

1901 Southern Utah Earthquake

**November 13, 1901
9:39 p.m.**

Magnitude 6 ½

Newspaper Articles

**This publication is an archive of newspaper articles
relating to the**

**1901 SOUTHERN UTAH EARTHQUAKE
Wednesday, November 13, 1901
9:39 p.m.**

Magnitude 6 1/2

Newspaper articles were collected as the basic step of an earthquake education project funded by the U.S. Geological Survey under the National Earthquake Hazards Reduction Program (NEHRP). The project, entitled *Personalizing the Earthquake Threat in the Intermountain West*, involves researching and archiving newspaper articles, individual accounts, photographs, and additional sources of information for 48 earthquakes that have occurred in Utah, Idaho, Wyoming, and Montana since settlement. This information forms the basis for several earthquake education products: World Wide Web site publication of information collected, travelling photographic exhibit, scripted slide sets, manuscript for short book, and classroom activity packets.

Edith (Deedee) O'Brien and Susan J. Nava
Earthquake Education Services
University of Utah Seismograph Stations
705 Browning Bldg.
Salt Lake City, Utah 84112

phone: 801-581-6201
fax: 801-585-5585
email: obrien@seis.utah.ed

Information Categories

The content of each newspaper article has been classified by the categories of information it contains. The first letters of the information categories assigned each article are listed by the headlines in the Table of Contents that follows. Listed below is an explanation of the types of information that can be expected within each category.

A — Aid:

provide medical services, shelter, donations, loans, advice, encouragement, implement safety measures

B— Building Damage:

damage to structure itself plus windows, chimneys, facade
(typically damage visible from outside the building)

E — Earthquake Description:

where, when, duration, direction, sound, motion, number and timing of aftershocks

G — Geologic Effects:

changes at the Earth's surface—fault scarps, rockfalls, landslides, ground cracks, ground subsidence, sand boils, water spouts; effects on springs, lakes, wells

H — Humor

I — Impact:

changes in daily routine; rumors; influx of reporters and politicians; cost in dollars

L — Lifelines:

effects on transportation—roads, bridges, railroads, airports, vehicles
effect on communications—telephone, telegraph
effects on power, gas, water, and sewer lines
effects on dams

N — Nonstructural Effects:

effects on plaster, furnishings (typically damage or rearrangement of furnishings visible inside a building)

P — People:

emotional and physical effects on people, responses during and after;
includes deaths, injuries, near misses

R — Recovery:

clean up, rebuild, returning to normal routine

S — Scientific Explanation of the day

1901 Southern Utah earthquake - listing of newspaper articles

NEWSPAPER: Deseret Evening News

Date	Headline	Page	Information Categories	Utah Towns Mentioned
11/14/1901	Buildings Were Badly Wrecked	1	B, E, G, H, I, N, P	Beaver - Beaver Co.
11/14/1901	Ran Screaming	1	E, N, P	Fillmore - Millard Co.
11/14/1901	Parowan Shocked	1	E	Parowan - Iron Co.
11/14/1901	Felt at Nephi	2	E	Nephi - Juab Co.
11/14/1901	Three Shocks at Cedar	2	E, P	Cedar City - Iron Co.
11/14/1901	Oasis Shaken Up	2	E, P	Oasis - Millard Co.
11/14/1901	Shock in Salt Lake	3	E, H, N, P	Salt Lake City - Salt Lake Co., Elsinore - Sevier Co. Lund - Iron Co.; Manti - Sanpete Co.
11/15/1901	Monroe. Severe Earthquake Shock Unnerves the People	4	B, E, N	Monroe - Sevier Co.
11/15/1901	Kanosh. Echoes of the Earthquake	4	E, N, P	Kanosh - Millard Co.
11/15/1901	Holden. Slight Earthquake Shock	4	E	Holden - Millard Co.
11/16/1901	Junction. Severe Shock of Earthquake	5	B, E, G, L, P	Junction - Piute Co.
11/16/1901	Elsinore. Damaged by Earthquake. But Few Whole Houses Left in Town.	5	B, E, P	Elsinore - Sevier Co.
11/16/1901	Circleville. Quiet of this Peaceful Town Rudely Shocked by Seismic Disturbance	5	N, P	Circleville - Piute Co.
11/16/1901	Moab. Earthwaves Felt in Eastern Utah	6	E	Moab - Grand Co.
11/16/1901	Burrville. People Are Frightened But No Damage Done by Earthquake	6	E, P	Burrville - Sevier Co.
11/16/1901	Aurora. How It Feels To Be "Shaken"	6	B, E, N, P	Aurora - Sevier Co.
11/16/1901	Richfield. Injured By Earthquake--Best Buildings Suffer Most	7	B, N	Elsinore, Joseph, Richfield - Sevier Co.

1901 Southern Utah earthquake - listing of newspaper articles

NEWSPAPER: Deseret Evening News

Date	Headline	Page	Information Categories	Utah Towns Mentioned
11/16/1901	Annabella. Announced Its Approach; Earthquake Came As a Rushing Noise	7	B, E, N	Annabella - Sevier Co.
11/18/1901	Electrical Display in Sanpete	7	E, G	Sanpete Co., Sevier Co., Piute Co.
11/18/1901	St. George. No Serious Damage From Visit of Earthquake	8	E, N, P	St. George - Washington Co.
11/18/1901	Bloomington. Earthquake Shock	8	E	Bloomington - Washington Co.
11/18/1901	Thurber. Ward Reorganized; Whole Town Literally and Spiritually Shaken Up	8	E	Thurber - Wayne Co.
11/18/1901	Panguitch. Thought of Judgement Day	8	B, E, N, P	Panguitch - Garfield Co.
11/18/1901	Harmony. Earthquake Shock More or Less Severe Throughout Dixie	9	E, P	Harmony, Bellevue, Leeds - Washington Co.
11/18/1901	Loa. Wayne County Stirred Up by Earthquake--No Serious Damage	9	E, N, P	Fremont, Loa, Lyman - Wayne, Co.
11/18/1901	Panaca, Nevada. Lincoln County Feels the Seismic Waves	9	E, N, P	none
11/20/1901	Beaver Earthquake Damages	10	B, E, I, N, P	Beaver - Beaver Co.
11/22/1901	Provo. Mt. Baldy Severely Shaken	11	E, G, P	Glen-Erie mine near Mt. Baldy - Piute Co.
11/25/1901	Mammoth. Earthquake Causes a Water Famine	11	L	Mammoth, Robinson - Juab Co.
11/29/1901	Koosharem. Peculiar Freaks of the Recent Earthquake	12	E, G, N, P	Koosharem - Sevier Co.
11/30/1901	Dr. J.E. Talmage On Utah Earthquakes	13	S	Salt Lake City - Salt Lake Co.; Beaver - Beaver Co.
12/06/1901	Earthquakes For the Past Month	15	E, G, L	Marysvale - Piute Co.
12/06/1901	Last date searched			

1901 Southern Utah earthquake - listing of newspaper articles

NEWSPAPER: Salt Lake Herald

Date	Headline	Page	Information Categories	Utah Towns Mentioned
11/14/1901	Whole State Is Shaken Up By a Severe Earthquake	16	E, N, P	Beaver - Beaver Co.; Manti - Sanpete Co.; Oasis - Millard Co., Salt Lake City - Salt Lake Co.
11/15/1901	Loss from Earthquake May Reach \$100,000	17	B, E, G, I, L, N, P	Annabella, Central, Elsinore, Joseph, Kimberly, Monroe, Richfield - Sevier Co. Beaver - Beaver Co. Cedar City, Lund, Parowan - Iron Co. Circleville, Junction, Marysvale - Piute Co. Ephraim, Mt. Pleasant - Sanpete Co. Fillmore - Millard Co. Nephi - Juab Co.
11/16/1901	Earthquakes (editorial)	21	S	none
11/19/1901	Forty Drunks, Fifteen Fights and an Earthquake in One Night	22	E, L	Kimberly (Annie Laurie mine) - Sevier Co.
11/21/1901	Felt Sixty Shocks	22	E, P	Kimberley (Deer Creek side of Gold Mountain) - Sevier Co.
11/25/1901	Heavy Earthquake Shakes Ground Loose	22	G	Koosharem - Sevier Co.
12/07/1901	Marysvale People Still Enjoy Four Earthquake Shocks Per Day	23	E, G	Marysvale - Piute Co.
12/08/1901	Last date searched			

1901 Southern Utah earthquake - listing of newspaper articles

NEWSPAPER: Salt Lake Tribune

Date	Headline	Page	Information Categories	Utah Towns Mentioned
11/14/1901	Salt Lake Shaken Up	24	E, H, N, P	Salt Lake City - Salt Lake Co.
11/14/1901	Southern Utah Shaken	24	B, E, N	Elsinore - Sevier Co.; Lund - Iron Co.
11/15/1901	Utah Towns Shaken	25	B, E, G, L, N, P	Annabel, Central, Elsinore, Kimberly, Monroe, Richfield, Salina, Sigurd - Sevier Co. Beaver, Milford - Beaver Co. Cedar City, Parowan - Iron Co. Kanab, Vermillion - Kane Co. Marysvale - Piute Co. Nephi - Juab Co. Toquerville - Washington Co.
11/16/1901	Echoes of the Earthquake	28	B, E, N, P	Ferron - Emery Co. Parowan - Iron Co. Deseret - Millard Co. Circleville, Junction, Kingston, Marysvale - Piute Co. Aurora - Sevier Co.
11/18/1901	The Earthquake at Loa	29	E	Loa - Wayne Co.
11/18/1901	Poker Players Prayed	29	H, P	Kimberley, Monroe - Sevier Co.
11/21/1901	Earthquake Shocks Daily	29	E	Beaver - Beaver Co.
11/25/1901	Matters in Sevier	29	G	Koosharem - Sevier Co.
11/26/1901	Earthquake Increases Water	30	G	Marysvale - Piute Co.
12/07/1901	Earthquakes at Marysvale	30	E, G, P	Marysvale - Piute Co.
12/07/1901	Last date searched.			

1901 Southern Utah earthquake - listing of newspaper articles

NEWSPAPER: The Standard (Ogden)

Date	Headline	Page	Information Categories	Utah Towns Mentioned
11/14/1901	Earthquake in Utah Did Much Damage	31	B, E, N	Beaver - Beaver Co. Cedar City, Lund, Parowan - Iron Co. Elsinore - Sevier Co. Kanab - Kane Co.
11/14/1901	Last date searched			

BUILDINGS WERE BADLY WRECKED **Tremendous Earthquake Visits Beaver** **Academy, Meeting And Court Houses Narrowly Escape Demolition**

Beaver, Utah, Nov. 14—A tremendous earthquake occurred here at 9:33 last night. Much damage done to public and private buildings.

Court house and "Mormon" meeting house badly injured, the buildings at the Beaver Branch Academy badly wrecked, particularly the Murdock building, and in town, plate glass windows broken, chimneys down, houses badly cracked. No fatalities. A number of slight shocks since morning.

In the earthquake at 9:30 last night, the Beaver county court house received a great deal of damage, the walls are cracked in about twenty-five places, and the roof is crushed in by the falling chimneys.

It is not thought that this will stand another shock of similar force.

The Beaver Woolen Mills are in a very bad shape, in fact almost collapsed.

The entire front of the Co-op store will have to be rebuilt at a cost of perhaps \$4,000.

Cline & Bros., merchants, had their large plate glass window broken, costing \$100, and a small lot

of goods destroyed.

Geo. H. Fennemore, lost about one hundred dollars in drugs and fixtures.

The building occupied by the Beaver Drug Co., is much injured by the walls cracking, and the loss of drugs is nominal.

