

AN ACCOUNT
OF THE
GREAT EARTHQUAKES,

IN THE
WESTERN STATES,

PARTICULARLY ON THE

MISSISSIPPI RIVER;

DECEMBER 16—23, 1811.

W. Leigh Brown

COLLECTED FROM FACTS.

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INTRODUCTORY.

THE many and repeated shocks of Earthquakes which have been felt in our southern and southwestern States, indicate that there has been some terrible, and perhaps destructive eruption of the Earth, somewhere to the south-west of us, perhaps Mexico, New-Spain, or Quito, of which we are hereafter to have tidings.—As the great Earthquake which sunk a part of Lisbon, was felt in Scotland, 1100 miles distant. Since the settlement of our country, we have no record of such dreadful convulsions of the Earth as is recounted in the following pages. And as a memorandum to assist the future historian, this pamphlet is presented, believing it comes from well authenticated sources.

Newburyport, Feb. 1812.

*To the Editor of the New-York Evening
Post.*

BIG PRAIRIE, (on the Mississippi, 761
miles from New-Orleans,) Dec, 25, 1811.

DEAR SIR,

Desirous of offering the most correct information to society at large, and of contributing in some degree to the speculations of the philosopher, I am induced to give publicity to a few remarks concerning a phenomenon of the most alarming nature. Through you, therefore, I take the liberty of addressing the world, and describing, as far as the adequacy of my means at present will permit, the most prominent and interesting features of the events, which have recently occurred upon this portion of our Western Waters.

Proceeding on a tour from Pittsburg to New-Orleans, I entered the Mississippi where it receives the waters of the Ohio, on Friday the 13th day of this month, and on the 15th in the evening, landed on the left bank of this river, about 116 miles from the mouth of the Ohio. The night was extremely dark and cloudy ; not a star appeared in the heavens, and there was every indication of a severe rain. For the three last days, indeed, the sky had been continually overcast, and the weather unusually thick and hazy.

It would not be improper to observe, that

these waters are descended in a variety of small craft, but most generally in flat bottomed boats, built to serve a temporary purpose, and intended to float with the current, being supplied with oars, not so much to accelerate progress as to assist in navigating the boats, and avoiding the numerous bars, trees and timber, which greatly impede the navigation of this river. In one of these boats I had embarked ; and the more effectually to guard against anticipated attacks from the Savage, who are said to be at present much exasperated against the whites, several boats had proceeded in company.

Precisely at two o'clock on Monday morning, the 16 inst. we were all alarmed by the violent and convulsive agitation of the boats accompanied by a noise similar to that which would have been produced by running over a sand bar. Every man was immediately roused and rushed upon deck. We were first of opinion that the Indians, studious of some mischief, had loosed our cables, and thus situated, we were foundering. Upon examination, however, we discovered that we were yet safely and securely moored. The idea of an earthquake then suggested itself to my mind, and this idea was confirmed by a second shock, and two others in immediate succession. These continued for the space of eight minutes. So complete and general had been the convulsion, that a tremulous motion was communicated to the very leaves on the surface of the earth. A few yards from the spot where we lay, the body of a large oak

was snapped in two, and the falling part precipitated to the margin of the river ; the trees of the forest shook like rushes : the alarming clattering of their branches, may be compared to the effect which would be produced by a severe wind passing through a large cane brake.

Exposed to a most unpleasant alternative, we were compelled to remain where we were for the night, or subject ourselves to imminent hazard in navigating through the innumerable obstructions in the river, considering the danger of running two-fold, we concluded to remain. At the dawn of day I went on shore to examine the effects of the shocks ; the earth about 20 feet from the water's edge was deeply cracked, but no visible injury of moment had been sustained ; fearing, however to remain longer where we were, it was thought most adviseable to leave our landing as expeditiously as possible ; this was immediately done. At a few rods distance from the shore, we experienced a fifth shock, more severe than either of the preceding. I had expected this, from the lowering appearances of the weather ; it was indeed most providential that we had started, for such was the strength of this last shock, that the bank to which we were (but a few moments since) attached, was rent and fell into the river, whilst the trees rushed from the forests, precipitating themselves into the water with force sufficient to have dashed us into a thousand atoms.

