

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

An Evaluation of the Effects of the
October 31, 1895, Charleston, Missouri, Earthquake

By
Margaret G. Hopper
and
S.T. Algermissen

Open-File Report 80-778

1980

This report is preliminary and has not been edited or reviewed for conformity with U.S. Geological Survey standards and nomenclature.

AN EVALUATION OF THE EFFECTS OF THE
OCTOBER 31, 1895, CHARLESTON, MISSOURI, EARTHQUAKE

By

Margaret G. Hopper and S. T. Algermissen

INTRODUCTION

The October 31, 1895, earthquake near Charleston, Missouri, is one of the largest earthquakes known to have occurred in southeast Missouri. Only the long sequence of shocks during 1811 and 1812 produced earthquakes of greater magnitude than the 1895 event. The effects of the 1895 Charleston earthquake presented in this report have been reevaluated as part of a larger investigation of the attenuation of seismic waves in the Mississippi Valley. This earthquake is of particular interest since: (1) it had a magnitude (mb) of 6.2 (Nuttli, 1974) and thus is a large earthquake for this part of United States; (2) its effects were relatively well observed compared with the 1811-1812 sequence; and (3) the construction practices and spatial distribution of buildings had improved substantially since 1812. Unreinforced brick masonry was widely used by the late 1800's and buildings of this type are distributed widely over the midwest.

SOURCES OF DATA

The data used are a compilation of all the intensity information available to us on the 1895 earthquake. Data have been obtained from both primary sources (newspapers) and secondary sources (Coffman and von Hake, etc.). All of the reports presented herein (including duplicates in some cases) have been organized by state abbreviation, city, and intensity.

In addition to the evaluation of the intensity at a given site, in many cases the site itself had to be located. Modern cities were located by a computer program which searched a zip code list and provided latitudes and longitudes for each city. Older, very small, and no-longer-existing cities had to be found by other means. Three turn-of-the-century atlases were used. A number of towns which were not actually shown on these maps were listed in the atlas indexes, along with their counties. Quite a few more were found in a reprint of the 1876 Bullinger's Postal and Shippers Guide, which gave county or post office. Many of these were then found on modern U.S. Geological Survey topographic two-degree sheets. The location procedures for the difficult sites are shown in brackets with the data for those sites, along with any assumed changes in spelling, in the listing at the end of this report. The four sites that could not be found are

similarly noted.

DISCUSSION

Modified Mercalli intensities were assigned to all the sites for which information was found. A maximum intensity of VIII, was assigned at seven places (Charleston, Puxico, and Taylor, MO; Alton and Cairo, IL; Princeton, IN; and Paducah, KY.) At Charleston "every building in the commercial block was damaged...and many walls were cracked" (Heinrich, 1941), and several plate-glass windows were broken and chimneys thrown down (Perdue, 1895). At Cairo "the number of chimneys shaken down in the city probably runs into the hundreds" (Marvin, 1895). Intensity VII's were assigned to twelve sites (Gadsden, AL; Albion, Grand Tower, Grayville, Quincy, and Trenton, IL; Brazil, and Liberty, IN; Columbus, KY; and Cape Girardeau and Saint Charles, MO). In addition, 21 sites were assigned intensity VI, 52 intensity V, 25 intensity IV, 27 intensity III, 2 intensity II, 6 intensity I, 191 "felt"s (F's), 16 "heavy"s, 5 "light"s, and 3 "sand blows"s. Only two "not felt" reports were obtained, one, from Abilene, Texas, and one from Denver, Colorado. In each case the "not felt" was inferred from lack of coverage in local newspapers.

A few comments are necessary here about how some of the intensities were assigned. The Monthly Weather Review (Marvin, 1895) included a very long list of observed times at various locations. There was no additional information

with these reports and no distinction could be made between them. These were all assumed to be "felt" reports and plotted as "F"'s. One-word or very poor descriptions were not given numerical intensities; instead, such words as "slight", "mild", and "moderate" were called "light" (plotted on plate 1 as "L") while "heavy", "severe", and "violent", were called "heavy" (plotted as "H"). A number of the reports concerned places where liquefaction occurred, (plotted as "Q"); sandblows were reported near Bertrand, Big Lake, and Charleston, Missouri, and a new lake was formed south of Henson Lake, Missouri. Note, however, that all of these places are within the intensity-VIII contour. The evidence of liquefaction was not used to assign intensities since it has been known for many years that liquefaction can occur at rather low levels of ground shaking (equivalent to M.M. intensity V or perhaps lower). Perdue (1895) cites a number of reports of increased flow of water or gas and of water in rivers and creeks rising (Albion, Bluffton, Columbia City, Marion, Pigeon Creek, and Shelbyville, IN). These were assumed to be long-period effects and were assigned intensity I's. Few other reports were assigned intensities of either II or I. Only four (of 373) sites could not be found at all and were not plotted on the map (Alwood, IL, and Gordonsville, Vilas, and Zeitonia, MO).

The maximum intensity assigned to any report was VIII. Nuttli (1974) lists this earthquake as having a maximum intensity of IX and finds $m(b)=6.2$ based on the intensity fall-off with distance. He assigned Bertrand, Missouri, intensity IX (because of sandblows) and Charleston, Missouri, VIII-IX. The Charleston, Missouri, epicenter (37.0N, 89.4W) given by Nuttli (1974) and by Stover and others (1979) agrees very well with our findings and has not been changed. The epicenter is marked on plate 1 with a star.

The areal extent of the felt area as interpreted by various authors varies considerably. Points for which we have reliable intensities reach from Chatham, Ontario (60 km east of Detroit) to New Orleans, Louisiana, and from Washington, D.C. to Wichita, Kansas. To the southeast there is a lack of data from the entire state of Virginia and most of West Virginia, although there are reports from Georgia and Pennsylvania. Marvin (1895) says the earthquake was felt from Canada to Louisiana and Georgia and from North Carolina and the District of Columbia to Nebraska and New Mexico. No specific reports were found from New Mexico. Our felt area of 2,500,000 square kilometers agrees well with Coffman and von Hake (1973) and Moneymaker (1955) who give one million square miles (2,600,000 square kilometers), but is considerably larger than Perdue's (1895) estimate of 400,000 square miles (one million square kilometers).

The data presented in this report have been plotted on a 1:2,500,000-scale Albers equal-area base map (see plate 1).

ACKNOWLEDGEMENTS

Original newspaper accounts and some of the other sources for this earthquake were loaned to us by Otto W. Nuttli.

The zip code list from which the computer was given latitudes and longitudes for the cities was provided by Carl W. Stover.

The computer program which plotted the data was modified from a plotting program obtained from Stanley L. Hansen.

INTENSITY REPORTS FOR EARTHQUAKE OF
OCTOBER 31, 1895, CHARLESTON, MISSOURI

This listing contains all of the information gathered about the 1895 earthquake. Entries are alphabetized by two-letter state abbreviation and by town name. Towns discussed in more than one source have multiple entries. The Modified Mercalli intensity assigned to each entry is shown immediately after the town name. Some entries are not assigned an intensity, but rather called "felt", "light", "heavy", or "sandblows." After the intensity, the reference and the data are given. Author's comments appear in brackets.