There is scarcely a building of any size, but has received more or less injury.

At the Beaver Branch Academy, the Murdock building is injured seriously, and all the houses in the Faculty rooms are damaged.

The Mansfield-Murdock building is cracked in the front, but no material damage is done to that building.

The Gem saloon will have to be repaired, as it is in a bad state.

The meeting house here has the ceiling badly wrecked and a large quantity of the plaster has fallen, and the chimneys will have to be rebuilt.

[Deseret Evening News; November 14, 1901]

RAN SCREAMING

Women at Fillmore Rushed Frantically Into Streets in Night Robes

Fillmore, Utah, Nov. 14—An earthquake of considerable violence visited this city last night at 10:45 o'clock. Windows, doors, dishes and individuals got a severe shock. In many instances the plaster was shaken from the houses and it was almost impossible for a person to maintain a standing position.

Some women ran screaming into the street,

others attired in their night robes ran for their neighbors, while brave men gave unmistakable signs of fear. There were three distinct undulating waves, accompanied by a roaring noise, the duration of which has been variously estimated at from one to three minutes of time.

[Deseret Evening News; November 14, 1901]

PAROWAN SHOCKED

All the Buildings Receive a General Shaking Up Last Night

Parowan, Utah, Nov. 14—An earthquake shock occurred here last night, giving all buildings a general shaking up. No material damage has been

reported.

[Deseret Evening News; November 14, 1901]

FELT AT NEPHI

Three Shocks Startle the Residents of Little Chicago Last Night

Nephi, Nov. 14—Nephi was visited with three earthquake shocks at 9:40 last night which caused considerable alarm for a few moments while they lasted. They were distinctly felt all over the city and

while things were shaken somewhat there was no damage done.

[Deseret Evening News; November 14, 1901]

THREE SHOCKS AT CEDAR

Nervous Residents Are Almost Prostrated by Fear of Disturbance

Cedar City, Utah, Nov. 14—A severe shock of earthquake was felt here about 9:30 last night as in all the surrounding country.

The first indication was a low rumbling sound as a mighty wind, then followed a sudden terrible shaking up as of a mammoth upheaval.

Windows rattled as if by some one striking with timbers. Cupboards rattled and some plaster fell in places. Many are almost prostrated who are of a

nervous temperament. No damage as yet reported.

The shock seemed to come from the southwest to northeast. The eastern part of town felt it more than the western. Frequent shocks have been felt in this locality but none so severe as this last.

After the first heavy roar there were two lighter ones in rapid succession, lasting in all six seconds of time.

[Deseret Evening News; November 14, 1901]

OASIS SHAKEN UP

People Frightened Out of Their Beds— Excitement Prevails

Oasis, Utah, Nov. 13—A heavy earthquake shock was felt at this place at 9:37 p.m. and lasted for about twenty-five or thirty seconds. Seemed to travel from the northeast to the southwest. People were

frightened out of their beds and general excitement prevailed for a short time.

[Deseret Evening News; November 14, 1901]

SHOCK IN SALT LAKE

Disturbances Distinctly Felt Here Last Night for Nearly a Minute

A well known gentleman in this city remarked some time ago that nothing short of an earthquake would bring about the moral reforms that were more or less contended for during the last campaign. It now seems that the elements have accepted his conclusions and are acting upon his suggestions, for about 9:30 last night the solid earth began to shake and a few people were brought to their knees voluntarily and otherwise. Three waves passed over the city, each one being stronger than the one preceding it, so that the last shock was no trifling matter. The earthquake, for all the experts pronounced it so to have been, seemed to concentrate around the Wey hotel, where it came nearly precipitating a panic. The guests on the third floor felt it most. In fact they felt it so badly that some of them ran out into the hall. Some people from California were in the hotel. They were old hands when it came to California earthquakes, but they didn't know anything about the Utah article. They felt that they were on strange ground and were not certain as to how long they would be on any ground at all. In front of the hotel the shock was very distinctly felt by some Knutsford guests who happened to be standing there. But nothing was felt at the Knutsford, or indeed immediately across the street, indicating that an earthquake like a cyclone travels on a more or less narrow path, and that outside of those limits no disturbance is felt.

Whenever an earthquake visits a large city of

course the tall buildings seem to be their special toys. Last night the Dooly block began to vibrate but it was only for a moment. It was pronounced enough, however, for several men who were in the building to notice it. The quake then proceeded diagonally across the street and entered Smith's drug store, gave the stove a shake and the clerk a scare, and a customer said, "Wouldn't that jar you?"

When next discovered it was in the University club, on the third floor of the Jennings' block. H. B. Windsor was sitting with his chair tilted against the wall, when suddenly his head was lurched to one side and then to the other. The disturbance was over in a flash and Windsor was beginning to wonder if it was paresis when Professor Eaton and Mr. Parsons, who were present, remarked upon the shock and then Windsor knew he was safe, in the head at least.

The shock was distinctly felt in other sections of the city, including the Hooper building and the New Grand theater. Although the shock was slight and the first one felt here for years, any such elemental disturbance is portentous and has had the result of throwing some of the citizens into a somber frame of mind. Salt Lake, however, was not the only section visited by the earthquake. Reports have come in from various parts of the state, telling of some very pronounced shocks. At Lund it stopped clocks and jostled the cars on the railroad tracks. It was felt very sensibly at Elsinore, also at Manti and other points. [Deseret Evening News; November 14, 1901]

MONROE

Severe Earthquake Shock Unnerves The People

Special Correspondence.

Monroe, Sevier Co., Utah, Nov. 13—About 9:30 tonight a most severe shock of earthquake was felt which lasted from one to one and one-half minutes and caused a general gathering of the people to the center of town where their several experiences were recited. Almost all complained of cracked walls, one chimney is reported to have toppled over. Bottles in the stores were thrown from the shelves to the floor,

one roof of a lean-to fell upon a bed where a man was asleep; no serious damage occurred. The direction of the vibration was from the southwest. Milk pans were emptied, lamp chimneys were shaken from the lamps and hanging lamps continued to swing for five minutes after the general tremor. Some say that two more slight shocks were felt after the first one.

[Deseret Evening News; November 15, 1901]

KANOSH

Echoes Of The Earthquake Sensational Experiences

Special Correspondence.

Kanosh, Millard Co., Nov. 14—Our little town last night had a very enlivening experience from quite a severe shock of earthquake which took place at 9:35 o'clock. Many people were much frightened, some jumping from their beds and rushed screaming into the streets for help, while others shouted fire, fire! One widow lady, Mrs. Ida Penny, went into hysterics, and remained in that condition for hours. It is quite amusing to listen to the ludicrous experiences of some people. So we will simply narrate our own.

We were sitting reading the "News," wife nearby had dropped her paper into her lap and entered the land of nod. Suddenly a noise like unto a band of cats galloping upon the porch; this soon developed into the rush and roar of stampeded cattle, then the whole house appeared to be dancing upon troubled waters, the chandelier swung like the pendulum of a clock, the glass and crockeryware danced and chattered. This continued for several seconds, ample time for wife to be very wide awake, jumping to her feet and looking for the source of disturbance, then exclaiming, "It's an earthquake," and looked at me and added, "How white you are." And the general action and effects upon the various people seem to plainly indicate that if the modern revivalist could command a little earthquake rattle there would be a great scramble for the penitent seat.

[Deseret Evening News; November 15, 1901]

HOLDEN

Slight Earthquake Shock

Special Correspondence.

Holden, Millard Co., Nov. 14—An earthquake shock was felt here last evening shortly before 10 o'clock, causing the windows to rattle and the houses

to tremble. No damage was done further than robbing people of their sleep for a time.

[Deseret Evening News; November 15, 1901]

JUNCTION Severe Shock Of Earthquake

Special Correspondence.

Junction, Piute Co., Nov. 14—The most severe shock of earthquake within the memory of the oldest inhabitant passed over here from the southwest last evening at about 9:35, lasting a period of perhaps one minute, and during that time two or three chimneys were shaken down and a few buildings otherwise slightly damaged. A great quantity of milk was shaken from pans, water from pails, and bottles from shelves in stores and other places. Many people were panic stricken and one or two cases of fainting from fear and excitement were reported. Many lighter

shocks, variously estimated from 15 to 30 seconds were also felt during the night.

Light shocks continued all night at about the rate of 20 per hour. Many people remained up all night, and some who are not in the habit of being punctual in their prayers, had time to get up and pray. Huge rocks rolling from the hills did some damage to the wagon road in the East Fork canyon, and it is said that the Bullion canyon road at Marysvale suffered still worse.

[Deseret Evening News; November 16, 1901]

ELSINORE Damaged By Earthquake But Few Whole Houses Left In Town

Special Correspondence.

Elsinore, Sevier Co., Nov. 14—The first calamity that has ever visited this place occurred last night in the form of an earthquake. At half past nine the shock came and the people were thrown into a wild state of excitement. Those who occupied rock or brick buildings gathered in log or frame houses and very few went to bed that night. The light of the morning revealed a sad state of affairs throughout the town. It was found that the destroyer had left but few whole houses in town. Several gable-ends were down, dozens of chimneys were gone, and those that

stood were in such a condition that they will have to be taken down. Those who sustained the most damage were the Jensen hotel, the Co-op, Peter Christensen, now on a mission, P. K. Christen, C. W. Beck, Theo. Nielsen, Aug. Kotten, Anton Johnson. All rock and brick houses with one or two exceptions are damaged more or less, one or two beyond repair. The meeting house did not escape, neither did our fine new schoolhouse. The shock came from southwest to northeast and lasted 5 or 6 seconds. Several light tremors were felt during the night.

[Deseret Evening News; November 16, 1901]

CIRCLEVILLE Quiet Of This Peaceful Town Rudely Shocked By Seismic Disturbance

Special Correspondence.

Circleville, Piute Co., Nov. 14—Last night the quiet of our little town was rudely disturbed by an earthquake that shook the houses from the very foundations, displacing things from shelves and

cupboards and overturning tables. Some of the people ran from the houses screaming, while others fainted.

[Deseret Evening News; November 16, 1901]

MOAB

Earthwaves Felt In Eastern Utah No Damage Reported

Special Correspondence.

Moab, Grand Co., Nov. 14—Many of the people of this vicinity were very much astonished last night at about 9:30 on account of a very perceptible earthquake shock. The wave created by the disturbance seemed to be from south to north, and was in the nature of an abrupt horizontal shake,

settling down to a heavy trembling, lasting perhaps for eight or ten seconds. The sensation to the writer was absolutely foreign to any thing ever before experienced, and one that seemed to remove all query as to the nature of the disturbance.

[Deseret Evening News; November 16, 1901]

BURRVILLE

People Are Frightened But No Damage Done By Earthquake

Special Correspondence.

Burrville, Sevier Co., Nov. 14—Last night was one of excitement for this little burgh. At 9:45 o'clock the people were startled by their houses

shaking and rocking, which lasted for two minutes. The shock was a very severe one, but caused no damages further than frightening the people.

[Deseret Evening News; November 16, 1901]

AURORA

How It Feels To Be "Shaken"

Seismic Disturbance Causes Slight Damage To Property

Special Correspondence.

Aurora, Sevier Co., Nov. 14—We had a very decided earthquake last night at 9:45. The vibration seemed to be from southwest to northeast. The writer had retired for the night, and the quaking was so violent it seemed it would pull the bed from under its occupant. It was not a rocking but jerking back and forth. It rattled dishes in the cupboard, slopped over pans of milk in the milk safe, set the dogs to barking and chickens cackling. It was accompanied by a rumbling sound, like a train of wagons approaching.

