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[Correspondence.]

THE EARTHQUAKE OF 1811 AT NEW MADRID, MISSOURI.

(From the narrative of an eye-witness.)

BY TIMOTHY DUDLEY, OF JACKSONVILLE, ILLINOIS.

I am indebted to James Ritchie, esq., of Jerseyville, Illinois, for the facts embodied in this article, who was living with his family at the time of this earthquake in the vicinity of its most violent commotions, and those scenes were so vividly impressed upon his mind that, after a half century has nearly passed away, they are as fresh and vivid as though they transpired yesterday:

On the west bank of the Mississippi river, sixty-five miles below the mouth of the Ohio, by the windings of the river, and about twenty miles in a direct line, stands an old Spanish town called New Madrid. The southern boundary line of Kentucky is the famous political line of $36^{\circ} 30'$ north latitude, constituting also the southern boundary line of Missouri, crossing the Mississippi river a short distance below New Madrid. Thirty miles below was an old French village called Little Prairie, and south and west of this village is a long cypress swamp extending north and south a distance of one hundred and twenty miles, and in breadth east and west twenty-five or thirty miles, which was called fifty years since the St. Francis swamps.

I have been thus particular in locating these old towns and lowlands from the fact that evidence is continually accumulating which goes to prove that all the commotions which have disturbed the earth's surface for the last half century in the western States have had their origin in the St. Francis swamps.

On the 16th day of December, 1811, at two o'clock in the morning, the inhabitants of New Madrid were aroused from their slumbers by a deep rumbling noise like many thunders in the distance, accompanied with a violent vibratory or oscillating movement of the earth from the southwest to the northeast, so violent at times that men, women, and children caught hold of the nearest objects to prevent falling to the ground.

It was dangerous to stay in their dwellings, for fear they might fall and bury them in their ruins; it was dangerous to be out in the open air, for large trees would be breaking off their tops by the violence of the shocks, and continually falling to the earth, or the earth itself opening in dark, yawning chasms, or fissures, and belching forth muddy water, large lumps of blue clay, coal, and sand, and when the violence of the shocks were over, moaned and slept, again gathering power for a more violent commotion.

On this day twenty-eight distinct shocks were counted, all coming from the southwest and passing to the northeast, while the fissures would run in an opposite direction, or from the northwest to the southeast.

On a small river called the Pemiseo at that time stood a mill owned by a Mr. Riddle. This river ran a southeast course, and probably

was either a tributary of the St. Francis or lost itself in those swamps. This river blew up* for a distance of nearly fifty miles, the bed entirely destroyed, the mill swallowed up in the ruins, and an orchard of ten acres of bearing apple trees, also belonging to Mr. Riddle, nearly ruined. The earth, in these explosions, would open in fissures from forty to eighty rods in length and from three to five feet in width; their depth none knew, as no one had strength of nerve sufficient to fathom them, and the sand and earth would slide in, or water run in, and soon partially fill them up.

After the earthquake had subsided there was not a perfect row of trees left in this orchard—one-half destroyed, some leaning in one direction, others directly contrary; some covered to the limbs in these chasms as they filled up, and others with their roots turned entirely out of the earth.

Large forest trees which stood in the track of these chasms would be split from root to branch, the courses of streams changed, the bottoms of lakes be pushed up from beneath and form dry land, dry land blow up, settle down, and form lakes of dark, muddy water.

Where the travelled, beaten road ran one day, on the next might be found some large fissure crossing it, half filled with muddy, torpid water. It was dangerous to travel after dark, for no one knew the changes which an hour might effect in the face of the country, and yet so general was the terror that men, women, and children fled to the highlands to avoid being engulfed in one common grave. One family, in their efforts to reach the highlands by a road they all were well acquainted with, unexpectedly came to the borders of an extensive lake; the land had sunk, and water had flowed over it or gushed up out of the earth and formed a new lake. The opposite shore they felt confident could not be far distant, and they travelled on in tepid water, from twelve to forty inches in depth, of a temperature of 100 degrees, or over blood heat, at times of a warmth to be uncomfortable, for the distance of four or five miles, and reached the highlands in safety.

On the 8th of February, 1812, the day on which the severest shocks took place, the shocks seemed to go in waves, like the waves of the sea, throwing down brick chimnies level with the ground and two brick dwellings in New Madrid, and yet, with all its desolating effects, but one person was thought to have been lost in these commotions.