- AL BIRMINGHAM, felt, Marvin, Felt
AL GADSDEN, 7, Saint Louis Post-Dispatch 1895 Oct. 31, "Earthquake shock here this morning, wrecking several houses, injuring several people."
AL MADISON, felt, Marvin, Felt
AL MONTGOMERY, 4, Marvin, "Light earthquake felt in the city at 6.30 a.m. today; windows rattled and beds were shaken; no damage. The reports from different towns in the State show the earthquake to have been felt throughout the State."
AL TUSCALOOSA, felt, Marvin, Felt
AL UNION, felt, Marvin, Felt
AR BATESVILLE, heavy, Perdue, "Intense."
AR BEEBE, 3, Saint Louis Post-Dispatch 1895 Oct. 31, "BEEBE, Ark., Oct. 31.--A slight earthquake was felt in this city at 5 o'clock this morning. No damage has been reported."
AR BRINKLEY, felt, Marvin, "Shock was also felt at...Brinkley, and several other points in eastern Arkansas." [See Little Rock]
AR CORNING, felt, Marvin, Felt
AR FORREST CITY, felt, Marvin, "Shock was also felt at Forrest City...and several other points in eastern Arkansas." [See Little Rock]
AR FORT SMITH, 2, Marvin, "A very slight earthquake shock was felt by a few individuals here at a few minutes past 6 o'clock a.m., but without any rumbling noise. Of about fifty persons asked relative to the shock only two stated that they felt it--Dr. Hatchett, a practising physician, and Mr. W. Abbot, lumber merchant. Dr. Hatchett reports the motion as lateral, but does not know the direction of movement; Mr. Abbot states the movement was toward the west. The weather Bureau observer did not feel the shock."
AR HELENA, felt, Marvin, "Shock was also felt at...Helena...and several other points in eastern Arkansas." [See Little Rock]
AR LA CROSSE, felt, Marvin, Felt
AR LITTLE ROCK, 5, Marvin, "Distinct earthquake, the vibrations being east and west and lasting about one minute, occurred at 6.15 a.m. Shock was also felt at Forrest City, Helena,

- Brinkley, and several other points in eastern Arkansas."
- AR NEWPORT, 5, Saint Louis Post-Dispatch 1895 Oct. 31, "NEWPORT, Ark., Oct. 31.--About 5:05 this morning Newport was pretty badly jarred by an earthquake. Two distinct shocks of several seconds' duration were felt. The shocks were so heavy as to awaken the inhabitants from their sleep."
- AR OSCEOLA, felt, Marvin, Felt
- AR POCAHONTAS, felt, Marvin, Felt
- CO DENVER, 0, Denver Daily News 1895 Nov. 1, "Its Western Limit Appeared to Be at Topeka, Kan." [Implies not felt in Denver]
- DC WASHINGTON, felt, Marvin, Felt
- GA ATLANTA, felt, Branner and Hansell, Felt
- GA ATLANTA, light, Perdue, "Slight."
- GA AUGUSTA, 3, Marvin, "Shortly after 6 a.m. to-day a number of persons felt a slight earthquake shock, which, from all accounts, lasted about a second or two; the tremor was just perceptible by the rattling of windows; direction of vibration could not be ascertained."
- GA DAHLONEGA, felt, Marvin, Felt
- GA GRIFFIN, felt, Marvin, Felt
- GA LA GRANGE, felt, Marvin, Felt [Changed from LAGRANGE to LA GRANGE]
- GA ROME, felt, Marvin, Felt
- IA AMES, felt, Marvin, Felt
- IA BURLINGTON, 4, Denver Daily News 1895 Nov. 1, "BURLINGTON, Iowa, Oct. 31.--One severe, two light shocks of earthquake were felt at 5 o'clock this morning."
- IA BURLINGTON, 4, Dubuque Iowa Telegraph Herald 1895 Nov. 1, "Burlington, Ia., Oct. 31.--Three shocks of earthquake were felt here Thursday morning, one hard, two light."
- IA BURLINGTON, 4, Saint Louis Post-Dispatch 1895 Oct. 31, "BURLINGTON, Io., Oct. 31.--One severe and two light shocks of earthquake were felt at 5 o'clock this morning."
- IA CEDAR RAPIDS, 5, Dubuque Iowa Telegraph Herald 1895 Nov. 1, "A Cedar Rapids special reports three distinct vibrations there, waking many people and rattling furniture."
- IA CEDAR RAPIDS, felt, Marvin, Felt
- IA CHARITON, felt, Marvin, Felt
- IA DAVENPORT, 3, Marvin, "A moderate earthquake shock was felt this morning about 6.12 o'clock. The direction, amplitude, or intensity of the seismic disturbance could not be determined."
- IA DES MOINES, 3, Dubuque Iowa Telegraph Herald 1895 Nov. 1, "Des Moines, Ia., Oct. 31.--Slight earthquake vibrations were felt here between four and five o'clock Thursday morning."
- IA DES MOINES, 4, Marvin, "There is said to have been a slight earthquake at about 6.00 a.m. Three shocks are reported, the waves moving from east to west."
- IA DES MOINES, 4, Saint Louis Post-Dispatch 1895 Oct. 31, "DES MOINES Io., Oct. 31.--Two slight earthquake shocks were felt here this morning at 5:10. Bottles rattled on dressers and

- windows shook slightly. It was the first shock in thirty years."
- IA DUBUQUE, felt, Marvin, Felt
- IA EAST DES MOINES, 5, Saint Louis Post-Dispatch 1895 Oct. 31, "EAST DES MOINES, Io., Oct. 31.--The first earthquake shock in thirty years was felt here at 5:10 this morning. It lasted several minutes and there were two distinct shocks. Doors and windows rattled and people were awakened."
- IA FAIRFIELD, felt, Marvin, Felt
- IA FORT MADISON, felt, Marvin, Felt
- IA GLENWOOD, felt, Marvin, Felt
- IA GRINNELL felt, Marvin, Felt [Changed from GRINNEL to GRINNELL]
- IA IOWA CITY, felt, Marvin, Felt
- IA KEOKUK, 4, Marvin, "At 6.15 a.m. a slight earthquake shock was felt, preceded by low, rumbling sounds: Motion from south to north, lasting about ten seconds, then an interval of about ten seconds and a second motion of about ten seconds felt; motion swaying light objects, such as lamp shades, hanging pictures &c."
- IA MARSHALLTOWN, felt, Marvin, Felt
- IA MECHANICSVILLE, felt, Marvin, Felt
- IA MOOAR, felt, Marvin, Felt
- IA MORAN, felt, Marvin, Felt
- IA MOUNT PLEASANT, felt, Marvin, Felt
- IA MOUNT VERNON, felt, Marvin, Felt
- IA OTTUMWA, 6, Dubuque Iowa Telegraph Herald 1895 Nov. 1, "Ottumwa, Ia., Oct. 31.--At 5:08 Thursday morning this city was thoroughly shaken by four distinct earthquake shocks, lasting exactly two minutes. Many people ran frightened from their homes and almost a panic ensued. The movement was from south to north and no serious damage resulted."
- IA OTTUMWA, 6, Saint Louis Post-Dispatch 1895 Oct. 31, "OTTUMWA Io., Oct. 31.--Three distinct shocks of earthquake were felt here at 5:15 this morning. Houses shook and woke sleeping inmates. In some cases windows were broken."
- IA OTTUMWA, felt, Marvin, Felt
- IA SIDNEY, felt, Marvin, Felt [Changed from SYDNEY to SIDNEY]
- IA WINTERSET, felt, Marvin, Felt
- IL ALBION, 7, Saint Louis Post-Dispatch 1895 Oct. 31, "ALBION, Ill., Oct. 31.--A heavy earthquake shock was felt here this morning at twenty minutes after 5 o'clock, which continued distinctly for 15 seconds, and shook off the tops of many chimneys."
- IL ALBION, heavy, Marvin, "Heavy"
- IL ALEXANDER, felt, Marvin, Felt
- IL ALTON, 8, Dubuque Iowa Telegraph Herald 1895 Nov. 1, "Alton, Ill., Oct. 31.--Several violent earthquake shocks occurred here at 5:10 Thursday morning. The motion was north to south lasting five minutes. It was the heaviest on record; considerable damage was done."
- IL ALWOOD, felt, Marvin, Felt [Cannot find locality, not plotted on plate 1]