It was now light, and we had an opportu-

nity of beholding in full extent all the horrors of our situation. During the four first shocks, tremendous and uninterrupted explosions, resembling a discharge of artillery, were heard from the opposite shore. At that time I imputed them to the falling of the river banks. This fifth shock explained the real cause. Wherever the veins of the earthquake ran, there was a volcanic discharge of combustible matter to great heights, an incessant rumbling was heard below, and the bed of the river was excessively agitated, whilst the water assumed a turbid and boiling appearance, near our boat a spout of confined air breaking its way through the waters, burst forth, and with a loud report discharged mud, sticks, &c. from the river's bed at least 30 feet above the surface. These spoutings were frequent, and in many places appeared to rise to the very heavens. Large trees which had lain for ages at the bottom of the river, were shot up in thousands of instances, some with their roots uppermost and their tops planted; others were hurled into the air; many again were only loosened, and floated upon the surface. Never was a scene more replete with terrific threatenings of death. With the most lively sense of this awful crisis, we contemplated in mute astonishment a scene which completely beggars description, and of which the most glowing imagination is inadequate to form a picture. Here the earth, river, &c. torn with furious convulsions, opened in huge trenches, whose deep jaws were instantaneously closed; there

through a thousand vents sulphureous streams gushed from its very bowels leaving vast and almost unfathomable caverns. Every where Nature itself seemed tottering on the verge of dissolution. Encompassed with the most alarming dangers, the manly presence of mind and heroic fortitude of the men were all that saved them. It was a struggle for existence itself; and the meed to be purchased was our lives.

During the day there was, with very little intermission, a continued series of shocks, attended with innumerable explosions like the rolling of thunder; the bed of the river was incessantly disturbed, and the water boiled severely in every part. I consider ourselves as having been in the greatest danger from the numerous instances of boiling directly under our boat; fortunately for us, however, they were not attended with eruptions. One of the spouts which we had seen rising under the boat would inevitably have sunk it, and probably have blown it into a thousand fragments; our ears were constantly assailed with the crashing of timber, the banks were instantaneously crushed down, and fell with all their growth into the water. It was no less astonishing than alarming to behold the oldest trees of the forest, whose firm roots had withstood a thousand storms and weathered the sternest tempests, quivering and shaking with the violence of the shocks, whilst their heads were whipped together with a quick and rapid motion; many were torn from their native soil, and hurled with

tremendous force into the river ; one of these whose huge trunk, at least three feet in diameter, had been much shattered, was thrown better than a hundred yards from the bank, where it is planted in the bed of the river, there to stand a terror to future navigators.

Several small islands have been already annihilated, and from appearances many others must suffer the same fate. To one of these I ventured in a skiff, but it was impossible to examine it, for the ground sunk from my tread, and the least force applied to any part of it seemed to shake the whole.

Anxious to obtain landing, and dreading the high banks, we made for an island which evidenced sensible marks of the earthquake ; here we fastened to some willows, at the extremity of a sunken piece of land, and continued two days, hoping that this scene of horrors was now over ; still, however, the shocks continued, though not with the like frequency as before.

On Wednesday in the afternoon I visited every part of the island where we lay, it was extensive and partially covered with willow. The Earthquake had rent the ground in large and numerous gaps ; vast quantities of burnt wood in every stage of alteration, from its primitive nature to stove coal had been spread over the ground to very considerable distances ; frightful and hideous caverns yawned on every side, and the earth's bowels appeared to have felt the tremendous force of the shocks which had thus riven the surface. I was gratified with seeing several

places where those spouts which had so much attracted our wonder and admiration had arisen, they were generally on the beach and have left large circular holes in the sand formed much like a funnel. For a great distance round the orifice vast quantities of coal have been scattered, many pieces weighing from fifteen to twenty pounds were discharged 160 measured paces. These holes were of various dimensions ; one of them, which I observed most particularly, was sixteen feet in perpendicular depth, and sixty-three feet in diameter at the mouth.

On Thursday morning the 19th, we loosed our cables, with hearts filled with fervent gratitude to Providence, whose protection had supported us through the perils to which we had been exposed.