Investigation this morning showed that slight

damage was done to several buildings in town. The worst is to our large rock school house, built three years ago. Several cracks are noticeable, one large rock in the wall was cracked in two. Some of the plaster was knocked off, and all the ceilings in the upper rooms were cracked. The house and brick granary of Wm. M. Palmer were slightly cracked. J. F. Curtis' new house was injured likewise. Plaster was knocked off from other buildings. Two slight tremors were felt in succession ten minutes after the shock.

[Deseret Evening News; November 16, 1901]

RICHFIELD

Injured By Earthquake—Best Buildings Suffer Most

Special Correspondence.

Richfield, Sevier Co., Nov. 15—The earthquake caused a great deal of damage in many parts of Sevier county. In Joseph and Elsinore the shock was hardest, and many buildings in both places were seriously injured. The injury in most instances was done to the largest, most solid and best structures. In

Elsinore the new school house and the Co-op store were damaged considerably. Here in Richfield a great deal of plastering was shaken from the tabernacle, the James M. Peterson bank had most of the plaster torn from the upstairs rooms, and many chimneys on other buildings were thrown down. [Deseret Evening News; November 16, 1901]

ANNABELLA

Announced Its Approach Earthquake Came As A Rushing Noise

Special Correspondence.

Earthquake Does Some Damage

Annabella, Sevier Co., Nov. 14—There was a very severe earthquake shock here last evening at 9:30 o'clock. The first intimation we had was the noise, as if a band of wild horses was approaching,

then came the shaking of the houses. Pictures were shaken from the walls and many loose articles were thrown about, and some houses were cracked almost beyond repairing. The course of the earthquake was from southwest to northeast.

[Deseret Evening News; November 16, 1901]

ELECTRICAL DISPLAY IN SANPETE

Weather Director L. H. Murdoch Tells Of Phenomena Witnessed During The Recent Earthquake In Southern Utah— Rocks On Mountains Shattered By Electricity Or Seismic Disturbance

Weather Director L. H. Murdoch of the local weather office returned Saturday afternoon, from his trip to Manti where he inspected the local voluntary observation station. He brought back with him news of features connected with the late earthquake in Piute and Sevier counties, particularly, which are highly sensational and out of the usual run of seismic disturbances in this section. Mr. Murdoch learned that during the occurrence of the earthquake there were electrical displays all along the ridges and crests of the mountains, in the shape of flashes of light suggestive of aurora borealis displays, the phenomenon continuing while the terrestrial

disturbances were in operation. The electricity shot up into the air in great sheets, which though not very vivid, were bright enough to attract attention.

Moreover Mr. Murdoch learned that rocks along the tops of the ridges and crests of the mountains had been not only dislodged, but torn and shattered either by the force of the earthquake, or by electricity, or both. He found the people of Sanpete, Sevier and Piute counties still very much frightened over the recent occurrence and scarcely knowing what was to come next.

[Deseret Evening News; November 18, 1901]

ST. GEORGE
No Serious Damage
From Visit Of Earthquake

Special Correspondence.

St. George, Washington Co., Nov. 14—A shock of earthquake passed through this city last night about 9:40 o'clock. There were three distinct oscillations, giving everything a general shaking up. People who had retired to bed and did not realize the cause of such disturbance hurried up to see who was

taking off their wagons; others thought someone was trying to shake doors and windows out and wished to know what was wanted at that time of night. No very serious damage is reported except the cracking of the ceiling in two rooms of the new school building.

[Deseret Evening News; November 18, 1901]

BLOOMINGTON
Earthquake Shock

Special Correspondence.

Bloomington, Washington County, Nov. 14—Last night, about a quarter past nine o'clock we had a shock of earthquake, passing from southwest to

northeast; in some parts of town it gave a severe shaking, while on the west part, it was very light.

[Deseret Evening News; November 18, 1901]

THURBER
Ward Reorganized
Whole Town Literally And Spiritually Shaken Up

Special Correspondence.

Thurber, Wayne Co., Nov. 14—This ward has been reorganized with Geo. W. Stringam as Bishop, William Meeks as first and Nils Hanson as second counselors. This led the Church members to expect a regular stirring up, with advancement and progress

on ever hand, but the people did not anticipate such a literal shaking up as commenced in earnest at 9:30 last night, when, without any previous warning, an earthquake shook the whole town.

[Deseret Evening News; November 18, 1901]

PANGUITCH
Thought Of Judgment Day
People Greatly Alarmed By The Internal Disturbances Of The Earth

Special Correspondence.

Panguitch, Garfield Co., Nov. 14—At twenty minutes to 10 o'clock last night our town was visited with a heavy shock of earthquake, which lasted about half a minute, shaking up the people and buildings considerably, frightening many of the ladies and

some of them fainted, thinking the judgment day had arrived in earnest. Some of the brick buildings were cracked and some of the ceiling of the new school house fell to the floor.

[Deseret Evening News; November 18, 1901]

HARMONY

Earthquake Shock More Or Less Severe Throughout Dixie

Special Correspondence.

Harmony, Washington Co., Nov. 14—The harmony of this little hamlet was disturbed last night by a severe shock of earthquake which occurred about 9:30 o'clock. The shock was so severe that it spread fear throughout every home—one described it "as though the bedstead upon which he slept was in the hands of a giant being pushed violently back and forth from south to north." The shock lasted for a

full minute, and disturbed the peace of those awake and the slumbers of those asleep.

The same shock was felt at Duffin ranch by the inmates of the house, but was not noticed by a number of cattle men camped in the yard. At Bellevue the shock was also felt. At Leeds the shock was very severe.

[Deseret Evening News; November 18, 1901]

LOA

Wayne County Stirred Up By Earthquake—No Serious Damage

Special Correspondence.

Loa, Wayne Co., Nov. 14—An earthquake shock was felt at Fremont, Loa and Lyman shortly before 10 o'clock last night. Some few were frightened lest their homes were falling down, but news has been

received of no more serious damage being done than the breaking of a few dishes and the stopping of clocks.

[Deseret Evening News; November 18, 1901]

PANACA, NEVADA

Lincoln County Feels The Seismic Waves

Special Correspondence.

Panaca, Lincoln Co., Nevada, Nov. 14—There was a heavy shock of earthquake here last night at 9:40. Two distinct shocks were felt, each lasting nearly a minute, with about 30 seconds between

them. Furniture rattled, rocking chairs rocked, and hanging lamps swayed several inches. Everybody felt the peculiar movement, except some who were sleeping soundly.

[Deseret Evening News; November 18, 1901]

BEAVER
Earthquake Damages
Losses Estimated At \$15,000—People Greatly Frightened

Special Correspondence.

Beaver, Beaver Co., Nov. 16—On Wednesday evening, Nov. 13th, at 9:32, Beaver and vicinity received the most severe shaking up the people have experienced in forty years. With only a moment's warning the city was thrown into confusion—people who could ran as if for their lives. In ten minutes what before was a quiet scene changed into one of frenzied excitement; men, women and children were running, screaming, fainting and praying as they never were known to before. All were painfully aware that something terrible had happened, but just what they did not know. The shock which struck such a telling blow seemed to come from the east and traveled westward, though there are some who say the course was from southwest to northeast, whichever the case may be it is none the less true that it was fifteen seconds of terrible experience for our people. The crash of falling chimneys and broken glass, the barking of dogs, bellowing of cattle, neighing of horses and cackling of fowls formed a chorus that was awful to hear up to 2:30 a.m. Thursday, during which time the earth never ceased to tremble, slight and sudden shocks followed in rapid succession and again at 5 o'clock the roar and shock was very perceptible. All day Thursday people stood in the middle of the streets waiting for the dreaded return. No one felt like working nor talking except of the terrible experience of the night before, but were thankful that it was no worse.

Our county building suffered most of all, the property being almost a complete wreck, though still standing. The town clock in the tower stopped at 32 minutes past 9 o'clock and still refuses to tick.

Justice court had just adjourned and all were out

of the building except County Clerk Hurst, Sheriff Barton, and Mr. Teitgen, who were on the second floor in the clerk's office and from their own account the race for safety it can only be compared to a police raid on an opium joint.

The damage to property throughout the city can safely be placed at \$15,000, being distributed about as follows:

County court buildings	\$5,000
Latter-day Saints' meeting house	500
Assembly hall	500
M. M. & Co., business block	1,200
Beaver Co-op, business block	1,000
I. Cline & Bro.	500
Beaver Creamery	1,000
Fernley & Bakes	50
Gem saloon	250
Walter Tolton's residence	600
David Frazier's residence	500
L. W. Harris' residence	400
Dr. G. H. Fennemore drug store	100
Factory buildings	700
B. B. B. Y. A. school building	3,000

Reports from other settlements are meager. Greenville suffering considerably, Adamsville, Minersville and Milford light.—Beaver City Clipper. [Deseret Evening News; November 20, 1901]

PROVO Mt. Baldy Severely Shaken

Provo, Nov. 22—Bishop Nephi Packard, of Springville, was in Provo yesterday. He has been spending some time at the Glen-Erie mine, situated about eight miles west of Marysville near Mount Baldy, and high up in the mountains. He was there on the 13th, when the earthquake which visited the southern part of the state commenced, and it was particularly severe in that region, shock following shock at intervals of a few minutes all through the night, shaking the cabin so that sleep was impossible

and dislodging and moving huge masses of rock, some as large as the Provo opera house. This kept up continuously for three days and nights, when the bishop left and came home in order to get some sleep. A letter to the Bishop from one of the men at the mine, written last Tuesday, contains the information that the frequent shocks continued to be felt at the time the letter was written.

[Deseret Evening News; November 22, 1901]

MAMMOTH Earthquake Causes A Water Famine

Special Correspondence.

Mammoth, Nov. 24—

Mammoth's Water Famine

For the first time in its history this camp was last week threatened with a water famine. The scarcity of water, which was caused by the clogging of the Cherry Creek pipe line, ended last Wednesday, but while it lasted caused no little inconvenience to the people of Mammoth and Robinson. Almost all the water used in operating the mines in this section and also for culinary purposes comes from the large reservoir near Cherry Creek, about twenty miles to the westward and when this flow was stopped it caused the closing down for a short time of the Old

Colony, Ajax, Mammoth and Black Jack mines to say nothing of the inconvenience to the many families dependent upon the system. Some people attribute the clogging of the pipes to the recent earthquakes which have been felt more or less in all parts of the state. The main pipe was in some manner disconnected from the reservoir and then filled with rock and dirt. Immediately after the accident workmen were at work digging up and cleaning the pipes, but it required twelve hours time for the water to travel the distance from the pumping station to Mammoth and it is needless to say it was a welcome arrival.

[Deseret Evening News; November 25, 1901]

KOOSHAREM Peculiar Freaks Of The Recent Earthquake

Special Correspondence.

Koosharem, Sevier Co., Nov. 26—Excitement during the recent earthquake did not run as high among the people here as in some other places, although some houses were cracked, plastering fell, milk and water spilled, bottles were broken, clocks stopped and others that had stood still for some time began their ticking and have been running ever since. There is no record of any one being brought to his knees voluntarily or otherwise, but some that were already on their knees were brought to their feet in a hurry and ran out to see if the house was falling.

There is an electric belt here that the Indians call lightning, an old gentleman had just put it on and got into bed, his wife thought that the lightning was doing its work sure.

When the noise started and the houses began shaking, some people thought that the boys were shaking windows or trying to tip their houses over while others imagined wagons were running against their houses.