- IL ATLANTA, felt, Marvin, Felt
- IL ATWOOD, heavy, Marvin, "Severe"
- IL BEARDSTOWN, light, Marvin, "Slight"
- IL BOWEN, 5, Saint Louis Post-Dispatch 1895 Oct. 31, "BOWEN, Ill., Oct. 31.--The inhabitants of Bowen were awakened at 5:12 this morning by an earthquake. No damage done, but many were frightened. The shock was felt all around this section."
- IL BUSHNELL, felt, Marvin, Felt
- IL CAIRO, 6, Saint Louis Post-Dispatch 1895 Oct. 31, "In Cairo the Public Library Building was damaged."
- IL CAIRO, 7, Moneymaker, "At Cairo, Illinois...several chimneys were thrown down."
- IL CAIRO, 8, Coffman and von Hake, "At Cairo, Ill., buildings swayed, chimneys were demolished."
- IL CAIRO, 8, Heinrich, "In Cairo, Illinois, many chimneys fell. The courthouse and the library were considerably damaged and the brick steeple of St. Joseph's church (Catholic) was cracked and twisted so that it had to be removed. One pier on the Illinois Central Railroad bridge over the Ohio River was cracked."
- IL CAIRO, 8, Marvin, "A severe earthquake shock occurred a few minutes after 6 a.m. The time, as determined by the local forecast official by comparing his watch with seventy-fifth meridian time later in the day, was between 6.07 a.m. and 6.08 a.m., seventy-fifth meridian time. The local forecast official was in bed at the time the shake began, but was fully awake. Its duration, as estimated by considering his movements from the time it began till it ended, and also from the experience of others, including Mr. J. W. Byram, Observer, is believed to have been from thirty-five to forty-five seconds. There is great diversity of opinion as to the direction of the waves, if waves there were. The majority of persons, however, claim that the movement was from east-northeast to west-southwest...No noise, other than that of the cracking and creaking timbers in the house, the rattle of crockery and glassware, and the falling and breaking of parlor and dresser ornaments, was heard. The losses due to broken china and glassware, ornaments, etc., aggregate quite a considerable sum. The number of chimneys shaken down in the city probably runs into the hundreds. The plaster in nearly all frame buildings was more or less damaged. But the brick and stone buildings suffered the most serious damage, though none fell and probably none were rendered uninhabitable. The following are a few of the injured buildings: The county court house, chimneys above the roof shaken down; walls badly cracked. The large brick office building belonging to and occupied by the Cairo Trust Co., chimneys fell, slate roofs damaged [sic], walls cracked. The Safford Public Library, walls badly cracked and the front gable parted from the roof; left standing, but in a dangerous condition, and will have to be removed and replaced. St. Joseph's Catholic Church, brick steeple

cracked and twisted; will have to be removed and rebuilt at an estimated cost of \$1,000 to \$1,200. The United States custom house (stone), old cracks opened and new ones made. A large number of buildings in the downtown business district were damaged by walls being cracked and plate glass fronts broken."

IL CAIRO, 8, Perdue, "A good deal of injury to buildings is reported from Cairo, Illinois. At that place there is reported to have been at least one shock each day during the first five days of November. During one day there were three shocks."

IL CAIRO, 8, Saint Louis Post-Dispatch 1895 Oct. 31, "CAIRO, Ill., Oct. 31.--The earthquake at 5:09 a.m. was the severest ever felt in this section, and lasted 30 seconds. Vibrations were north and south. People left their houses for safety. Many chimneys were shaken down. The public library building was badly damaged."

IL CANTON, 5, Saint Louis Post-Dispatch 1895 Oct. 31, "CANTON, Ill., Oct. 31.--Three distinct earthquake shocks were felt in this section of Illinois this morning. Slight tremors occurred about 3 and 4 o'clock, and a few minutes past 5 o'clock, quite a severe tremor, being so hard that dishes and windows rattled in buildings and a number of people hastily arose under the impression that burglars were beneath their beds or trying to force doors or windows. No damage is reported."

IL CARLINVILLE, 5, Saint Louis Post-Dispatch 1895 Oct. 31, "CARLINSVILLE, Ill., Oct.--At 5:10 this morning the citizens were aroused by the vibrations of the most severe earthquake ever known in this State. The vibrations appeared to be vertical and continued several minutes." [Changed from CARLINSVILLE to CARLINVILLE.]

IL CARLINVILLE, heavy, Marvin, "Severe" [Changed from CARLINSVILLE to CARLINVILLE]

IL CARROLLTON, felt, Marvin, Felt

IL CATLIN, felt, Marvin, Felt

IL CAZENOVIA, light, Marvin, "Light"

IL CHICAGO, 3, Marvin, "An earthquake shock was felt in the morning at about 6.07 a.m. all over the city. The rain gauge register shows a decided jar at that time, no doubt caused by the shock. The shock was also felt at Downers Grove, about 15 miles west of the city on the Burlington road. The shock lasted from fifteen to thirty seconds."

IL CHICAGO, 5, Denver Daily News 1895 Nov. 1, "CHICAGO, Oct. 31.--A distinct earthquake shock visited Chicago at 5.15 o'clock this morning lasting for about fifty-five seconds. No damage was done, but in many houses pictures were thrown to the floor and crockery broken.

The shock was unaccompanied by any audible rumbling, coming in gently from the lake and disappearing across the prairies of the west. It was most severely felt on the North side, where probably the majority of sleepers were awakened. In the wooden houses of Buena park and other

North side suburbs, the shaking up was so perceptible that many persons dashed out of their houses in scantily [sic] clothing. During the shock and for several hours after the electricity in the atmosphere was more than oppressive to persons of nervous temperament...

A North sider who passed through the Charleston earthquake nine years ago, said:

"I felt the shock last night and recognised it immediately. It equalled in force the forerunner of the South Carolina shaking up... My bed last night was shaken from east to west, the sensation being as though the center of the disturbance was directly under the house. In the Charleston earthquake the shocks increased in violence daily until...the great disturbance...happened at 9:50 o'clock on the night of August 31, 1886."

IL CHICAGO, 5, Dubuque Iowa Telegraph Herald 1895 Nov. 1, "Chicago, Oct. 31.--Chicagoans were alarmed a few minutes after five o'clock Thursday morning by feeling a distinct earthquake shock. The vibrations, which were felt plainly all over the city, were severe enough to shake objects on the mantels or desks in the tall buildings, and milkmen and other early risers, fearing that some of the skyscrapers might take a tumble, made haste to get on streets where there was less danger. At the 22d street police station the severity of the disturbance was such as to overturn an inkstand on the desk of the night sergeant. Reports are coming in from all over the city from persons who noticed the earthquake."

IL CLIFTON TERRACE, 6, Saint Louis Post-Dispatch 1895 Oct. 31, "At Clifton terrace, Ill., at 5:30 this morning a very distinct earthquake disturbance was experienced. The occupants of the Tavern were all suddenly awakened by the vibration of the building, accompanied by a rumbling noise similar to that produced by passing railroad trains. The phenomena lasted about forty-five seconds, but caused no damage."

IL COATSBURG, felt, Marvin, Felt

IL DECATUR, felt, Marvin, Felt

IL DOWNERS GROVE, 3, Marvin, "The shock was also felt at Downers Grove, about 15 miles west of the city [Chicago] on the Burlington road."

IL EDWARDSVILLE, 6, Saint Louis Post-Dispatch 1895 Oct. 31, "EDWARDSVILLE, Ill., Oct. 31.--Two very distinct earthquake shocks were felt here this morning at 5:08 o'clock. The heaviest shock came first, accompanied by a deep, rumbling sound. This was followed by a second shock immediately after. The vibrations, covering a period of five minutes, were from west to east, and were of so sudden and severe a character as to awaken every inhabitant and seriously frighten many."

IL EFFINGHAM, felt, Saint Louis Post-Dispatch 1895 Oct. 31, "EFFINGHAM, Ill., Oct. 31.--A very perceptible earthquake occurred here at 5:10 this morning."

- IL FLORA, heavy, Marvin, "Severe"
- IL FREEPORT, 3, Dubuque Iowa Telegraph Herald 1895 Nov. 1,
"Freeport, Ill., Oct. 31.--Slight earthquake here Thursday
mornning shook largest buildings, but no serious damage
done."
- IL FRIENDGROVE, felt, Marvin, Felt [Found Friendgrove in Wabash
County in Rand-McNally, 1914, Atlas. Changed from FRIEND
GROVE to FRIENDGROVE.]
- IL GALVA, felt, Marvin, Felt
- IL GILLESPIE, 4, Saint Louis Post-Dispatch 1895 Oct. 31,
"GILLESPIE, Ill., Oct. 31.--Quite a distinct earthquake
shock was felt here this morning, lasting nearly two minutes
and rattling stoves, windows, etc. quite vigourously."
- IL GILMAN, felt, Marvin, Felt
- IL GOLCONDA, heavy, Marvin, "Very heavy"
- IL GRAND TOWER, 7, Saint Louis Post-Dispatch 1895 Oct. 31,
"GRAND TOWER, Ill., Oct. 31.--A heavy earthquake occurred at
5:11 o'clock this morning and lasted three minutes and a
half. It was the heaviest quake ever felt in this vicinity.
Many houses were damaged by plaster being broken and falling
off."
- IL GRAYVILLE, 7, Saint Louis Post-Dispatch 1895 Oct. 31,
"GRAYVILLE, Ill., Oct. 31.--An earthquake, the most terrific
one ever felt here, visited this city and vicinity early
this morning. buildings rocked like cradles and in some
instances brick were shaken from chimneys. The shock lasted
several seconds and seemed to be from west to east."
- IL GREENUP, 5, Saint Louis Post-Dispatch 1895 Oct. 31,
"GREENUP, Ill., Oct. 31.--The most severe earthquake shock
ever felt here aroused the entire population at 5:25 this
morning. It was of about five seconds duration and resulted
in no damage."
- IL GREENVILLE, felt, Marvin, Felt
- IL HAVANA, felt, Marvin, Felt
- IL HIGHLAND, 6, Saint Louis Post-Dispatch 1895 Oct. 31,
"HIGHLAND, Ill., Oct. 31.--A very severe earthquake shock
was felt here this morning at 5:15. The vibration was
continuous, and lasted fully 30 seconds. Houses rocked,
windows rattled and many people started to leave their
homes. No damage or serious happenings are reported."
- IL HILLSBORO, 5, Saint Louis Post-Dispatch 1895 Oct. 31,
"HILLSBORO, Ill., Oct. 31.--A distinct earthquake shock of
thirty seconds duration occurred here at 5:30 this morning,
so strong that almost every one in the city was awakened.
The oscillation was from east to west."
- IL HILLSBORO, felt, Marvin, Felt
- IL IRON, heavy, Marvin, "Very heavy" [Found on 2-degree topo in
White County]
- IL JACKSONVILLE, 5, Saint Louis Post-Dispatch 1895 Oct. 31,
"JACKSONVILLE, Ill., Oct. 31.--Residents of this vicinity
were rudely awakened a little after 5 o'clock by an
unaccountable jarring of their beds, the cause being an
earthquake, which was estimated to have lasted in all sixty

