr Key, and supposed to be totally lost; the ship's company, excepting four; were providentially saved. Three vessels were drove ashore in the harbour Martha Brae; the ship Robert, of New-York, the sloop Beaver, and a sloop belonging to Kingston; the first is totally lost, the other two will be got off.

The ship Orange Bay, which went ashore near the Twelve Apostles, contrary to all expectation, has been got off. A considerable part of the cargoes of several other vessels, that were drove on shore near that place, has been saved.

His Majesty's ship Southampton, after having had an engagement with a French frigate off Cape Francis, was by the late storm dismasted and driven to wreck Riff, to the leeward of Port Royal, where she now remains; the Vaughan and several other vessels are gone to her assistance.

The storm very unfortunately proves to have been general throughout the island, though not equally

violent: in Westmoreland, St. Ann's, and St. Mary's the canes have received considerable damage, the plantain walks, together with the ripening crops have been totally destroyed; the other parts, particularly those to windward, have suffered in a much less degree.

Montego Bay

The storm on Wednesday the 1st of August has done much damage to our shipping; it has driven ashore two ships, the *Christina* and *Juno*, a small vessel of Niel's, and a brig belonging to Capt. A. Hamilton, is totally lost, and himself and crew drowned; M'Kay's wharf is carried away: Drs Piney and Ruessell, Messrs. Blake and Ingles's houses and stores are thrown down; all the provision and fine crops of corn are destroyed; the canes are all laid flat, and there is hardly an estate in Westmoreland but has suffered in buildings.

Ulysses, which came here from Kingston with 20,000, a part of the parliamentary grant to sufferers by the storm in October last, has been driven to sea, together with a brig out of Bluefield, and, through the whole parish of St. Elizabeth, provisions in general are destroyed, and the canes greatly damaged.

The accounts from Hanover are equally unfavorable.

St. Mary's, St. Ann's, and Trelawny, have suffered very considerably in their provisions and canes.

On Sunday last the ship *Ulysses*,—, Thomas Esq; commander, went into Lucea harbour under jury masts, with the loss of her bowsprit, being the damage we understand she has sustained.

Letters received from St. Elizabeth mention that the scarcity of provisions for the negroes is so great, in consequence of the last storm, that

any of the inhabitants are obliged to purchase
 rn at the exorbitant price of a bit for six ears,
 early to keep their slaves from perishing until
 her provisions can be procured.

It is yet impossible to say what number of lives
 ve been lost in this dreadful calamity; but they
 ust be numerous; in one plantain boat only,
 ne persons perished; as did the crew of the Ruby's
 at, at Port Royal, in endeavouring to assist a ves-
 in distress soon after the storm came on.

Edinburgh Advertiser, Nov. 6, 1781.

Tornado in Scotland, July, 1799.

Tornado. The following interesting account of
 this awful phenomenon, which took place at
 Whitelaw, in the parish of Ednam, Berwickshire,
 the 3d curt. we copy from the *Kelso Mail*.

“The weather through the day had been calm,
 with soft showers. At seven o'clock in the even-
 ing there was observed by many people, a little to
 the south-west of Mr. Tod's house at Whitelaw,
 a dense light coloured cloud of a very uncommon
 appearance. It resembled an inverted cone, reach-
 ing from the ground to a considerable height in the
 atmosphere. Its motion towards the house was slow
 and majestic. a person of no great agility on seeing
 its approach could easily have escaped from it. It
 began at length to whirl round with great rapidity,
 accompanied with a loud, rattling noise. The effect
 of its amazing power was first exhibited upon a large
 stack of straw in the barn-yard, which it raised in
 the mass to a considerable height in the air. A
 beam of timber, lying flat on the ground, was hurl-
 ed from its place several feet; and it will be thought
 most to exceed credibility when it is mentioned,
 that this beam was thirty-three feet long! Small
 trees were heaped together in mounds as if by
 wind. The farm-offices were materially injured;

some of them, indeed, were almost entirely stripped of their tiles.

“ Human strength was mere weakness when opposed to this war of elements. A stout young fellow, who had witnessed the scene in the barn-yard from an apprehension that the house must necessarily be tumbled down, run out for safety. The fitless enemy, however, lifted him over a wall five feet high, and carried him forwards for thirty-fourty yards!—Several of the servants were forced driven about, some in one direction and some in another, according to the eddy. The horses and cattle upon the farm exhibited the liveliest symptoms of alarm and agitation.

“ The dwelling house at Whitelaw, in which the family resided at the time, shook with such violence as to threaten its destruction and theirs. Providentially, however, amidst all the devastation, no person was materially hurt; and, what renders this more remarkable is, that the tiles which were torn from the surrounding offices fell from an immense height, in vast numbers, among the people exposed to the storm.

“ Before the cloud reached the farm house it fortunately divided, and the two parts taking different directions, only one of them struck the building. Had the whole collected force discharged itself once, few, it is probable, would have survived to relate the particulars.

“ There was little rain at Whitelaw either immediately before or after the whirlwind; but in the adjacent country, to the north and east, owing, it is supposed, to the violent concussion of the cloud there was a torrent of rain, and in some places but for a few minutes, as had not been observed in the memory of man.—*Edinburgh Weekly Journal, No.*