Very little damage was done in town. One mile east of town, however, there is a piece of meadow

land on the foothills sloping back from Otter creek that was considerably shaken up. It contains many small springs and in places is quite soft and boggy. Near the center of this pasture the earthquake played wild havoc. A spot from 50 to 100 yards wide and 300 to 400 yards long the earth is in a wonderful shape. In places it is sunken some four or five feet, other places have been thrown up six or eight feet high. Mounds of soft, boggy earth as large as two or three houses have been thrown up. At the foot of the hill there was a small irrigating canal. For a distance of forty yards the earth has slid down and covered the canal and Otter creeks, forming a very rough dump on the level meadow. Seven rods of the canal is covered to a depth of 12 feet, that is the narrowest place through the dump. One thing that seems curious is the fact that most of the sunken earth and that that has slid down the hill, and nearly all of the patch of willows, are right side up. The land is much cracked; some of the openings are three feet wide and all are filled with water.

[Deseret Evening News; November 29, 1901]

DR. J. E. TALMAGE ON UTAH EARTHQUAKES
Well Known Geologist, In An Interview To The "News," Sets Forth Scientific Reasons For
The Recent Disturbance And Tremors Which Visited This State Two Weeks Ago

In view of the earth tremors which were especially marked throughout the southern portion of Utah and were also felt distinctly in Salt Lake City on November 13, Dr. James E. Talmage was recently seen by a representative of the "News" to whom he gave an interesting interview.

It will be recalled that the well known geologist has on previous occasions expressed through the columns of the "News" that there is a fault in the geological strata of the Wasatch range of mountains and that in the opinion of eminent scientists Utah at any time may look for seismic disturbances more or less marked.

In reply to questions Dr. Talmage said in substance:

"I have read with more than ordinary interest the accounts of the recent earthquake disturbance in central and south-central Utah, but I fail to note any data sufficiently detailed and accurate to warrant a conclusion as to the location of the focus or place of origin of the earth wave. The disturbance was probably the most severe of its kind chronicled during the period of human occupancy in this region; nevertheless it was but an insignificant tremor compared with earthquake shocks of earlier times, the effects of which are apparent in the geological feature of certain parts of Utah.

"As to the conditions producing earthquakes in general the immediate cause of such a phenomenon is the arrival of an earth-wave or wave of translation propagated through the earth's crust. The ultimate or original cause producing the earth-wave in question is probably in most cases the slipping of a crust-block, whereby a jar is produced, and a wave of translation is started. The focus or starting-point of such a wave may be at considerable distance beneath the surface, and the wave which progresses outward from the focus in the form of concentric spheroids, finally breaks upon the surface, just as a water-wave started by the explosion of a stick of dynamite beneath the surface would break above, and then would appear as a series of surface waves moving outward in concentric circles or ellipses.

Profound Fault

"It has been pointed out that the western base of the Wasatch mountains and of the series of plateaus

following the range to the south is particularly liable to earth tremors and quakes. This inference rests upon the fact that the western face of the Wasatch range is determined by a profound fault or slip of the mountain mass upward with respect to the valley level, and that this slipping is probably not yet at an end. The fault referred to is characterized by one of the greatest "throws" or vertical displacements on record. The geologist of the United States geological survey have placed the throw at forty thousand feet. The steep and precipitous western face of the range as compared with the more gradual slopes on the eastern side is indicative of the crustal elevation by faulting. But beside the main fault by which the mountain face has been formed, there have occurred numerous secondary or minor slips proof of which is found in the breaks and displacements visible in the recent and loose deposits of gravel and the like along the base. The rough and broken face presented by an up-thrown fault is called a fault-escarpment, or more generally, a fault-scarp. Now, there are many small scarps of the kind along the Wasatch base, some of them so fresh as to suggest movement in the immediate past—no longer ago than the geological yesterday. This fresh appearance betokening recency is apparent in the scarps immediately north of Salt Lake City, in the region of the lime-kilns just east of the State road. Then again at the mouth of Ogden canyon the fault scarps are particularly well defined, and in the alluvial terraces there, new cracks appeared but a few months ago. These are probably due to the earth-tremor, scarcely to be called an earthquake, which preceded the slight crust-block displacement resulting in the break of the Utah Light and Power company's tunnel last January.

"The Great Basin region to the west, of which the Wasatch range forms the eastern rim is marked by many displaced crust-blocks, the upturned portions of which constitute the Basin ranges of mountains. These blocks are liable at any time to slip upon each other into positions of more stable equilibrium, and such a slip though it be represented by a vertical movement of but a few inches, will, in the case of a large block, produce a severe jar, which is propagated outward from the place of first disturbance as an earth wave.

Subject to Earthquakes

"We are therefore subject here to earthquakes or tremors from two distinct sources—first, from the Wasatch mass itself, which at any time may continue its upward movement by an additional slip; and second, from the settling of the crust blocks in the Basin to the west. A wave due to the first-named cause would travel west, north and south, producing disturbances in the Basin as far as its force was perceptible. A shock originating in the Basin might be felt here as a wave travelling eastward; it would probably not pass the Wasatch range, but as it struck the mountain mass, part would be reflected back, and the reflected wave meeting the incoming incident wave would add to the disturbance in these parts.

Salt Lake Threatened

"Grove Karl Gilbert of the U. S. Geological Survey, has repeatedly declared that the western base of the Wasatch is on an earthquake line, and that Salt Lake City is likely to suffer from earthquake shocks at any time.

"His reasoning is in part as follows: The many local fault scarps along the base of the range testify to crust-block shifting at intervals. The movement so indicated is connected with the rising of the range, which process has not yet ceased. This elevating action manifests itself as spasmodic lifts, the movement taking place as a succession of jerks. The lifting forces are cumulative in their action for any one place, that is to say their effects may be imperceptible until the forces have reached such a strength as to overturn the resistance of the crust, and then they manifest themselves by producing a sudden lift. Now, as Mr. Gilbert points out, the scarps exposed both north and south from the city are particularly fresh, telling of very recent yielding to the lifting forces; while immediately east of the city the scarps are older, and therefore, he infers that the next upward movement is likely to occur here—where the lifting forces has not produced a very recent slip.

Mr. Gilbert has published warnings of the impending catastrophe, in the newspapers of this city on the occasion of his several visits here, and he has embodied such in scientific journals of wide circulation.

Does Not Share Certainty

"Do not understand me as sharing the certainty felt by Mr. Gilbert as to prospective earthquakes in this immediate vicinity. I am, however, thoroughly convinced that the conditions throughout the Basin region, eastward to the base of the Wasatch mountains and the string of plateaus beyond the southern termination of the range, are particularly favorable to earthquake occurrences. True, but few disturbances beyond the grade of mere tremors have been chronicled since the settlement of the region; that period, however, covering but fifty-five years, is a very short interval when considered in connection with geological processes.

Southern Utah Included

"What I have said of the Wasatch range as the eastern rim of the basin in these parts applies in a general way to the plateaus southward. By the way, there is a very general error current here, by which the Wasatch mountains are regarded as a continuous range extending through the state, with an increasing westerly trend, and reaching the southwest corner of Utah. This mistaken conception of the Wasatch extent is due to the incorrect maps that have been long in use, most of which were copies of the old war department charts. These early charts represented a ridge or highland extending a back-bone through what is now the state of Utah, and but little study of the geological structure was undertaken when the maps were made. As a matter of fact the Wasatch range terminates on the south at a point but a few miles beyond Mount Nebo. The ridge continues it is true, but not as a mountain range; the plateaus there begin and of these the Wasatch plateau is the first.

Cause of Beaver Quake

"Recurring again to the recent earthquake in the vicinity of Beaver, the shock may have been due to a settling of crust-blocks in the basin westward in which case the wave came in toward the plateau mass commonly known as the Beaver mountains, but properly called the Tushar plateau; or the shock may have originated in a slip of adjustment involving part of the Tushar itself. As already stated I have not learned of accurate observations sufficient to justify a conclusion as to which of these possible causes was the true one, far less to indicate the location of the focus or point of origin."

[Deseret Evening News; November 30, 1901]

EARTHQUAKES FOR THE PAST MONTH Since Nov. 13 Marysvale District Visited By Daily Shocks Fallen Rocks Render Canyons Practically Impassable

An earthquake every day, sometimes three or four, is the story which comes from George T. Henry, the voluntary observer for Sevier county.

In his monthly report to L. H. Murdoch, director of the weather bureau here, he gives the startling information that since the never-to-be-forgotten thirteenth of November the earth has trembled daily, the roads up Bullion and Cottonwood canyons have been rendered almost impassable by the huge rocks that have fallen from the cliffs, and the waters in the creeks have increased in volume, nearly fifty per cent. At the time of his writing he states that the rumbling noise and trembling of the earth was still almost incessant.

He says:

"On Nov. 13th this station was visited by an earthquake. The first shock was experienced at 9:39 p.m. (standard time) and lasted for about ten (10) seconds. This was succeeded, at intervals, of from 5 to 30 minutes by shocks of less violence, the only one approaching the first, in severity, occurring at 5:31 a.m. The course of the vibrations was from southwest to northeast, and the duration of the shocks was from 3 to 5 seconds. There was no apparent wind, and the sky was clear. Between 9:39 p.m. and 5:31 a.m. about 35 distinct shocks were observed, though during all this time a slight and continuous tremor of the earth was experienced.

"There was no premonitory warning or indication of the quake. My house—in which I was reading at the time—seemed to be suddenly struck, as if by a very heavy body, at the southwest corner and apparently pushed over toward the northeast. This was immediately.

"The trees (trunks as well as branches) were swaying in every direction, though no air was stirring. One tall tree about nine feet from the south side of the house, was so much disturbed that the branches thrashed the roof for several seconds. By measurements subsequently made, the top of this tree must have moved through an arc of about 14 feet. The shocks have continued each day and night since the 13th to the present time; daily decreasing both in number and severity since the morning of the 14th.

The number has gradually lessened from about 25 on the 14th to three or four each day at the present time. They appear to occur chiefly between midnight and 6 a.m., but this may be on account of their being more easily recognized during the stillness of the night, than when engaged in the usual avocation of the day.

"On the river bottom, three miles east of this place, several cracks have been opened in the ground, varying from one to 18 inches in width, and from a few feet to three hundred feet in length. From some of the larger of these, fine white sand and water was ejected succeeded by a series of violent vertical movements quickly followed by a wave-like movement from southwest to northeast accompanied by a loud roaring sound, apparently at great depth, followed almost instantly by a deafening roar from Cottonwood canyon and the face of the mountains, caused by the loosening and subsequent movement of immense masses of rock from the high cliffs and ledges. At the same time the summit of the mountains was ablaze with light. During the latter part of the shock the sky was brilliant with meteors falling in all directions.

"Cattle and horses were greatly frightened, and bellowed and snorted piteously. After the first shock each succeeding shock was preceded by a loud subterranean rumbling, which seemed to travel very rapidly from southwest to northeast, the time of traveling from the north of Cottonwood canyon to my home (a distance of two and a half miles) being not more than two seconds. During the first shock I ran out of the house and so great was the movement of the ground that it was difficult to maintain my footing during the first shock. The roads up Bullion and Cottonwood canyons have been rendered almost impassable by the rock rolled down from the cliffs, some of these rocks being very large and from 15 to 20 tons in weight. Up in the canyons the rumbling noise, and trembling of the earth is still almost incessant. In Cottonwood, Bullion and Beaver creeks (on the east side of the range) the volume of water has increased since the earthquake from 30 to 50 percent."

[Deseret Evening News; December 6, 1901]

WHOLE STATE IS SHAKEN UP BY A SEVERE EARTHQUAKE Houses Damaged And People Thrown Out Of Bed In Southern Utah Shock Was Plainly Felt In Salt Lake—Vibrations Continued For Several Seconds

BEAVER, UTAH, Nov. 13—A severe earthquake shock visited Beaver this evening about 9:30. The court house and several residences were slightly damaged and many people were frightened. The vibrations seemed to be from east to west, and lasted several minutes.