As we descended the river, every thing was a scene of ruin and devastation, where a short time since the Mississippi rolled its waters in a calm and placid current. Now, subterranean forests have been ushered into existence ; and raise their heads, hard and black as ebony, above the surface of the water, whose power has been so wonderfully increased, that strength and skill are equally baffled. Our boat was borne down by an irresistible impulse, and fortunately escaped uninjured. We passed thousands of acres of land which had been cleft from the main shore and tumbled into the water, leaving their growth waving above the surface. In many places single trees and whole brakes of cane had slipped into the river. A singular

instance of this kind peculiarly attracted my observation :---a large sycamore had slipped from its station on the bank and had so admirably preserved its equilibrium, that it has been left standing erect in the water immersed about ten feet, and has every appearance of having originally grown there.

The shocks I conceive were most sensibly experienced upon the islands, and numbers of them have been much shattered, for I observed where the strata of earth was fairest, it did not crack, but undulated excessively : At Fort Pickering on the extremity of the Fourth Chickasaw Bluff, and 242 miles from the mouth of the Ohio, the land is strong and high. Here, however, the earth was extremely agitated, and the block house which is almost a solid mass of hewn timber, trembled like the aspin leaf.

The obstructions in this river, which have always been quite numerous, are now so considerably increased as to demand the utmost prudence and caution from subsequent navigators, ; indeed, I am very apprehensive that it will be almost impassible in flood water ; for until such time it will be impossible to say where the currents will hereafter run, what portion (if any) of the present embarrassments will be destroyed, and what new sand bars, &c. may yet be caused by this portentous phenomenon. **MANY POOR FELLOWS ARE UNDOUBTEDLY WRECKED, OR BURIED UNDER THE RUIN OF THE BANKS. OF THE LOSS OF FOUR BOATS I AM CERTAIN.**

It is almost impossible to trace at present the exact course of this Earthquake, or where the greatest injuries have happened ; from numerous

Inquiries, however, which I have made of persons above and below us at the time of the first shock, I am induced to believe that we were very nearly in the height of it ; the ruin immediately in the vicinity of the river, is most extensive on the right side in descending. For the first two days, the veins appeared to run a due course from W. to E. afterwards they became more variable, and generally took a N. W. direction.

At New-Madrid, 70 miles from the confluence of the Ohio, and on the right hand, the utmost consternation prevailed amongst the inhabitants ; confusion, terror and uproar presided ; those in the town were seen running for refuge to the country, whilst those in the country fled with like purpose towards the town. I am happy, however, to observe, that no material injury has been sustained.

At the little Prairie, 103 miles from the same point, the shocks appear to have been more violent, and were attended with severe apprehensions ; the towns were deserted by their inhabitants, and not a single person was left but an old negro man, probably too infirm to fly. Every one appeared to consider the woods and hills most safe, and in these confidence was reposed. Distressing, however, as are the outlines of such a picture, the latest accounts are not calculated to increase apprehensions. Several chimneys were destroyed, and much land sunk. No lives, however, have been lost.

A little below Bayou river, 130 miles from the same point, and 13 miles from the spot where we lay, the ruin begins extensive and general.

At Long Reach, 146 miles, there is one continued forest of roots and trees which have been ejected from the bed of the river.

At and near Flour Island, 174 miles, the destruction has been very great, and the impediments in the river much increased.

At the Devil's Race Ground, 193 miles, an immense number of very large trees have been thrown up, and the river is nearly impassable. The Devil's Elbow, 214 miles, is in the same predicament. Below this, the ruin is much less, and indeed no material traces of the earthquake are discoverable.

The western country must suffer much from this dreadful scourge ; its effects will I fear be more lasting than the fond hopes of the inhabitants in this section of the Union may at

present conceive. What have already been the interior injuries I cannot say. My opinion is, that they are inferior in extent and effect.

The continuance of this earthquake must render it conspicuous in the pages of the Historian, as one of the longest that has ever occurred. From the time that the first shock was felt at 2 o'clock in the morning of the 16th, until the last shock at the same time in the morning of the 23d, was 168 hours. Nothing could have exceeded the alarm of the aquatic fowls; they were extremely noisy and confused, flying in every direction, without pursuing any determinate course. The few Indians who were on the banks of the river have been excessively alarmed and terrified. All nature indeed seemed to sympathize in the commotion which agitated the earth. The sun rarely shot a ray through the heavens, the sky was clouded, and a dreary darkness brooded over the whole face of creation; the stars were encircled with light, and the comet appeared hazy and dim; the weather was incessantly varying from oppressive heat to cold, and during many of the shocks some rain fell.