- seconds. The shocks were hard enough to shake people up right lively and rattle furniture and shutters at a brisk rate."
- IL JORDAN GROVE, felt, Marvin, Felt [Found Jordan Grove in Randolph County in Johnson's, 1881, Atlas. Changed from JORDANS GROVE to JORDAN GROVE.]
- IL LANARK, felt, Marvin, Felt
- IL LEXINGTON, felt, Marvin, Felt
- IL LITCHFIELD, 6, Saint Louis Post-Dispatch 1895 Oct. 31, "LITCHFIELD, Ill., Oct. 31.--An earthquake was felt here at 5:10 a. m. Dishes were thrown upon the floor and people awakened from their slumbers. No serious damage was done."
- IL LOUISVILLE, felt, Marvin, Felt
- IL MACOMB, 4, Saint Louis Post-Dispatch 1895 Oct. 31, "MACOMB, Ill., Oct. 31.--Quite a severe shock of earthquake was experienced in this city this morning about 5 o'clock. From telephone reports the shock seems to have been felt all over this section of the State."
- IL MARSHALL, 5, Saint Louis Post-Dispatch 1895 Oct. 31, "MARSHALL, Ill., Oct. 31.--An earthquake was felt here this morning at 5:10. Houses were shaken until the windows and furniture rattled. The shock lasted about thirty seconds and many people were badly frightened."
- IL MARTINSVILLE, felt, Marvin, Felt
- IL MATTOON, heavy, Marvin, "Quite heavy"
- IL MC LEANSBORO, felt, Marvin, Felt
- IL MOLINE, 4, Saint Louis Post-Dispatch 1895 Oct. 31, "MOLINE, Ill., Oct. 31.--Moline and vicinity was visited by an earthquake at 5:15 this morning. Houses and contents were shaken. It lasted half a minute. No damage.
- IL MONMOUTH, 5, Saint Louis Post-Dispatch 1895 Oct. 31, "MONMOUTH, Ill., Oct. 31.--A heavy earthquake shock was felt here about 5 this morning. Many people were awakened, doors were opened, and furniture shaken."
- IL MOUNT PULASKI, felt, Marvin, Felt
- IL MOUNT VERNON, felt, Marvin, Felt
- IL MOWEAQUA, 3, Saint Louis Post-Dispatch 1895 Oct. 31, "MOWEAQUA, Ill., Oct. 31.--Two distinct shocks were felt here at 5 o'clock this morning, lasting two minutes."
- IL NEW BURNSIDE, heavy, Marvin, "Very heavy"
- IL OLNEY, felt, Marvin, Felt
- IL OTTAWA, felt, Marvin, Felt
- IL PALESTINE, felt, Marvin, Felt
- IL PARIS, 3, Dubuque Iowa Telegraph Herald 1895 Nov. 1, "Paris, Ill., Oct. 31.--Two distinct earthquake shocks were felt here Thursday morning at 5:15."
- IL PARIS, 6, Saint Louis Post-Dispatch 1895 Oct. 31, "PARIS, Ill., Oct. 31.--This city was aroused from slumber at 5:15 a. m. to-day by an earthquake shock of considerable violence. No serious damage was done, but some breakage of crockery by falling plastering, and other slight mishaps are reported. The shock was of about thirty seconds duration, and was followed by a secondary disturbance of shorter

duration and less violence. The first shock was preceded by a very perceptible rumbling sound."

IL PEKIN, 5, Dubuque Iowa Telegraph Herald 1895 Nov. 1, "Pekin, Ill., Oct. 31.--At 5:20 Tuesday morning there was a severe earthquake shock. First came a sudden quick shock like an explosion, accompanied by low rumbling that seemed to come from the sky. About a minute later there was a second shock, which lasted about a minute and a half. It awoke everybody, rattled windows and pictures. It rolled one man, who was sleeping in the third story of a building, out of bed, and in another part of town caused a bed to roll several inches. The vibrations seemed to be north and south. It caused much excitement, but did no damage."

IL PEORIA, felt, Marvin, Felt

IL QUINCY, 5, Dubuque Iowa Telegraph Herald 1895 Nov. 1, "Quincy, Ill., Oct. 31.--At 5:05 o'clock Thursday morning people were aroused from their slumbers by an earthquake the vibrations of which lasted fully a minute. The shock was of sufficient strength to splash water out of vessels, and people who were at breakfast at this early hour report that the coffee was spilled out of the cups. From all directions come reports that houses shook and that windows rattled as though a big storm was raging."

IL QUINCY, 6, Saint Louis Post-Dispatch 1895 Oct. 31, "QUINCY, Ill., Oct. 31.--Sharp earthquake shocks were felt at 5:10 this morning, lasting nearly two minutes. Buildings shook until walls were cracked. Lamps were overturned and dishes broken in some houses by the shock. The oscillation was apparently from east to west. The earthquake was preceded by a long, rumbling noise that terrified people, who thought an explosion had occurred or a storm was imminent."

IL QUINCY, 7, Denver Daily News 1895 Nov. 1, "QUINCY, Ill. Oct. 31.--St. Antonious Catholic church and several other buildings were badly damaged by this mornings' earthquake. One store building will have to be torn down in consequence of the shock.

Burglars blew open a safe in the village of Golden at the same moment as the earthquake. This discovery caused citizens to suppose it was the shock felt until they heard from other points. There were five shocks here and the whole lasted between two and three minutes. Across the river on the Missouri side two houses were shaken down and one woman hurt." [Nearest town across the river is TAYLOR MO.]

IL RANTOUL, felt, Marvin, Felt

IL RED BUD, 4, Saint Louis Post-Dispatch 1895 Oct. 31, "RED BUD, Ill., Oct. 31.--At 5:20 o'clock this morning an earthquake shock was felt, lasting about 50 seconds, and was the heaviest ever known here."

IL REYNOLDS, felt, Marvin, Felt

IL ROCK ISLAND, felt, Marvin, "Duration about 50 seconds"

IL ROCKFORD, 5, Dubuque Iowa Telegraph Herald 1895 Nov. 1, "Rockford, Ill., Oct. 31.--Two distinct earthquake shocks

were felt here at five o'clock Thursday morning. Window glass and china were broken. Guests at hotels were thrown into panic, but no one hurt."

IL ROCKFORD, felt, Marvin, Felt

IL SHELBYVILLE, 5, Saint Louis Post-Dispatch 1895 Oct. 31, "SHELBYVILLE, Ill., Oct. 31.--A severe earthquake shock was experienced here at 5 o'clock this morning. Houses shook to their foundations, windows rattled and people were alarmed."

IL SPRINGFIELD, 5, Dubuque Iowa Telegraph Herald 1895 Nov. 1, "Springfield, Ill., Oct. 31.--This vicinity was visited with an earthquake shock at 5:11 o'clock Thursday morning. The shock lasted for fully a minute and was almost uniform in tendency throughout. It passed from northwest to southeast and shook the houses and buildings in such a manner as to awaken everybody."