Oasis, Utah, Nov. 13—A heavy earthquake shock was felt at this place at 9:37 p.m. and lasted for about twenty-five or thirty seconds. It seemed to travel from the northeast to southwest. People were frightened out of their beds and general excitement prevailed for a short time.

Manti, Nov. 13—At 10:40 tonight this city and district were visited by an alarming earthquake, the shock lasting several seconds. While no damage was done, it was of sufficient force to shake houses for miles around, and in several instances people were shaken out of bed and many of them came down town to learn what had happened. Not a few of the more timid, particularly among the women and children, were badly frightened

SALT LAKE BUILDINGS SHAKEN BY VIOLENT EARTHQUAKE TREMORS

The earthquake that jarred the central and southern portion of the state was felt in Salt Lake with such severity that those who felt it recalled the prophecy of the great geologist, Gilbert, who said that Salt Lake valley would some day be the center of disastrous earthquakes. The tremors which struck the city about 9:30 last night passed diagonally from southwest to northeast across the business portion of the city, shaking the tall buildings and swaying the suspended electric lights. The tremors presumably traveled across the city, but they were more manifest in the section of tall buildings.

In the Dooly building on the corner of West Temple and Second South streets, the upper floors were suddenly felt to tremble very perceptibly and the swinging electric lights were noticed to sway several inches along an east and west arc. The demonstrations lasted about a minute, it is said, and then all was quiet again.

Moved the Stove

At Hill's drug store, diagonally across the intersection of the streets, G. H. Barnes, a clerk, was

standing by the stove when he felt the building shake, and the stove, he says, was shifted slightly by the shaking. The waves of the disturbance seemed to continue their course diagonally across the block and were next felt at the University club, in the Jennings block.

H. B. Windsor, the insurance man, who was on the third floor in the University club, in describing the sensations of the quake said:

"I was sitting in a chair with my head leaning against the back, when I suddenly felt my head sway from side to side. The shaking stopped as suddenly as it began and I thought I 'had em,' but I felt the tremor again and, looking at the window, I saw the cords on the curtains swaying. Looking at Professor Eaton and Mr. Parsons, who were in the room, I saw that they had experienced the same shock."

The three men stated that they felt three or four distinct tremors, and then all was quiet.

The waves continued their course northeastward, and next manifested themselves at the Telephone building. The hello girls suddenly discovered the switch board trembling very perceptibly. Beyond there the tremors were not noticed, probably because there were no more tall buildings to indicate their progress.

Hotel Guests Alarmed

One of the places where the vibrations were most distinctly felt was at the Wey hotel. Several guests of the Knutsford were standing immediately in front of the Wey when they felt the earth tremble beneath their feet. A cab man and several others standing half a block away, in front of the Knutsford, felt nothing that would indicate an earthquake.

Within the Wey hotel the shock caused the swinging incandescent lamps to sway back and forth. Some alarm was occasioned among the guests, the majority of whom were about to retire. Mrs. I. M. Hollis of San Francisco is accustomed to earthquakes at home and immediately recognized the character of the disturbance. Other guests were dazed with surprise. Al Brown, the night clerk, was besieged with questioners who hurried from their rooms to ascertain what was the matter. Among those who felt the vibration and recognized it were Judge and Mrs. Bishop and Mr. and Mrs. B. Haywood of Brigham

City. The only persons who experienced alarm were those who felt the effects of an earthquake for the first time.

The vibration seemed to travel in a comparatively narrow path as buildings on either side of those where the tremors were felt did not experience any undue disturbance. The earthquake

waves are known to travel more freely through rock beds, and the supposed explanation of the northeasterly path of the disturbance through the city last night is that a comparatively narrow rock bed lies under that portion of the city.

[Salt Lake Herald; November 14, 1901]

LOSS FROM EARTHQUAKE MAY REACH \$100,000 Sevier County Suffers Severely From Disturbance And Beaver To Less Extent Narrow Escapes From Death Reported, But No Life Lost Many People Still Terror Stricken

The earthquake shocks which began on Wednesday evening at 9:30 o'clock continued at intervals during the night and nearly all of yesterday.

In this city there was but one shock and it not severe. Further north and east the shock was not felt.

In nearly every town of Sevier county there were recurring shocks for a period of about twenty hours. Much damage was done—possibly a total of \$100,000, it is estimated—by the disturbance in Sevier county alone. Richfield, Monroe, Elsinore, Central and Joseph all suffered severely.

Next to Sevier county, Beaver county, directly to the south is the greatest suffered. Considerable damage was done in the town of Beaver, less at Marysvale, and it is believed elsewhere in the county.

In Millard county there were three shocks, and many buildings damaged.

Parowan and Lund, at opposite ends of Iron county, were visited, but without disastrous result.

There were three shocks at Nephi in Juab county, Wednesday night, but no serious damage done.

In Sanpete county the shock was generally felt in all the towns from which reports have been had. but no harm was done to property, the only damage being to weak nerves.

The shocks visited practically the entire west half of the state, south of Salt Lake City.

No loss of life is reported, though several narrow escapes are related.

Richfield, Utah, Nov. 14—The first reports on the earthquake that swept over southern Utah yesterday morning gave a very faint idea of the extent of the convulsions or of the amount of damage done.

In all directions valuable buildings are wrecked and tottering ready to fall; people are driven from their homes; roads are blockaded; communication of all kinds cut off, and many valuable structures in the towns of this county will have to be torn down and rebuilt in whole or in part. Already it is known that damages to buildings will reach \$60,000, and it is expected that the loss will run to \$80,000 or \$100,000 when the reports are complete. Up to this time no fatalities have been reported, but many people escaped from under falling walls as if by a miracle.

Even yet the people are in terror; in many places they fled from their homes in the middle of the night. In a number of places meetings were being held when the shock came; the buildings began to rock and the brick and stone to fall about the ears of the people, when they became panic-stricken and jumped through the windows and fled into the night. The cattle and horses quivered with fright in their tracks; many people were convinced that the end of the world had come and prostrated themselves upon their faces on the ground.

Center of Disturbance

As near as can be ascertained at this early hour Mount Baldy and Mount Belnap, among the high peaks of Utah, constituted the center of the earthquake, and from there the shocks seemed to radiate in all directions. The greatest damage was done through the southern end of this county, and not a town or village escaped. In a number of places buildings were completely ruined, although the actual loss in any one place will not run over \$10,000. The towns that seem to have suffered most were Richfield, Monroe, Elsinore, Central and Joseph, but

it is too early to reach anything like a correct estimate. In these towns there is not a brick, adobe or stone building that is not more or less injured. The shocks continued all through Wednesday night and up to as late an hour as 1 o'clock this afternoon. Here in Richfield there were twenty distinct shocks.

In Richfield the greatest damage was done to the large tabernacle. It is badly shaken and cracked and the local architects state that it will take at least \$2,000 to repair the damages. In order to make it safe it is believed that it will be necessary to tear down a large portion of the walls. Many of the business houses were injured; the plaster was knocked off, the windows were broken and bottles and crockery knocked from the shelves and broken.

Babe's Narrow Escape

There was what may be termed a miraculous escape from death at the home of O. K. Salisbury, Jr. Two little babies were on the bed when the shock came; the gable end of the house fell in upon the children; the bed was covered with brick, adobes and mortar, but the babies did not receive a scratch.

In Monroe the beautiful residence of Bishop Orson Magley was damaged to the extent of \$500. Charles Windle's unfinished brick house was so badly damaged that the carpenter work will have to be done over and the walls rebuilt from the foundation. Large windows were broken in the stores and the buildings otherwise damaged to the extent of from \$25 to \$100 each. One of the main streams of the Monroe hot springs stopped flowing, while others of them are enjoying a largely increased flow of water.

The choir was practicing in the meeting house when the building began to rock on its foundation and it seemed to many that the end of the world had come. The panic among the people assembled was terrible. Several jumped through the windows and were badly cut, but no serious accidents are reported at this time.

Flight of Town Fathers

The town council was in session in the town hall. The first shock brought down the ceiling upon the heads of the councilors; they fled in disorder, leaving the building almost a complete wreck.

At Elsinore the Chris Jensen hotel was damaged to the extent of \$200 and the guests were driven into the street. The new school house that cost \$12,000 was badly cracked and a large part of it will have to be rebuilt. The Co-op store, Snyder's new building and a number of others were damaged from \$25 to

\$100 each. In the stores the glassware, crockery and bottled goods were knocked from the shelves and broken on the floor. The ceiling fell in at the home of Mrs. Petrina Kellett. She was in bed and was injured seriously.

The gable of Peter Christensen's house fell in. The house was occupied by Thomas Fouts and family. The falling wall crashed through the floor and into the family sleeping room. Fortunately no one was in bed and all escaped without injury. A number of the buildings in Elsinore will have to be torn down and built up from the foundation. The gable end of the meeting house fell out, but injured no one. Fred Lee's house was totally wrecked, and the opera house was badly twisted.

Panic Among Children

At Joseph the young people were in the school house at the time of the earthquake. The panic among the children was pitiful when the building began to shake and the walls to crack. By rare good fortune they all got out alive and none of them were seriously injured. The home of James H. Wells was injured to the extent of \$400, and that of J. A. Ross to the extent of \$100. Many others were injured to the extent of from \$25 to \$50.

At Annabella a large rock fell from an upper wall in Russell Kelley's new house and grazed the cheek of Mrs. Kelley. The walls of this building were thrown out of line fully four inches and much of the work will have to be done over.

In stope No. 5 and tunnel No. 3 of the Annie Laurie mine the dirt in the ceilings and walls started but no one was injured, and it is believed that no serious injury was done the mine. There was a landslide in the canyon so that the stage could not reach Kimberley today, and the mail was taken in on horses. In Clear Creek canyon the road was blocked and a great number of boulders will have to be removed before traffic can be resumed. Trainmen report several rails broken on the Rio Grande below Marysvale; one was bowed up and torn completely loose from its fastenings. Many landslides are reported in the roads in that vicinity. A number of telephone poles between Sevier and Kimberley were broken down and communication with Kimberley was entirely cut off. Many stores in Kimberley report damages amounting to from \$75 to \$100.

At Kimberley there were heavy shocks at 3, 5:30 and 9 o'clock this morning and at 1:10 this afternoon. At Marysvale and Gold Mountain at last reports shocks were still being felt this afternoon. The

reports from Wayne county are to the effect that the force of the shocks there were greatly decreased.

MARYSVALE CAMPED OUT
Citizens, Scared Into Street, Built Fires and
Enjoyed Themselves

Marysvale, Utah, Nov. 14—Following the severe earthquake shocks of last night there have been several less severe shocks felt today at this place and also at the towns of Junction and Circleville, south of here. Mother Earth does not seem to have settled down in this region yet and additional shocks are expected at any time. Today a shock was felt at 12:15 p.m., and again at 5:30 p.m. A shock was also felt at Sevier at the last named hour.

The most severe shock was felt at this place at about 9:30 last night. The duration was for about ten seconds and the convulsion seemed to travel from northeast to southwest. The Erickson house was badly wrecked, but no one was injured. The people were in terror, many of them rushed into the street from the tottering houses, built bonfires and camped in the streets all night long. A number of houses were badly shaken and few escaped without broken glass, but as far as known no one was badly injured.

FILLMORE AGITATED
Women in Garb of Night Fly From Totttering
Houses

Fillmore, Utah, Nov. 14—This place was visited by an earthquake last night that terrorized the people and wrought considerable damage to buildings, glassware and dishes. There were three distinct shocks at about 10:45, within a space of not less than three minutes. The earth seemed to have a waving motion and there was a roaring noise that added much to the terror of the experience. The worst shock came first; women ran screaming from their houses attired only in their night clothes and the bravest of the men showed unmistakable signs of fear. Windows were broken on all sides and many buildings were more or less injured, but so far as known no individual was hurt.