A family of the name of Curran were moving from New Madrid to an old French town on the Arkansas river, called the Port; had passed the St. Francis swamps and found some of their cattle missing; Le Roy, the youngest son, took an Indian poney, rode back to hunt them, and was in the swamp when the first shock took place, was never seen afterwards, and was supposed to have been lost in some of those fearful chasms.

The Port was about one hundred miles below what is now called Little Rock, and claims its settlement as far back as the settlement of

* I have used this expression because it was so given by the narrator, and used by the people, as conveying the appearance of these scenes as they passed before them.

Philadelphia. It was about one hundred and fifty miles southwest of the swamps, and the people heard the first shocks on the 16th of December; and at the same time as the citizens of New Madrid, but the sounds and shocks came from the northeast.*

I will briefly notice some of the phenomena connected with these earthquakes, the state of the weather at the time, and the opinions which the people held in regard to their origin, or the great cause of them.

The weather was warm and smoky, and had been so for some days, not a breath of air stirring, and so thick and smoky that the Kentucky shore, one mile distant, could not be seen at all. They were in a balmy Indian summer. The morning after the first shock, as some men were crossing the Mississippi, they saw a black substance floating on the river, in strips four or five rods in breadth by twelve or fourteen rods in length, resembling soot from some immense chimney, or the cinders from some gigantic stove-pipe. It was so thick that the water could not be seen under it. On the Kentucky side of the river there empties into the Mississippi river two small streams, one called the Obine, the other the Forked Deer. Lieutenant Robinson, a recruiting officer in the United States army, visited that part of Kentucky lying between those two rivers in 1812, and states that he found numberless little mounds thrown up in the earth, and where a stick or a broken limb of a tree lay across these mounds they were all burnt in two pieces, which went to prove to the people that these commotions were caused by some internal action of fire.

In the Mississippi river, about five miles above what was then called the first Chickasaw Bluffs, but in later times Plum Point, was an island about three miles long, covered with a heavy growth of timber, which sank in one of these shocks to the tops of the trees, which made the navigation extremely dangerous in a low stage of the river.

About four miles above Paducah, on the Ohio river, on the Illinois side, on a post-oak flat, a large circular basin was formed, more than one hundred feet in diameter, by the sinking of the earth, how deep no one can tell, as the tall stately post-oaks sank below the tops of the tallest trees. The sink filled with water, and continues so to this time.

The general appearance of the country where the most violent shocks took place was fearfully changed. So many farms were ruined that our government gave to each landed proprietor a title to a section (640 acres) of land in what was then known as the Boon Lick country, on condition of proving their loss, and by relinquishing their rights in the injured lands to government.

In all grants of land to private individuals, although the laws regulating such grants may be very stringent, cunning men can be found who will find opportunity to evade these laws, and such was the case undoubtedly in many of these old grants, but the actual sufferers were

* The shocks felt in October, 1857, were the most violent in St. Louis, and seemed to come from the south or southwest. In point of fact, seldom a year passes when these shocks are not felt. Slight, indeed, they may be, as the inhabitants are so accustomed to them they pay no regard to them, and it is only when the more violent are felt, and extend beyond these earthquake regions, that any notice is taken of them.

relieved, even if some few individuals were benefitted at the expense of the general government.

This country was first settled under the Spanish government, ceded by that government to France, and by the French government, under the Emperor Napoleon, to the United States in 1803.

The Spanish government pursued a most liberal policy towards settlers to encourage emigration, every man who settled in this new country being allowed one hundred arpents, a married man and wife two hundred arpents, each male child also one hundred, each female child fifty; and twenty arpents to each slave, but in no case to exceed six hundred arpents to each family, or one square mile, an arpent being about seven-eighths of an English acre, and no single claim to be more than eighty rods in breadth fronting on the river.

The purchase took place in April, 1803, was ratified by the American Congress in December following, and all settlers from the time of the purchase in April to the ratification of the treaty were allowed the same privilege as those which were taken under the Spanish government.

The face of the country had been so much changed by the terrific explosions and commotions of these earthquakes, so many fields, dwellings, and other kinds of property destroyed, that Congress passed the law for their relief before alluded to, but the remembrance of those awful scenes still remains in the memory of the few survivors who witnessed them, and will probably linger around the memory of the past until their eyelids close in "the sleep that knows no waking."