IL SPRINGFIELD, 5, Marvin, "Quite a distinct earthquake shock, or series of shocks, was felt in the vicinity at exactly 6.16 a.m. It was accompanied by a rumbling sound, and was sufficiently strong to rattle windows. The apparent movement was from west to east. It lasted about fifteen seconds."

IL STAUNTON, felt, Saint Louis Post-Dispatch 1895 Oct. 31, "STAUNTON, Ill., Oct. 31.--An earthquake shock was felt here at 5 o'clock this morning; no damage is reported."

IL STREATOR, 5, Saint Louis Post-Dispatch 1895 Oct. 31, "STREATOR, Ill., Oct. 31.--Quite a severe earthquake shock was felt here this morning shortly after 5 o'clock. The wave was from west to east, and lasted fully a minute. Nearly everybody in the city was awakened by the violence of the wave, but no damage is reported to buildings. Men in the mines felt the shock distinctly, and were badly frightened."

IL TOWER HILL, 5, Saint Louis Post-Dispatch 1895 Oct. 31, "TOWER HILL, Ill., Oct. 31.--An earthquake of two seconds' duration, seemingly from east to west, was felt here this morning at 5:15 o'clock. The shock is reported as the most severe ever felt in this locality. A quantity of glassware and dishes was shattered."

IL TRENTON, 7, Saint Louis Post-Dispatch 1895 Oct. 31, "TRENTON, Ill., Oct. 31.--There were three earthquake shocks from northwest to southeast in this vicinity at 5:10 a.m. Several chimneys were shaken down and walls cracked."

IL TUSCOLA, 3, Saint Louis Post-Dispatch 1895 Oct. 31, "TUSCOLA, Ill., Oct. 31.--A slight earthquake was felt here about 5 o'clock this morning. It lasted about 30 seconds."

IL TUSCOLA, heavy, Marvin, "Heavy"

IL WAVERLY, 4, Saint Louis Post-Dispatch 1895 Oct. 31, "WAVERLY, Ill., Oct. 31.--This vicinity was visited at 5 o'clock this morning by an earthquake which shook windows and rattled dishes in pantries to a considerable extent. It was accompanied by a low but distinct rumbling sound."

IL WINNEBAGO, felt, Marvin, Felt

IN ALBION, 1, Perdue, "There were increased flows of water."

IN ANDERSON, 6, Dubuque Iowa Telegraph Herald 1895 Nov. 1, "At Anderson every building was shaken, five distinct shocks being felt. The vibrations were from north to south. Furniture was disturbed, crockery was rattled and cupboard doors were thrown open. Hundreds of people ran from their houses in fright, but little damage was done. Anderson experienced shocks in 1875 and 1884."

IN ANDERSON, felt, Marvin, Felt

IN BLUFFTON, 1, Perdue, "Following the earthquake were increased flows of gas."

IN BLUFFTON, felt, Marvin, Felt

IN BRAZIL, 7, Dubuque Iowa Telegraph Herald 1895 Nov. 1, "Brazil, Ind., Oct. 31.--A distinct earthquake shock was felt here at five o'clock Thursday morning. The shock was so severe that several chimneys were shaken from dwelling houses."

IN BUTLERVILLE, heavy, Marvin, "Severe"

IN CAMBRIDGE CITY, felt, Marvin, Felt

IN CENTERVILLE, felt, Marvin, Felt

IN COLUMBIA CITY, 1, Perdue, "The water in the Blue River rose several inches at Columbia City."

IN COLUMBIA CITY, 4, Saint Louis Post-Dispatch 1895 Oct. 31, "COLUMBIA CITY, Ind., Oct. 31.--Distinct and severe tremors of earthquake were felt here from 5:05 to 5:15 this morning."

IN COLUMBUS, 1, Perdue, "There were increased flows of water."

IN COLUMBUS, felt, Marvin, Felt

IN CONNORSVILLE, felt, Marvin, Felt

IN DECATUR, felt, Perdue, Two shocks.

IN DELPHI, felt, Marvin, Felt

IN EDWARDSVILLE, felt, Marvin, Felt

IN EVANSVILLE, felt, Marvin, Felt

IN FARMLAND, felt, Marvin, Felt

IN FORT WAYNE, 4, Saint Louis Post-Dispatch 1895 Oct. 31, "FORT WAYNE, Ind., Oct. 31.--There were three distinct shocks of earthquake here at 5:14 this morning. The second shock was the most severe. Houses shook, windows rattled as if a severe windstorm was prevailing and the occupants were much alarmed. No damage is reported."

IN FRANKFORT, felt, Perdue, Two Shocks.

IN GOSHEN, felt, Perdue, Two shocks.

IN HUNTINGBURG, heavy, Marvin, "Heavy" [Changed from HUNTINGBURY to HUNTINGBURG]

IN HUNTINGTON, felt, Marvin, Felt

IN INDIANAPOLIS, 4?, Dubuque Iowa Telegraph Herald 1895 Nov. 1, "Indianapolis, Ind., Oct. 31.--Startling news is being received here from different points over the state regarding the severe [at Indianapolis?] earthquake shock of Thursday morning."

IN INDIANAPOLIS, 5, Marvin, "An earthquake occurred about 6.11 a.m., lasting about four seconds. I did not feel it, but Mr. Albright, who takes the a.m. observation, reports that he felt the first shock very distinctly at 5.11 a.m. He

- could feel a trembling for about four seconds, and then he felt a second shock, then he felt trembling for about two seconds, and then a third shock. The second shock was the strongest; no trembling was felt after the third shock. In the city and State most people were awakened by the disturbance. No damage was done in the city."
- IN INDIANAPOLIS, 5, Saint Louis Post-Dispatch 1895 Oct. 31, "INDIANAPOLIS, Ind., Oct. 31.--The most pronounced earthquake shock in the memory of citizens or within the history of the weather service occurred at 5:10 this morning. It continued six or seven seconds. Every building in the city was shaken. Thousands of people were awakened. Windows rattled and beds rocked and glasses bumped together."
- IN JASPER, felt, Marvin, Felt
- IN JEFFERSONVILLE, felt, Denver Rocky Mountain News 1895 Nov. 1, The shocks were felt in Jeffersonville...but no damage is reported." [See Louisville KY.]
- IN JEFFERSONVILLE, felt, Marvin, Felt
- IN KOKOMO, felt, Marvin, Felt
- IN LA PORTE, 5, Dubuque Iowa Telegraph Herald 1895 Nov. 1, "Laporte, Ind., Nov. 1.--Northern Indiana was shaken by an earthquake Thursday morning. The disturbance caused great excitement in the vicinity of Dune park West of this city where buildings were violently shaken. The shock was felt here at five o'clock, people being awakened by the peculiar sensation." [Changed from LAPORTE to LA PORTE]
- IN LA PORTE, 5, Saint Louis Post-Dispatch 1895 Oct. 31, "LA PORTE, Ind., Oct. 31.--Northern Indiana cities and towns were shaken by an earthquake this morning, the shock being felt here at 5 o'clock, and at points east and west about the same hour. Buildings swayed, but no reports of damage have been received here. At Dune Park the disturbance was most perceptible, and great excitement and considerable confusion prevailed."
- IN LAFAYETTE, felt, Marvin, Felt
- IN LAFAYETTE, felt, Perdue, Two shocks.
- IN LIBERTY, 7, Saint Louis Post-Dispatch 1895 Oct. 31, "LIBERTY, Ind., Oct. 31.--At 5:15 this morning an earthquake lasting several minutes was felt at Liberty. It was the most severe ever noticed. Brick buildings trembled and cracked, dishes rattled and the tops of chimneys fell. Persons living in three and four-story brick buildings were greatly excited, leaving the buildings in their nightclothes."
- IN LOGANSPORT, felt, Marvin, Felt
- IN LYFORD, felt, Marvin, Felt
- IN MADISON, felt, Marvin, Felt
- IN MARION, 3, Perdue, "Three shocks in rapid succession...Following the earthquake were increased flows of gas."
- IN MARION, felt, Marvin, Felt
- IN MOUNT VERNON, heavy, Marvin, "Severe"