BEAVER BADLY SHAKEN
Shock Injures Many Buildings In This Town
Beaver, Utah, Nov. 14—A fearful earthquake shock visited this place at 9:33 last night, throwing people into a panic and doing great damage to buildings and stocks of merchandise. The court house, the meeting house, and the buildings of the

Beaver Branch academy are damaged most, but there is hardly a building in the place that was not injured.

The walls of the court house are badly cracked and damaged and the roof is wrecked by the failing chimneys. The whole building is rendered unsafe. The Beaver woolen mills are practically ruined and ready to tumble down. The entire front of the co-op store is ruined, not only the glass, but the pillars as well. The damage to this building will approximate \$4,000. Plate glass windows in other stores were broken and buildings otherwise damaged. George H. Fennemore lost about \$100 worth of drugs. At the Beaver Branch academy the Murdock building was badly damaged and the other buildings are more or less injured. The Mansfield-Murdock building is badly cracked in front, the Gem saloon is left in bad shape and the ceiling of the meeting house is a wreck. This building is badly shaken and will require many repairs. Hardly a building in the place escaped injury, but no intelligent estimate can be made at this time of the total loss. No one was seriously injured.

EPHRAIM VISITED
Tremors Made Bottle Dance and Terrified
Citizens

Ephraim, Nov. 14—A very severe earthquake shock was felt in this city last night. The shock commenced at just 9:40, and lasted about thirty seconds, but some of the scared citizens thought it lasted that many minutes. At H. P. Larsen's drug store and at the saloons it made the bottles on the shelves dance a jig. People in the drug store were afraid the house was coming down and ran for the street for safety. No damage resulted from the shock.

AT MT. PLEASANT
There Were Two Perceptible Shocks But No
Damage

Mt. Pleasant, Nov. 14—This city was given a severe jolting last evening by the earthquake. No damage was done, but many citizens were badly scared as it is the first one to visit this section in many years. The tremor lasted fully ten seconds and was so severe that upper stories of buildings rocked and swayed very perceptibly. About ten minutes after the first shock a second one of a more lengthy, shivering nature, passed over the town, lasting for about twenty seconds. There was no distinct shock to this one, but the trembling was very plainly felt.

TWO SHOCKS AT PAROWAN

Things Generally Shaken Up But No Harm Done

Parowan, Nov. 14—Two distinct earthquake shocks were felt here at 9:30 last night, lasting several seconds, shaking windows, dishes and stopping clocks. No damage was done.

CEDAR CITY SHAKEN

No One Hurt and Only Small Damage Done

Cedar City, Utah, Nov. 14—Cedar City was shaken with the worst earthquake in its history last night about 9:30. The first premonition was a low rumbling noise like that made by a windstorm and then came the shocks, three in number. The disturbance seemed to travel from the southwest to the northeast and the shock was most severe in the eastern part of the town. So far as known no one was seriously hurt, although many people were fearfully frightened. Buildings of all kinds were more or less shaken; windows were broken, plastering was knocked off and walls were cracked, but the damage is not serious.

NEED A SEISMOGRAPH

No Instrument In Utah to Record Earthquake Shocks

Now that Utah has passed through another of nature's convulsions, Director Murdoch of the weather bureau and others, scientifically inclined, are beginning to wonder why there is no instrument in Utah which records earthquake shocks. An effort will be made to have such an instrument, known as the seismograph, exposed in this city, so that the public may know how nearly it came to being annihilated. By rights, this work of keeping records on earthquakes belongs to the geological survey, but it is suggested that the state university might handle the seismograph. That such an instrument would not be altogether a superfluity is indicated by the prediction of Mr. Gilbert of the geological survey, that earthquakes will hereafter be of frequent recurrence in Utah.

Hot weather is the best time for disturbances of

this nature, but since three have shaken Utah in the past two years, and two of them have been in winter months, people are beginning to wonder where it will end. The last shock before that of Wednesday night was felt on Dec. 13 of last year at 6:50 o'clock in the morning. The wave seemed to come from the northwest and pass on southeast. Salt Lake City was jarred for a period of four seconds, the shock was felt distinctly by many citizens. Counties north of here were also affected.

The time before that, on Aug. 1, 1900, Utah and Juab counties were stirred up by the shock and it was felt also by people at Saltair and a few residents of this city. Down in the Tintic district, the miners underground were very much alarmed and after coming out of the mines many refused to return until morning, the shock having occurred at about midnight. The shaft in the Mammoth mine was so twisted by the earthquake that the cage could not be lowered below the 1,000-foot level.

Director Murdoch will not receive reports from his voluntary observers over the state until the end of the month, so that it will be impossible to learn exactly how far-reaching the latest shock was.

AT NEPHI

Nephi, Utah., Nov. 14—Three distinct earthquake shocks visited this city last night and were felt by people in all parts of the town. Many buildings were considerably shaken, some of the walls were cracked and in some cases windows were broken, but no serious damage is reported and no one was hurt. The people were greatly alarmed at the time.

SHOCK AT GRAND JUNCTION

Grand Junction, Colo., Nov. 14—At precisely 9:45 o'clock last evening this city experienced a severe earthquake shock. The shock was horizontal and fluctuated in waves all over the city. While no damage was done everyone was greatly frightened at the loud rattling of windows.

[Salt Lake Herald; November 15, 1901]

EARTHQUAKES

From the time, ages before the birth of Christ, when the Lord caused an earthquake that threw a wall down and killed 27,000 of Ben Hadad's Syrians who were fleeing from the Israelitish army, seismic disturbances have been of more or less frequent occurrence. In latter days the saint has perished with the sinner, the unbeliever with the follower of the faith. The sharp earthquakes within the last day or two in southern Utah, felt to a much less degree in Salt Lake, have awakened a lively interest in the subject.

Very eminent geologists have from time to time attempted to account for seismic phenomena, but the results are not entirely satisfactory. Earthquakes may be accounted for with confidence where they occur near active or partially extinct volcanoes, for in such cases it is easy to see that the molten lava, coming in contact with streams of water, produces steam which, in seeking an outlet, causes violent tremors of the earth's surface. The same result comes when gas is ignited.

Similar disturbances in the west are attributed to other causes. One of these is orogenic disruption. In mountain ranges there is extensive faulting. Mountain ranges consist of great blocks of stone raised one above the other and bounded by faults, a fault being a place where one undulation of the earth overlaps another, which all mining men frequently come across. Scientists claim that the settling down of the hills in these faults cause earthquakes in the locality.

Not one of them pretends to be able to predict

when the shock is coming or how long the waves will last. Not one has ever suggested a remedy. The only thing to do is to wait until you feel the "quake" and then run just as hard as you can to get out of any building you happen to be in. Seismic waves are liable to occur in any country, but especially, as has been stated, in regions near volcanoes and in mountainous places. Experience has shown, though, that they happen less frequently in northeastern North America, the east side of South America, the north of Asia and a large part of Africa.

The earthquake that occasioned the greatest loss of life in the nineteenth century occurred March 20, 1861, at Mendoza, South America, when 12,000 people perished. Nearly 2,000 died in a similar disturbance on the island of Ischia, near Naples, July 28, 1883. The most destructive earthquake of which there is any knowledge, aside from the one in which the Lord slew the Syrian hosts, occurred Nov. 1, 1755.

It was felt all over the section of the globe between Iceland on the north, Mogador in Morocco on the south, Teplitz in Bohemia on the east, and the West India islands on the west. There are no details as to the number of lives lost and the amount of property destroyed, but both are said to have been extremely great. This disturbance was the most prolonged on record. It began, as stated, on Nov. 1, 1755, and continued in a series of waves, with brief intermissions, until after the new year had dawned. [Salt Lake Herald; November 16, 1901]

FORTY DRUNKS, FIFTEEN FIGHTS AND AN EARTHQUAKE IN ONE NIGHT

C. L. Rader of Kimberley, manager of the Annie Laurie mine, spent a busy evening at his hotel last night describing to friends how it felt to pass through an earthquake. Some one had hazarded the remark that mining camps are not the sort of thing today that they were in the years of long ago, and Mr. Rader promptly arose to the occasion.

"What would you have in the line of the startling, strange or supernatural?" demanded Rader. "We had an experience that ought to satisfy any one last Wednesday night. Why, in the course of a few hours we had twelve earthquake shocks, forty drunks and fifteen fights. I hate to disappoint you, but in truth I must say that no one was killed. As it was,

however, most of us were satiated with excitement.

"As a result of the night's work on the part of nature, 150 feet of flume used for water power was destroyed, and for five days, bringing us up to the present, the assayer's office has been out of commission. Of course we could receive visitors of special note with eclat becoming the occasion by arranging for a poker playing and a gun fighting contest between a team of Chinamen and greasers on the street. For ordinary folks nature acts as a reception committee sufficient to pass around all the thrills we need."

[Salt Lake Herald; November 19, 1901]

FELT SIXTY SHOCKS

Salt Lake Man's Experience With The Earthquake

Mr. and Mrs. John Meyerhoffer have just received a letter from their son, Al Meyerhoffer, giving his experience in the earthquake of last week. Mr. Meyerhoffer was two miles south of Kimberley, on the Deer creek side of Gold Mountain, at the time, and was, therefore, in the zone of the greatest disturbance. He said the first shock on the night of the 13th came without warning and terrified himself and companions. The cabin in which the men were living rocked like a cradle; cans, the water bucket, saucepan and clock were knocked off the shelves. The men rushed out and yelled to the men in the other nearby camps till they were satisfied that all

were well. The next morning, the 14th, they experienced sixty shocks, while the rumbling in the bowels of the earth was almost continuous and sounded much like thunder in the air.

"I dread night to come," Mr. Meyerhoffer wrote, "as we have been getting light shocks all the time since the 13th till now, the 15th, and I suppose we will get a few tonight. I can say I dread bedtime, but I must go to bed early to get some rest. I have not rested to amount to anything since the first shock came, and my nerves are all unstrung."

[Salt Lake Herald; November 21, 1901]

HEAVY EARTHQUAKE SHAKES GROUND LOOSE

Richfield, Nov. 24—A curious result of the recent heavy shock of earthquake is reported from Koosharem. A strip of soil a mile and a half east of town and about 100 yards wide by 300 yards long slipped a distance of ninety feet.

The soil was of a boggy character and situated on a slope. It slid into Otter creek and dammed the stream, forming a small lake, which covered about

three acres. The sides of the slide were nearly parallel, but near the bottom on each side a strip of hard soil projected, and as the sod came rushing down, a strip of about two feet was shoved off both sides and piled into a heap about ten feet high.

Distinct shocks and tremors have been felt every day in various places since the big quake.

[Salt Lake Herald; November 25, 1901]

MARYSVALE PEOPLE STILL ENJOY FOUR EARTHQUAKE SHOCKS PER DAY

The local weather bureau is in receipt of a letter from George T. Henry, voluntary observer at Marysvale, in which some wonderful geological conditions are cited. Since the earthquake of Nov. 13, according to this letter, Marysvale has been visited by shocks of more or less severity every day and night, and there is no indication of a cessation of the disturbances.

Mr. Henry writes that on Nov. 13 as many as thirty-five distinct shocks were observed in twenty-four hours, and the earth was in a continuous tremor. It resulted in the movement of immense masses of rock in Cottonwood canyon among the cliffs, accompanied by deafening roars. At the same time, the observer writes, the summit of the mountains was ablaze and the sky was brilliant with meteors falling

in all directions. A loud subterranean rumbling is also described in the letter, and it is stated that pedestrians maintained their footing with the utmost difficulty during the first shock, which was the most severe. Although there was no air stirring, trees swayed to and fro in a very unusual manner.