I subjoin the ensuing table of the shocks, in the order of time in which they occurred, as extracted from the minutes.

16th December—the first shock followed by three o'clock in the morning. 7 A. M. happened a very severe shock—9, 3 more shocks—10, 11, one shock—25 after 11, another—5 after 12, a violent shock after 1 P. M. another—31 after 1, a long and violent shock—1, a shock—10 after 5, very severe shock—42 after 5, before 6 do—15 of 7 do—35 after 7 do—10 of 8 do—5 after 9 do—25 after 9 do—20 of 10 do—15 of 10 do—10 of 10 do—11, three do—12 of 11 great shock—28 after 11, severe shock—December, 30 minutes past 5 a shock—5 in the morning a very awful shock followed, with three others—5 after 12 noon a very and dreadful shock, appearances extremely threatening—11 P. M. 2 severe shocks—24 after 11 a shock—26 after 11 do—48 after 11 do—18th December, 17 minutes past 1 a shock—17 after 3 do—30 after 3 do—5 of 4 do—1 after 5 do—35 after 5 do. very severe—5 after 6 do—7 of 8 do—20 after 12 meridian—10 after 1 P. M. do—10 severe—30 after 2, five shocks in succession—3 o'clock after 3 do severe—43 after 4 do—8 after 10 do—11 do. very severe—19th December, 30 minutes after 5 A. M. 3 shocks in succession—17 of 9 severe shock—30 after 1 P. M. a severe shock—2 do—30 after 8 do—30 after 9 do—30 after 11 do—20th December, 30 minutes after 9 A. M. a shock—10 after 11 a long and tremendous shock—21st December, several reports of shocks or distant thunder was heard—22d December, 11 o'clock A. M. a slight shock—23d December, at 2 in the morning a very severe shock.

Thus we observe that there were in the space of time mentioned before, eighty-nine shocks. It is hardly possible to conceive the convulsion which they created, and I assure you

I believe that there were many of these shocks, which, had they followed in quick succession, were sufficient to shake into atoms the firmest edifices which art ever devised.

I landed often, and on the main shore, as well as on several islands, found evident traces of prior eruptions, all which seem corroborative of an opinion, that the river was formed by some great earthquake. To me, indeed, the bed appears to possess every necessary ingredient; nor have I a doubt but that there are at the bottom of the river, strata upon strata of volcanic matter. The great quantities of combustible materials, which are undoubtedly there deposited, tend to render a convulsion of this kind extremely alarming; at least, however, the beds of timber and trees interwoven and firmly matted together at the bottom of the Mississippi, are tolerable correct data from which may be presumed the prior nature, &c. of the land. The trees are similar to those which grow upon the banks, and why may not an inference be drawn that some tremendous agitation of nature, has rent this once a continued forest, and given birth to a great and noble stream. There are many direct and collateral facts which may be adduced to establish the point, and which require time and investigation to collect and apply.

Thus, my dear Sir, I have given a superficial view of this awful phenomenon; not so much to convey instruction upon a very interesting subject, as to gratify the curiosity of the public relative to so remarkable an event.

Should other interesting circumstances occur, relative to this Phenomenon, I will do myself the pleasure of making you another communication.

With much respect, I am, Sir, your obedient servant,
WILLIAM LEIGH PIERCE.

NEW-ORLEANS, Jan. 10, 1812.

DEAR SIR,—Agreeable to my promise in the last communication which I had the pleasure of making you, I present a further detail of the late Earthquake.

Its range appears to have been by no means confined to the Mississippi. It was felt in some degree throughout the Indiana Territory and the states of Ohio, Kentucky and Tennessee. I have conversed with gentlemen from Louisville and Lexington, (in Kentucky) who state it was severe in both of those places. At the latter indeed it continued for twelve days, and did some injury to several dwellings. From thence it ranged the Ohio River, encreasing in force until it entered the Mississippi, and extending down that river to Natchez, & probably a little lower. Beyond that it was not perceived.