- IN NEW ALBANY, felt, Denver Rocky Mountain News 1895 Nov. 1, "The shocks were felt in...New Albany but no damage is reported." [See Louisville KY.]
- IN NOBLESVILLE, 5, Dubuque Iowa Telegraph Herald 1895 Nov. 1, "At Noblesville, 20 miles north of Indianapolis, the shocks were alarmingly distinct. The people left their beds, which were rocked like cradles, and remained awake until daylight."
- IN PIGEON CREEK, 1, Perdue, "The water in Pigeon Creek, Warrick County, rose one and a half feet the day following the earthquake, but soon subsided." [Plotted along Pigeon Creek, in northwestern Warrick County]
- IN PORTLAND, felt, Perdue, "Three shocks in rapid succession are reported from Portland...Following the earthquake were increased flows of gas at Portland."
- IN PRINCETON, 8, Dubuque Iowa Telegraph Herald 1895 Nov. 1, "Princeton, Ind., Oct. 31.--One of the most distinct earthquake shocks ever felt occurred here at 5:15 a.m. Vibration west to east lasting one half minute. Considerable damage was done to chimneys."
- IN PRINCETON, heavy, Marvin, "Severe"
- IN RICHMOND, 4, Dubuque Iowa Telegraph Herald 1895 Nov. 1, "At Richmond the shock came at 5:10 a.m. The motion was from east to west."
- IN RICHMOND, 4, Saint Louis Post-Dispatch 1895 Oct. 31, "RICHMOND, Ind., Oct. 31.--This city was shaken by an earthquake shortly after 5 o'clock this morning. It was very distinct and seemed to extend from east to west. No damage."
- IN ROCKVILLE, felt, Marvin, Felt
- IN SCOTTSBURG, felt, Marvin, Felt
- IN SEYMOUR, felt, Marvin, Felt
- IN SHELBYVILLE, 1, Perdue, "There were increased flows of water."
- IN SOUTH BEND, 5, Denver Daily News 1895 Nov. 1, "SOUTH BEND, Ind., Oct. 31.--Earthquake visited this section of Indiana about 5 o'clock this morning. In South Bend the shock was distinctly felt and severe enough to cause steam-pipes in buildings to rattle and to awaken sleepers. The general direction appeared to be from northwest to southeast. No damage yet reported."
- IN SOUTH BEND, 5, Saint Louis Post-Dispatch 1895 Oct. 31, "SOUTH BEND, Ind., Oct. 31.--An earthquake visited this section of Indiana about 5 o'clock this morning. In South Bend the shock was distinctly felt, and severe enough to cause steam pipes in buildings to rattle and to awaken sleepers. The general direction appeared to be from northwest to southeast. No damage."
- IN SOUTH BEND, felt, Marvin, Felt
- IN SYRACUSE, felt, Marvin, Felt
- IN TERRE HAUTE, 6, Saint Louis Post-Dispatch 1895 Oct. 31, "TERRE HAUTE, Ind., Oct. 31.--At 5:10 this morning an earthquake, lasting fully a minute, was felt in this city."

Houses shook, windows rattled and were broken, clocks stopped, and the town clock on the court house tamped twice."

- IN TERRE HAUTE, felt, Marvin, Felt
IN TOPEKA, felt, Marvin, Felt
IN VALPARAISO, felt, Marvin, Felt
IN VEVAY, heavy, Marvin, "Strong"
IN WABASH, 1, Perdue, "There were increased flows of water."
KS ABILENE, 4, Dubuque Iowa Telegraph Herald 1895 Nov. 1, "Abilene, Kan., Oct. 31.--A slight earthquake shock was felt about 5:10 o'clock Thursday morning, lasting about five seconds. It awakened people but no harm was done."
KS BLAINE, felt, Marvin, Felt
KS CONCORDIA, 3, Marvin, "A slight shock of earthquake was felt in this city at 6.12 a.m. Mr. James, train dispatcher at the Central Branch Railroad, who was on duty at the time, states that there were three distinct shocks, about fifteen seconds apart."
KS FORT SCOTT, 5, Saint Louis Post-Dispatch 1895 Oct. 31, "FT. SCOTT, Kan., Oct. 31.--An earthquake shock terrorized many residents of this city about 5 o'clock this morning. Some of the large brick buildings shook violently and people left them in haste. The night operators at the Missouri Pacific and M. K. & T. depots left the building hurriedly. A switch light was shattered at Franklin Junction."
KS FRANKFORT, felt, Marvin, Felt
KS FRANKLIN, 5, Saint Louis Post-Dispatch 1895 Oct. 31, "A switch light was shattered at Franklin Junction." [See KS FORT SCOTT. Franklin Junction is not on any list or map, but found a Franklin 35 km south of Fort Scott along an abandoned railroad on the 2-degree topo. Plotted Franklin. Changed from FRANKLIN JUNCTION to FRANKLIN.]
KS MANHATTAN, felt, Marvin, Felt
KS TOPEKA, 4, Saint Louis Post-Dispatch 1895 Oct. 31, "TOPEKA, Oct. 31.--An earthquake shock was distinctly felt for half a minute here at 5:12 this morning. The vibrations were from east to west."
KS TOPEKA, 5, Marvin, "An earthquake shock about 6.12 a.m., but the observer was not awaked by it, though a large number of citizens were."
KS WAMEGO, felt, Marvin, Felt
KS WICHITA, felt, Branner and Hansell, Felt
KS WICHITA, light, Perdue, "Scarcely felt."
KY ALPHA, heavy, Marvin, "Violent"
KY BLANDVILLE, heavy, Marvin, "Very severe"
KY BOWLING GREEN, felt, Marvin, Felt
KY BOWLING GREEN, felt, Perdue, Three shocks.
KY CANTON, felt, Marvin, Felt
KY COLUMBUS, 7, Perdue, "At Columbus, Kentucky, the shock was sufficient to crack brick walls and throw off plaster. As at Charleston the first shock was immediately followed by two others of less intensity. One subsequent earthquake is reported for November 1 at 8:00 p.m."

KY EARLINGTON, felt, Marvin, Felt
 KY EDMUNTON, felt, Marvin, Felt
 KY FALMOUTH, felt, Marvin, Felt
 KY FORDS FERRY, felt, Marvin, Felt
 KY FRANKFORT, felt, Perdue, Three shocks.
 KY FRANKLIN, felt, Marvin, Felt
 KY HENDERSON, heavy, Marvin, "Very severe"
 KY LOUISVILLE, 4, Saint Louis Post-Dispatch 1895 Oct. 31,
 "LOUISVILLE, Ky., Oct. 31.--The earthquake shock here at
 5:17 was felt all over the city, but no damage is reported."
 KY LOUISVILLE, 6, Denver Rocky Mountain News 1895 Nov. 1,
 "Louisville, Oct. 31 [No state given in hand-written
 account--KY assumed.] Three terrific shocks of earthquake
 were felt in this city at 5:15 o'clock this morning. The
 first shock was preceded by a mighty roar like that of
 distant thunder. The shock lasted fully twenty seconds, and
 a second and third not quite so violent, lasted about twelve
 seconds. The vibrations were from southeast to northwest.
 The tall buildings in the city were violently shaken.
 At the Louisville Hotel and the Galt [?] house all the
 guests were aroused and much alarmed.
 In some parts of the city people were thrown from their
 beds, the shocks were so violent.
 The shocks were felt in Jeffersonville and New Albany
 but no damage is reported. Reports from different parts of
 the state say the shock was very heavy." [Jeffersonville IN
 and New Albany IN are suburbs of Louisville KY.]
 KY LOUISVILLE, 6, Marvin, "Three distinct and very severe
 earthquake shocks were experienced this morning. The first
 occurred at 6.07 a.m, and was followed a few seconds later
 by a second, and after a brief interval, by the third and
 most violent. While no serious damage resulted, the
 vibrations were of sufficient force to cause the ringing of
 bells, the rocking of articles of furniture, and the
 displacing of ornaments and other articles from tables and
 mantels. The disturbance appeared to proceed from the
 northwest toward the southeast. A number of persons state
 that a slight shock occurred shortly after midnight, and
 many report that the main shock this morning was accompanied
 by a brilliant flash of light, resembling lightning. The
 earthquake was very general throughout Kentucky and was
 apparently most severe in the extreme western counties."
 KY PADUCAH, 8, Saint Louis Post-Dispatch 1895 Oct. 31,
 "PADUCAH, Ky., Oct. 31.--at 5:10 o'clock this morning a
 severe shock of earthquake was felt all over town. Houses
 swayed to and fro, a number of chimneys fell and several
 walls were cracked."
 KY PADUCAH, felt, Marvin, Felt
 KY PLEASURE RIDGE PARK, felt, Marvin, Felt
 KY PRINCETON, felt, Marvin, Felt
 KY VANCEBURG, 6, Dubuque Iowa Telegraph Herald 1895 Nov. 1,
 "Vanceburg, Ky., Oct. 31.--The earthquake shock was
 distinctly felt here at five a.m. The oscillations were so