Since Nov. 13 the number of shocks per day has lessened from twenty-five on the 14th to three or four daily at the present time. West of Marysvale on the river bottom, several cracks have been opened in the earth's surface from one to eighteen inches in width, and some of them as long as 300 feet. A fine white sand and water was ejected from some of these, and in many quarters roads are impassable on account of rocks that have rolled down from the mountain tops. [Salt Lake Herald; December 7, 1901]

SALT LAKE SHAKEN UP

An Earthquake Makes The City Tremble

Three Shocks Experienced

**Some of the Larger Structures of the City Shaken So That Occupants Were Alarmed—
Guests at the Wey Hotel Felt the Waves Most Distinctly, and Started From Their Rooms With a View to
Seeking Safety—Felt at Grand Theater and Hooper Building**

An earthquake, though it was but a light one, visited Salt Lake last night. It came between 9:30 and 9:35. In several large buildings in the center of the city the oscillations were felt and in one building there was something of a sensation. The earthquake seemed to travel from southwest toward the northeast, and was in three waves, each lasting a few seconds, the second being more marked than the first, and the third more than the second.

The building where the earthquake was noticed most, was the Wey hotel, the effects being more striking in the upper stories. A series of slight vibrations was noticed in the second story by the employees and some of the guests; but in the third story the guests rushed out into the hallway not knowing what was going to happen next. When the wave came along, Mr. and Mrs. John McVicker, who occupy the central front room in the third story, were startled to note the front walls trembling, the incandescent lamps quivering, and the chairs in which they were seated swaying to and fro. In the adjoining room to the south, Mrs. A. C. Bishop was astonished to feel the floor shaky under her feet, and at seeing moveable objects about the room become temporarily unsteady. Mrs. Ben Heywood in another

front room, had suddenly her experience in California earthquakes brought up before her mind by the shaking of the walls, and the unsteadiness of the lamps and chairs, while Mrs. Hollis of San Francisco rushed out from her apartment adjoining, exclaiming that for the moment she thought she was back on the coast, and wanting to know the extent of the average Utah earthquake. Assistant Postmaster Walker felt his room rock.

The attendants at the front of the Grand theater felt the disturbance, and as there was no street car in sight, and the play inside had not reached the liveliest scene, they concluded it was a genuine and not a theatrical earthquake. In the Hooper building, tenants on the top floor felt the seismic vibrations, which so exercised them that they proceeded to acquaint those outside with the fact. At the Knutsford hotel, the electric fan in the barroom was started, the lamps shook and the glasses jingled, greatly disturbing the barkeeper. But there was nothing noticed at the Manitou hotel adjoining. It is about two years since the city was visited by its last previous earthquake.

[Salt Lake Tribune; November 14, 1901]

SOUTHERN UTAH SHAKEN

Severe Earthquake Shock Experienced At Elsinore

The Shock Lasted About Ten Seconds—

A Number of Brick and Adobe Buildings Were Badly Damaged

Elsinore, Utah, Nov. 13—Quite an earthquake shock was experienced here this evening at about 9:45, lasting about ten seconds. A number of brick and adobe buildings were badly damaged, but no one was hurt, so far as learned.

CLOCKS STOP AT LUND

Cars on the Railroad Track Rocked by Disturbance

Lund, Utah, Nov. 13—An earthquake shock was felt here at 9:32 this evening, which lasted thirty seconds. The shock was so well defined that it stopped clocks and rocked cars on the railroad track.

[Salt Lake Tribune; November 14, 1901]

UTAH TOWNS SHAKEN

Southern Part Of State Damaged By Seismic Disturbance Wednesday Night At Beaver the Courthouse Is Wrecked and the Murdock Building at the Brigham Young Academy Branch School Completely Shattered—Panic Among People at Several Places

Beaver, Utah, Nov. 14—The oldest inhabitant has no recollection of such a shaking up as was given this place last night beginning at 9:35 p.m. At that hour, a noise of thunder, accompanied with the sound of rock being crushed under great pressure, was heard. Then light tremblings of the earth. The trembling steadily grew stronger until at the end of four or five seconds, the earth seemed to heave and buildings rocked and pitched as ships during a storm.

Many who had retired for the night were thrown forcibly from their beds. One man on the street clung to a fence to keep from being thrown down to the ground. Most of the large buildings in the city are damaged considerably.

The courthouse is wrecked, the roof is crushed in by falling chimneys and the walls cracked in twenty-five places.

The large plate-glass windows in Cline's store were shattered into fragments, and the building cracked in a dozen places.

The large stone buildings at the B. Y. A. branch school are all more or less damaged, the Murdock building in particular being completely shattered. The scholars living at the school rushed panic-stricken from their apartments, and huddled like sheep in Music hall, the rest of the night.

The Beaver Woolen mills are almost collapsed.

The entire front of the Co-op store will have to be rebuilt at a cost of perhaps \$4000.

George H. Fennemore, lost about \$100 in drugs and fixtures.

The building occupied by the Beaver Drug company, is much injured by the walls cracking.

The meeting-house has the ceiling badly wrecked, and a large quantity of the plaster has fallen and the chimneys will have to be rebuilt.

The entire animal life of the neighborhood seemed to be demoralized, horses ran up and down all night, cattle lowed and the chickens squawked.

The greater part of the population did not return to bed after the first shock, but sat the night out in abject terror, as if it were Doomsday.

Eighteen shocks were experienced in all. The first, a very severe one, at about 9:35 p.m. and others at intervals until about 5:30 this morning, when

another considerable shock occurred. The vibrations during each shock, were very rapid and seemed to travel from west to east, with a rotary motion to the south.

DAMAGE AT RICHFIELD

Four Distinct Shocks Experienced and Several Buildings Injured

Richfield, Nov. 14—There was a severe earthquake of four distinct shocks felt here at 9:28 last night. The plaster was rattled off the walls of several buildings, and many people rushed onto the street, screaming.

The Tabernacle spire could, in the darkness, be seen to totter back and forth, and it was creaking several seconds after the shocks were past.

Several persons, who have experienced earthquakes say that the shocks came with more of a "jerking" motion than they have ever felt before in like seismic commotions.

At the home of O. K. Salisbury, Jr., the adobe lining of the gable of his brick house was shaken down. It fell upon the bed where his sleeping baby lay, but fortunately missed the child. Had it been a few inches further toward the center, the child would surely have been crushed to death.

TWO SHOCKS AT ST. GEORGE

Buildings Were Shaken, but No Particular Damage Done

St. George, Nov. 14—A heavy shock of earthquake passed under St. George last night at 9:30 o'clock, traveling from north to south. Houses rocked perceptibly, dishes rattled, plaster fell, and considerable excitement was manifest in different parts of the town. There were two distinct shocks, one following directly after the other. No damage was done.

UPHEAVAL IN CEDAR CITY

Number of People Prostrated by the Shock

Cedar City, Nov. 14—A severe shock of earthquake was felt here about 9:30 last night as in all the surrounding country. The first indication was a low rumbling sound as of a mighty wind, then

followed a sudden terrible shaking up as of a mammoth upheaval. Windows rattled as if by some one striking with timbers. Cupboards rattled and some plaster fell in places. Many are almost prostrated who are of a nervous temperament. No damage as yet reported.

The shock seemed to come from the southwest to northeast. The eastern part of town felt it more severely than the western. Frequent shocks have been felt in this locality, but none so severe as this last.

After the first heavy roar there were two lighter ones in rapid succession, lasting in all six seconds of time.

MONROE IS DAMAGED

Several Buildings Cracked From Cellar to Garret

Monroe, Utah, Nov. 14—A severe earthquake was experienced here at 9:35 o'clock last night, partly wrecking Orson Magleby's store. The damage will amount to about \$200. Mr. Magleby's residence was also cracked from cellar to garret, doing in the neighborhood of \$500 worth of damage. The windows in both store and residence were depleted of glass. Several other residences were likewise treated.

The Cooper Springs, where the bathhouse is located, has increased its flow about one-fourth. Lisonbee Spring, at the dipping tank, is completely shut off from its flow.

TOQUERVILLE SHAKES

But Little Damage Done,

Although People Were Frightened

Toquerville, Nov. 14—Last night before 10 o'clock Toquerville was visited by the shock of an earthquake. No damage was done, but frame houses shook, windows and dishes rattled, and some of the people badly scared.

DOWN AT KANAB

Several Brick Buildings Damaged by the Upheaval

Kanab, Utah, Nov. 14—A heavy earthquake here at 9:30 o'clock last night caused clocks to stop, dishes to fall and cracked some brick buildings. It lasted about ten seconds.

PAROWAN HIT HARD

Two Shocks Were Felt but No Damage Done

Parowan, Utah, Nov. 14—Two earthquake shocks were felt here at 9:30 last night. Houses were shaken quite badly. The shock seemed to be general

in southern Utah.

IN SEVIER COUNTY TOWNS

Damage by Earthquake Placed at \$60,000 to \$100,000

Richfield, Nov. 14—The reports of the earthquake as they have been gathered during the day show that it was much more severe and did a great deal more damage than was at first anticipated.

At Marysvale the shock completely ruined the house of Mr. Erickson and did so much other damage that people were afraid to sleep in the houses, and the larger part of the population built fires and camped out in the street.

Elsinore seems to have suffered most damage of any town in the county. All of the buildings were made of adobes, rock or brick, and practically every house in the town is damaged to a greater or lesser extent. In the house owned by Peter Christensen and occupied by Thomas Fouts and family the gable end was shaken in and crashed through the upstairs floor and the downstairs ceiling into the family bedroom. Fortunately no members of the family were there or all would have been killed. Mrs. Katrina Skellet, an old lady who had retired for the night, was badly bruised by the ceiling of her home falling in upon her. Her injuries are not serious, but the house was nearly ruined.

The large opera-house at Elsinore, a frame building, was badly twisted and will not be safe until it is remodeled. The home of Fred Lee, valued at \$300, was entirely ruined and will have to be torn down, nothing but the foundation being of value. The hotel belonging to Chris Jensen will have to be partially torn down. The loss was about \$250.

The stone building belonging to the Elsinore Co-op was badly cracked and it will cost some \$250 to \$300 to put it in repair. There was also about \$50 worth of damage to stock.

Jonas Outlund, another merchant, had \$30 worth of goods ruined and such other losses will make the entire damage to the buildings of the town from \$8,000 to \$10,000, and there is not a building in the entire town that is considered safe until it has undergone extensive repairs.

At Central the front of Postmaster Joseph R. Hooton's residence was thrown forward between three and four inches and the entire building will have to be torn down and rebuilt before it can be considered safe. The residence of B. H. Greenwood and several others were severely wrecked.

In Annabel there was but one building that was in any way seriously injured. This was the new stone residence of Russel Kelly. Several of the rocks came crashing down into the house and members of the family barely escaped crushing.

At Sigard and Vermillion there was no damage to speak of. The shock reached over it into Wayne county, but was much lighter there than here. Conservative men estimate the loss to the people of Sevier county at from \$60,000 to \$100,000, largely in the damage to buildings.