It is reported, through the medium of some Indians, from the country adjacent to the Washita, who arrived a few days since at the Walnut-Hills, some distance above Natchez,

that the Burning Mountain, up the Washita River, had been rent to its base. This information I received from a Settler at the Hills, and his appearance was such as to attach credit to his information.

Yours, &c.

WM. L. PIERCE.

Earthquake in North-Carolina.

To the Editors of the Raleigh Star.

Gentlemen—I take the liberty to transmit the following account of an earthquake which happened on the night between the 15th and 16th inst.

On Monday morning about one o'clock, the inhabitants of this place were roused from their peaceful slumbers by a dreadful sound. Some waggoners, who were up at the time it began, said it resembled, but was louder, than if 100 waggons were driven at full speed down the mountain. This gave us considerable alarm. The timid took to prayer, expecting every moment, as they say, to hear the sound of the last trumpet. The more courageous ventured to open their doors, to discover what occasioned the noise—a sudden trembling of the earth caused fresh terror and alarm, from which we had not time to recover, when we felt a violent shock which lasted about three minutes, and was attended with a hollow rumbling noise, and ended with a dreadful crash, leaving behind a strong sulphureous stench.

For the remainder of the night, all was still and calm, but was spent by us in trembling anxiety. When the wished-for morning came, we were happy to find no lives were lost;—but while some of us were in the street congratulating each other on our happy escape, we were again alarmed by a much louder noise than any we had heard before. It was quickly followed by a more violent shock, which gave the earth an undulating motion, resembling the waves of the sea. Two of those who were standing with me were thrown off their feet; the rest of us with difficulty kept from falling, while two or three Cows that were near us were unable to stand, and testified their fear by their loud bellowing, which with the cries of the women and children, and the terror that was depicted in the countenance of the men, presented a scene of horror I am unable to describe.

It is somewhat strange that its effects were more violent in the valleys than on the mountains; A tan yard, in a valley near this place, had several vats displaced, and the edges of some were raised three feet above their former level. It would far exceed the bounds of this letter to describe all the

phenomena produced by this awful convulsion of nature; rocks moved, hills shook, houses shattered, &c.

A wonderful change has taken place in the manners of the people. I believe so many fervent prayers never were put up in this place as were on that fearful night and morning. I hope what has been done may produce a revival in religion.

I have just seen a gentleman from Knoxville, who passed Sunday night with Mr. Nelson at the warm springs; from his account his situation was more terrifying than ours. For several hours previous to the shock the most tremendous noise was heard in the neighboring mountains. At intervals it was quiet; but would begin with so much violence that each repetition was believed to be the last groan of expiring nature. The shock at that place did but little damage except to a few huts that were built near the springs for the accommodation of invalids. The fulminating of the mountains was accompanied with flashes of fire, seen issuing from their sides—each flash ended with a snap, or crack, like that which is heard on discharging an electric battery, but infinitely louder. This induced him to believe the Earthquake was caused by the electric fluid.

In the morning it was observed that a large stream of water, warm (temperature by Fah. 142 deg.) issued from a fissure in a rock on the side of the mountain, which had been opened the preceding night. While they were examining it, another shock was felt which lasted two minutes.

Several masses of stone were loosed from their ancient beds and precipitated from the summits and sides of the mountains. One in particular, well known to western travellers by the name of the painted rock, was rolled into the road, so as to entirely obstruct the passage of waggons, which cannot pass again till a new road is cut.

JOHN C. EDWARDS.

Ashville, (N. C.) Dec. 19, 1811.

Earthquake in Tennessee.

A letter from a gentleman of the first respectability in Tennessee, received in this city, states, that the Earthquake so generally felt on the 16th Dec. was so violent in the vicin-

ity of his residence, that several chimnies were thrown down, and that 18 or 20 acres of land on Piney river, had suddenly sunk so low that the tops of the trees were on a level with the surrounding earth. Four other shocks were experienced on the 17th, and one or more continued to occur every day to the 30th ult. the day of the letter.

Raleigh, (N. C.) Jan. 24, 1812.



NOTE.—Besides the foregoing, there are accounts of the Earthquake on the 16th Dec. in Connecticut, Maryland, Pennsylvania, Virginia, South-Carolina and Georgia; the effects of which, however, do not appear to have been so severe as above related.