- marked as to cause great consternation and some damage to tall buildings. Many people ran out into the streets in their night dress and waited there till the alarm subsided."
- LA NEW ORLEANS, 3, Dubuque Iowa Telegraph Herald 1895 Nov. 1, "New Orleans, Oct. 31.--A slight shock of earthquake was felt here Thursday morning at 5:00. The vibration was from east to west."
- LA NEW ORLEANS, 3, Saint Louis Post-Dispatch 1895 Oct. 31, "NEW ORLEANS, La., Oct. 31.--A slight shock of earthquake was felt here this morning at 5:09. The vibrations were from east to west."
- MI BATTLE CREEK, felt, Marvin, Felt
- MI BENTON HARBOR, 5, Dubuque Iowa Telegraph Herald 1895 Nov. 1, "Benton Harbor, Mich., Oct. 31.--A violent shock of earthquake was experienced here at 5:10 Thursday morning. The vibration lasted about a minute and was followed by a rumbling sound. Buildings creaked and bells rang. Many persons were aroused by the shock and some excitement prevailed for a short time."
- MI BERRIEN SPRINGS, felt, Marvin, Felt
- MI GRAND HAVEN, 3, Marvin, "Sharp earthquake shock felt this morning about 6.20, the vibrations lasting fully one minute. No damage was done."
- MI GRAND RAPIDS, felt, Marvin, Felt
- MI HANOVER, felt, Marvin, Felt
- MI KALAMAZOO, 5, Saint Louis Post-Dispatch 1895 Oct. 31, "KALAMAZOO, Mich., Oct. 31.--An earthquake shock lasting one minute was felt in all parts of the city at 5:10 this morning. A large number of people were awakened by the rough shaking of beds. Windows were rattled, and houses cracked."
- MI KALAMAZOO, felt, Marvin, Felt
- MI NILES, 6, Denver Daily News 1895 Nov. 1, "NILES, Mich., Oct. 31.--An earthquake shock was felt here at 5:15 this morning, lasting five minutes. Buildings trembled, windows cracked, beds swayed and people rushed out of doors alarmed to the highest pitch. Pictures broke their fastenings and fell to the floor. Three distinct shocks were felt."
- MI NILES, 6, Saint Louis Post-Dispatch 1895 Oct. 31, "NILES, Mich., Oct. 31.--An earthquake shock was felt here at 5:15 this morning, lasting five minutes. Buildings trembled, windows cracked, beds swayed and people rushed out of doors alarmed to the highest pitch. Pictures broke their fastenings and fell to the floor. Three distinct shocks were felt."
- MI SOUTH HAVEN, felt, Marvin, Felt
- MI THREE RIVERS, 5, Dubuque Iowa Telegraph Herald 1895 Nov. 1, "Three Rivers, Mich., Oct. 31.--An earthquake shock of about 20 seconds' duration was felt here at five o'clock Thursday morning. It was accompanied by rumbling noises and shook buildings. Most of the inhabitants were awakened by the shock."
- MO BERTRAND, sandblows, Coffman and von Hake, "Near Bertrand,

Mo., Hundreds of mounds of sand were piled up, ranging from 12 inches to 10 feet in circumference. The ditches in this neighborhood were filled with water coming from the resulting holes, because there had been no rain to fill them in any other way for nearly 2 months."

MO BERTRAND, sandblows, Heinrich, "East of Charleston, near Bertrand, [Bertrand is west of Charleston] waterspouts were reported and 'hundreds' of mounds six to ten feet in diameter composed of white sand were thrown up."

MO BERTRAND, sandblows, Moneymaker, "Near Bertrand, Missouri, hundreds of mounds of white sand were thrown up."

MO BERTRAND, sandblows, Sampson, "Near Bertrand hundreds of mounds of sand were piled up, ranging from twelve inches to ten feet in circumference, and the ditches in this neighborhood were filled with water, coming from the holes made, there having been no rain to fill them in any other way for nearly two months."

MO BIG LAKE, sandblows, Coffman and von Hake, "Near Big Lake, 4 miles north of Charleston, two small holes were formed in the earth from which water spouted to a height of 3 feet." [Found Big Lake Ditch (not a town) about 4 miles north of Charleston on 2-degree topo. There is also a large lake called Big Lake on the Missouri-Arkansas border some 125 km south of Charleston, with a small town called Big Lake, AR, on the southern shore. Plotted Big Lake Ditch. [See also MO CHARLESTON, aftershock.]

MO BIG LAKE, sandblows, Coffman and von Hake, "Near Charleston, 4 acres of ground sank and a lake was formed."

MO BIG LAKE, sandblows, Sampson, "Near Big Lake, four miles north of Charleston, were two small holes in the earth from which the water spouted to the height of three feet."

MO BIRCH TREE, felt, Marvin, Felt

MO BLUFFTON, felt, Marvin, Felt

MO CAPE GIRARDEAU, 7, Girardeau Democrat 1895 Nov. 2, "At five o'clock Thursday morning our people were aroused from their slumbers by a roaring sound followed by an awful earth-quake shock. The shock began by a quivering motion of the earth and as it increased, houses cracked and rocked like the branches of trees in a storm. The shock lasted nearly four minutes and nearly everybody in the city got out of bed. The plastering in some houses was cracked and it is believed that many cisterns are ruined. Ten thousand dollars in gold that was stacked up in the time lock safe in the First National Bank was found this morning scattered all about the safe.

The shock was the severest ever felt here, and news comes from adjoining counties that it was a general shock throughout Southeast Missouri. At Puxico stoves were turned over and chimneys and flues tumbled down."

MO CENTRALIA, 5, Saint Louis Post-Dispatch 1895 Oct. 31, "CENTRALIA, Mo., Oct. 31.--Three sharp and distinct shocks of earthquake were experienced here at 5:35 this morning. The vibrations were great enough to shake buildings, causing

- windows to rattle and arouse the people."
- MO CHAIN OF ROCKS, 5, Saint Louis Post-Dispatch 1895 Oct. 31, "CHAIN OF ROCKS, Mo., Oct. 31.--At 5:08 this morning occurred one of the worst shocks of earthquake that ever passed over the country here. It seemed to pass from west to east and lasted about thirty seconds." [Found on 2-degree topo in Lincoln County]
- MO CHARLESTON, 8, Heinrich, "The earthquake evidently had maximum intensity near Charleston, Missouri, where every building in the commercial block was damaged. Every structure 'rocked' and many walls were cracked."
- MO CHARLESTON, 8, Moneymaker, "At Charleston, Missouri, near the epicenter, the damage to structures was heavy."
- MO CHARLESTON, 8, Perdue, "The person...reporting from that place [Charleston] says that the force was 'sufficient to break several plate-glass windows, crack brick walls, and throw down brick chimneys.' He also reports: 'About four miles southwest of this place the ground was cracked open in several places, and sand and water were forced from the fissures, causing what are commonly known in this section as sandblows. For a few minutes afterward water spouted from several pumps.' There were at least two slight shocks immediately following the severe one, at intervals of ten or fifteen minutes. Subsequently earthquakes occurred on November 1 at 8:15 p.m.; November 2 at 9:50 a.m., and November 17 at 9:20 p.m."
- MO CHARLESTON, [aftershock], Saint Louis Post-Dispatch 1895 Nov. 2, "ANOTHER EARTHQUAKE. Charleston, Mo., Has Experienced a Second Shock. CHARLESTON, Mo., Nov. 2.--A second earthquake shock, lasting some thirty seconds, was felt here shortly after 8 p.m. Since Thursday's earthquake about four acres of land near Henson Lake, six miles from here, have sunk and filled with water, forming another lake. Near Big Lake four miles north of here, are two small holes in the earth, from which the water is spouting to the height of three feet." [See also BIG LAKE and HENSON.]
- MO CHICOPEE, 5, Saint Louis Post-Dispatch 1895 Oct. 31, "CHICOPEE, Mo., Oct. 31.--Two distinct earthquake shocks were felt here about 4:40 this morning. The former was light, but the latter was stronger, shaking houses till the windows rattled and waking all who slept." [Found on 2-degree topo in Carter County]
- MO CHILLICOTHE, 5, Saint Louis Post-Dispatch 1895 Oct. 31, "CHILLICOTHE, Mo., Oct. 31.--An earthquake shock was felt in this city at 5:10 this morning. Sleeping people were aroused by their beds being violently shaken and other evidences of the internal disturbance were manifested. The shock lasted thirty seconds."
- MO CLARKSVILLE, 5, Saint Louis Post-Dispatch 1895 Oct. 31, "CLARKSVILLE, Mo., Oct. 31.--At about 5 o'clock this morning the inhabitants of this city were aroused by the violent shaking of their houses. No damage."
- MO CLAYTON, 5, Saint Louis Post-Dispatch 1895 Oct. 31, "At