STORIES OF EARTHQUAKE **Experiences of Salt Lake** **People in Southern Country**

A. W. Stevenson returned from Marysvale last night with the report that the earthquake was very severe in that locality. The hotel was rattled perceptibly and things were knocked off shelves. It was about 9:45 he thought and from 10 p.m. to 6 a.m. yesterday there were thirty-eight distinct vibrations. At Kimberly the goods in the store were thrown on the floor and the road to Kimberly has been blocked for a distance of a mile. Along the Sevier river this side of Marysvale was a crack in the earth 300 yards long and eight inches wide and a rail was broken in five places. The track was sunk considerably. Mr. Stevenson said that no injuries had resulted as far as he knew, but it was a pretty severe shaking and he doesn't want to repeat the experience.

Col. Henry Altman was one of the Salt Lake men who experienced the earthquake of Wednesday evening, but not here. He was in Milford, where the shock came at about 9:45 o'clock, and made things lively in the little town for some time. People in the Williams hotel, where Col. Altman was stopping, ran frantically into the street, where people from adjoining stores and houses quickly congregated. At McKeon's store across from the hotel canned goods from the shelves were piled upon the floor, while bits of chinaware lying here and there told more plainly than words that there really had been an earthquake. The caboos of one of the freight trains standing at the depot was rocked so violently as to arouse the brakeman and conductor from their slumbers. The first thought that struck them was that the caboos had started down the track of its own volition, and instinctively they ran for the door to put on the brakes.

OTHER RECENT EARTHQUAKES **How Sections of Utah Were Shaken Up** **in 1899 and 1900**

In view of Wednesday night's earthquake, brief reference to comparatively recent disturbances of this nature will be of interest. On the morning of December 13, 1899, at 6:50, an earthquake was distinctly felt in Weber, Morgan, Davis and Salt Lake counties, the wave traveling from north-northwest to south-southeast, and lasting three or four seconds. The rumbling awoke persons asleep at the time, but no damage was done.

On August 1, 1900, at 12:45 a.m., there was a severe earthquake over parts of Utah and Juab counties, and was noticed in this city and on the south shore of the lake. At Tintic miners underground were alarmed, some coming to the surface and refusing to return until morning. The deep shaft of the Mammoth was so twisted that the cage could not be dropped below the 1600-foot level. At Goshen dishes were broken and plaster was knocked from the walls, ceilings were cracked and one chimney was turned around. At Santaquin people were thrown from their beds, while others were slightly injured by being thrown against walls. One adobe-lined house was split in two.

CAVE-IN IN MINE **Seismic Disturbance Causes Damage in the** **Annie Laurie**

Richfield, Utah, Nov. 14—News from Kimberly is that as a result of the earthquake last night a cave-in occurred on No. 5 stope in No. 3 tunnel of the Annie Laurie gold mine.

All of the buildings in Kimberly are constructed of wood, consequently they were not seriously damaged, though many of the people stayed up all night, fearing to go to bed.

ALMOST A PANIC **People at Church Social in Salina Frightened**

Salina, Utah, Nov. 14—At 9:45 o'clock last evening Salina experienced a severe shock of earthquake. It apparently came from the south and lasted about one-half minute, but little damage being done. It shook chickens off their roosts, started dogs to barking and cattle to lowing and created considerable excitement, nearly causing a panic at a sociable being held at Peterson's hall by the Ladies' Help club.

NO DAMAGE AT NEPHI

Nephi, Utah, Nov. 14—The earthquake shock was perceptibly felt here last night at 9:35. No

damage was done.

[Salt Lake Tribune; November 15, 1901]

ECHOES OF THE EARTHQUAKE The Southern Part Of The State Was Everywhere Shaken

Parowan, Nov. 13—At 9:45 tonight an earthquake passed over this place that shook things up pretty well. It made things rattle on the shelves, and the buildings rocked. It is thought the vibration traveled from southwest to northeast.

AT DESERET

Deseret, Nov. 14—On the night of the 13th, at 9:30 p.m., the citizens of this place were startled by a heavy rumbling sound, followed immediately by a rattling of doors and windows. Soon the houses were swaying like tree tops. Some of the citizens ran to their neighbors, others ran out to see what had struck their houses. Chickens fell from their roosts; clocks toppled over; hanging lamps swung to and fro and general excitement prevailed. The shock lasted about thirty seconds. It is said by old settlers that the shock was as heavy as ever has been experienced in this place.

CIRCLEVILLE

Circleville, Nov. 14—The equilibrium of our citizens was disturbed last night by an earthquake. About 10 o'clock we were visited by a shock that shook the houses from the very foundation and displaced many articles from shelves and cupboards. Many people were so frightened that they fainted, while others ran through the streets screaming. During the night we were visited by at least a dozen lighter shocks. About ten years ago our town experienced one, but not nearly so hard.

AT AURORA

Aurora, Nov. 14—The earthquake last night did some damage to property. In the new stone school house the plastering was shaken down and cracked in many places, even the stone walls being cracked. Many of the people report buildings being cracked. It was quite laughable the ideas some had when they first felt the shock. Not being accustomed to earthquakes, some thought it was a visitation of

Providence sent only to them. They were surprised this morning to find others had received it also.

COYOTO SHAKEN

Coyoto, Nov. 14—A heavy shock of earthquake was felt here last night between 9 and 10 p.m. It was one of the heaviest shocks ever felt in this section, and its duration was fully one minute. It appeared to come from west to east. At this writing no damage has been reported.

SEVERE AT JUNCTION

Junction, Nov. 14—The quiet of our village was disturbed last night at 9:47 by the most severe earthquake ever known in this section. At that hour the people had retired, or were in the act of retiring, when a rumbling sound was heard, followed almost instantly by vibrations of the earth that caused houses to rock like vessels on a rolling sea. Dishes rattled, doors swung open, clocks stopped and the tops of several chimneys were demolished, causing intense excitement among the inhabitants. An adobe house belonging to Mrs. Mary McIntosh was almost rent in twain, and our large brick meeting-house has one of its gables moved out of place about four inches, making it very dangerous for occupancy.

Reports from Circleville, Kingston and Marysvale show similar conditions in those places. The course of the earthquake seemed to be from the southwest to the northeast. Light shocks were felt all night, and the last, which was the hardest of all except the first, came at 5:45 this morning.

AT FERRON

Ferron, Emery County, Nov. 14—Yesterday evening at 9:45 Ferron was visited by quite a violent shock of earthquake, which lasted for nearly a minute. Dishes rattled and stoves played a tune. People who had gone to bed and were asleep were awakened by the shock.

[Salt Lake Tribune; November 16, 1901]

THE EARTHQUAKE AT LOA

Loa, Nov. 14—The town of Loa was severely shaken by an earthquake at about 9:30 o'clock last night. There were at least three (some say more) distinct waves, the commotion lasting upward of ten seconds. Houses were rocked like cradles, but no

damage was done except to the nervous anatomy of many people. The shock was felt also in Lyman and other parts of the valley.

[Salt Lake Tribune; November 18, 1901]

POKER PLAYERS PRAYED Earthquake In Southern Utah Scared Them

Threw Hands Into the Deck and Sent Up Earnest Supplication—Then Resumed the Game

James Long, superintendent of the June Bug group of mining properties in the Gold mountain country, is in Salt Lake. Mr. Long was at Kimberley a few days ago when the earthquake occurred. "That was the real center of the disturbance," said he yesterday, and it was no laughing matter, either. The first and severest shock was at 9:30 in the evening, and there were a number of smaller ones during the night. It was a regular upheaval, and had the houses been of brick they could not have stood. I was

playing hearts with two others in the back room of a saloon at the time. The game was adjourned and we all ran out. I admit I ran, and I ran hard. I would have run farther, but I did not know where to run to. I am told on good authority that four men were engaged in a poker game at the time at Monroe, and that the meeting was at once resolved into the most enthusiastic prayer meeting ever held in southern Utah. Later they resumed the game."

[Salt Lake Tribune; November 18, 1901]

EARTHQUAKE SHOCKS DAILY

Beaver, Utah, Nov. 20—Earthquakes are still of daily occurrence but are very light and no damage

has been done since the 13th.

[Salt Lake Tribune; November 21, 1901]

MATTERS IN SEVIER An Earth Slide

Richfield, Nov. 24—J. C. Madsen of Koosharem was in Richfield yesterday. He told of a peculiar slide of earth that occurred one and a half miles east of there during the recent earthquake. In a piece of bottom land known as the cow bottom, a piece of hog land 100 yards wide and 300 yards long on the east side of the valley, that laid on a slope, was broken

loose by the jar and slipped a distance of ninety feet. It carried a section of a canal with it and dammed up Otter creek, creating a miniature lake of about three acres above it. The depth of the moving sod and mud cannot be ascertained.

[Salt Lake Tribune; November 25, 1901]

EARTHQUAKE INCREASES WATER

Marysvale, Nov. 24—Farmers on City creek and Baldwin creek, in Piute county, are hoping and praying that the results of the recent earthquake on those streams will be permanent. The volume of water now flowing in each of those streams is nearly twice what it was before the big shake. Users of water from City creek believe their increased flow

was from Puffer's lake, and those using water from Bullion creek believe they are now receiving the water that before the earthquake ran down Fish creek, on Gold mountain, which has diminished in its flow since the earthquake.

[Salt Lake Tribune; November 26, 1901]

EARTHQUAKES AT MARYSVALE

Neighborhood Has Been Visited By Shocks Almost Continuously Since November 13th, With No Indication Of Cessation

George T. Henry, voluntary observer at Marysvale, Utah, reports to the local weather bureau some wonderful geological conditions. According to the information furnished by Mr. Henry, Marysvale has been visited daily and nightly by earthquakes since the earthquake of November 13th, with no indication of cessation. On November 13th as many as thirty-five distinct shocks were felt in twenty-four hours, and the earth seemed to be in a continuous tremor. Immense masses of rock in Cottonwood canyon were disturbed, while the summits of the mountains were ablaze and the sky was brilliant with meteors. The shocks were accompanied by subterranean rumbling. Pedestrians maintained their

equilibrium with difficulty and trees swayed to and fro.

On the following day twenty-five shocks were felt, since which time the number has decreased to two or three a day at the present time. On the river bottom east of town several cracks in the earth's surface, from one to eighteen inches in width, have been discovered, some of them being 300 feet long. Fine white sand and water was emitted from some of these cracks. In several instances the roads in the vicinity of Marysvale have been made impassable by the rocks that have rolled down them from the mountain tops.

[Salt Lake Tribune; December 7, 1901]

EARTHQUAKE IN UTAH DID MUCH DAMAGE
Chimneys Were Topped Over And Plate Glass Windows Shattered By The Shocks
Mormon Meeting House, Court House, And Academy In Beaver City Badly
Shaken—Rocking Of The Earth Occurs Again This Morning—
Large Cracks Opened In Brick Buildings And Plastering Displaced

Salt Lake City, Utah, Nov. 14—Advices received today from the more remote sections of southern and south-western Utah show that last night's earthquake shock was very heavy in some localities, and considerable damage was done. The shock was apparently the heaviest at Beaver City, where the Mormon meeting house, the court house and the Beaver academy were badly damaged, especially the latter building, whose walls show great cracks as a result of the shock. Chimneys were toppled over and plate glass all over the town was shattered. Hardly a house in the town escaped damage, many of them being badly cracked. No fatalities are reported. Another slight shock was felt at Beaver this morning. At Cedar City, Kanab and Parowan the shock is

reported as being very severe. Plastering was shaken from walls, dishes were broken and brick buildings cracked.

Elsinore, Utah, Nov. 13—Quite an earthquake shock was experienced here this evening at about 9:15 lasting about ten seconds. A number of brick and adobe buildings were badly damaged, but no one was hurt, so far as learned.

Lund, Utah, Nov. 13—An earthquake shock was felt here at 9:32 this evening, which lasted thirty seconds. The shock was so well defined that it stopped clocks and rocked cars on the railroad tracks. [The Standard (Ogden); November 14, 1901]