- Clayton the tremor began at about 5:10 o'clock, and lasted about thirty seconds. Residents were greatly alarmed at its severity."
- MO CLINTON, 5, Saint Louis Post-Dispatch 1895 Oct. 31, "CLINTON, Mo., Oct. 31.--Nearly the entire population of Clinton was awakened this morning at 5:15 by a movement of the earth. The tremors were very distinct."
- MO COLUMBIA, 3, Marvin, "A slight earthquake shock was felt at 6.08 a.m. No damage reported."
- MO DE SOTO, 5, Saint Louis Post-Dispatch 1895 Oct. 31, "DE SOTO, Mo., Oct. 31.--A severe shock of earthquake was felt here at eleven minutes after 5 this morning, lasting for one minute. A rumbling sound like distant thunder preceded the shock, and lasted throughout it. Houses were badly shaken, and the inhabitants very much frightened."
- MO DUNKLIN COUNTY, felt, Coffman and von Hake, "In Dunklin County, shocks were much lighter." [Lighter than at Charleston, Bertrand, or Big Lake? Plotted near center of county.]
- MO DUNKLIN COUNTY, felt, Sampson, "In Dunklin county shocks were much lighter. It lasted three minutes from northeast to southwest, but no damage was done."
- MO EDGEHILL, felt, Marvin, Felt
- MO EIGHT MILE, felt, Marvin, Felt [Found in Rand-McNally, 1914, Atlas, in Cass County, near Harrisonville]
- MO EXCELSIOR SPRINGS, 4, Saint Louis Post-Dispatch 1895 Oct. 31, "EXCELSIOR SPRINGS, Mo., Oct. 31.--An earthquake shock was felt here this morning at 5 o'clock. There were three vibrations, lasting for three minutes. Houses were swayed to an fro and doors and windows rattled."
- MO FARMINGTON, 5, Saint Louis Post-Dispatch 1895 Oct. 31, "FARMINGTON, Mo., Oct. 31.--A very decided earthquake was felt here early this morning at 5 o'clock. The vibrations lasted three seconds or more, rocking houses, rattling windows and shaking things up generally. No damage reported."
- MO FAYETTE, felt, Marvin, Felt
- MO FULTON, felt, Marvin, Felt
- MO GAYOSO, felt, Marvin, Felt [Found on 2-degree topo in Pemiscot County]
- MO GLASGOW, felt, Marvin, Felt
- MO GORDONSVILLE, felt, Marvin, Felt [Cannot find a Gordonsville, but there are two towns named Gordonville, a modern one in Cape Girardeau County (as far back as the Rand-McNally, 1914, but not the Johnson's, 1881, Atlas), and an older one listed by both Bullingers, 1876, and Johnson's, 1881, for Livingston County. Cannot find the Livingston County Gordonville on any map available. Believe Livingston County probably correct. Not plotted on plate 1.]
- MO HALF WAY, felt, Marvin, Felt
- MO HANNIBAL, 6, Saint Louis Post-Dispatch 1895 Oct. 31, "HANNIBAL, Mo., Oct. 31.--The shock of the earthquake was felt very perceptibly in this city at 5:10 this morning.

- There were three distinct waves, from west to east, and every building in the city rocked to and fro. In many of the stores goods were thrown from the shelves and in residences dishes were thrown off the table and pictures from the walls. The shock lasted about one minute."
- MO HANNIBAL, 7, Dubuque Iowa Telegraph Herald 1895 Nov. 1, "At Hannibal, Mo...the walls of several buildings were thrown out of line and out of place. No serious damage is reported, however."
- MO HANNIBAL, 7, Marvin, "A seismic disturbance, or earthquake shock, was very perceptibly felt at this station at 6.12 to 6.13 a.m., lasting fully one minute, and causing some damage to brick buildings by cracking the walls."
- MO HENSON, sandblows, Sampson, "Near Henson lake, six miles south of with water, forming another lake." [Found Henson in Mississippi County about 7 miles southeast of Charleston in Johnson's, 1881, Atlas and Rand-McNally, 1914, Atlas. Bullingers, 1876, lists Henson's in Mississippi County. See also MO CHARLESTON, aftershock. Changed from HENSON LAKE to HENSON.]
- MO HERMANN, 6, Saint Louis Post-Dispatch 1895 Oct. 31, "HERMANN, Mo., Oct. 31.--An alarming earthquake shock was felt in this vicinity at 5 o'clock this morning and lasted about thirty seconds. Nearly all the clocks in the city were stopped."
- MO HERMANN, felt, Marvin, Felt
- MO HOUSTON, felt, Marvin, Felt
- MO HOUSTONIA, felt, Marvin, Felt
- MO IRONTON, felt, Marvin, Felt
- MO JACKSON, 5, Saint Louis Post-Dispatch 1895 Oct. 31, "JACKSON, Mo., Oct. 31.--The earthquake this morning at 5:10 o'clock was the hardest felt for many years, causing buildings to tremble, and stopping some clocks. The first shock lasted about a minute, and was accompanied by a thunderlike roar. Two smaller shocks followed. Direction, south to north."
- MO JEFFERSON CITY, 6, Saint Louis Post-Dispatch 1895 Oct. 31, "JEFFERSON CITY, Mo., Oct. 31.--An earthquake of considerable force occurred here this morning at 5:10. There was a primary and a secondary ground swell, the first lasting one minute, the latter about fifteen seconds. No serious damage was done. Yet the convulsion [sic] was of sufficient force to break glassware in stores, to tumble down the glasses and bottles in various saloons and break panes of glass in some houses. The short duration and the force of the earthquake have been subjects of general comment this morning."
- MO KANSAS CITY, 4, Marvin, "Two very distinct earthquake shocks were felt at 5.12 a.m., lasting about one-half a minute. It was general in this locality, and from newspaper reports, extended over a wide belt. The official in charge of station was not awakened by it, nor any member of his family. Mr. Young, an assistant, and his family were not

disturbed. Mr. Coup and Mr. Hall, assistants, distinctly felt the vibrations as though some persons were under their beds, moving them. Some parties who are supposed to know more than others about such matters, state that the vibrations were vertical. Not the least suggestion of damage in this part of the country."

MO KANSAS CITY, 4, Saint Louis Post-Dispatch 1895 Oct. 31, "At 5:13 this morning two very distinct earthquake shocks were felt, the oscillation lasting fully two minutes. Houses trembled, windows rattled and chairs rocked, causing considerable alarm."

MO KANSAS CITY, 5, Denver Daily News 1895 Nov. 1, "KANSAS CITY, Oct. 31.--At 5:13 this morning two very distinct earthquake shocks were felt, the oscillation lasting fully two minutes. Houses trembled, windows rattled and chairs rocked, causing considerable alarm."

The shocks were plainly felt in the west bottoms. The Union depot trembled, the floors shook and the ceiling oscillated until the electric lights flickered. Guests of the Blossom house and the Union Depot hotel were much alarmed and rushed out in the hallways.

The Missouri Pacific feared that damage might have been done to its track and gave orders directly after the shock that all trains should run on slow time.

The last earthquake shock felt in Kansas City before the one this morning was in the summer of 1886."

MO KANSAS CITY, 5, Dubuque Iowa Telegraph Herald 1895 Nov. 1, "Kansas City, Mo., Oct. 31.--Two distinct shocks of earthquake were felt here Thursday morning. The last shock, at 5:20, was much more severe than the one which preceded it a few minutes. Houses along the river were severely shaken and many residents fled from their buildings in their nightclothes. Further up on the hills in the business portion of the city the shock was not so strong. No damage has yet been reported."

MO KIDDER, felt, Marvin, Felt

MO KIRKWOOD, 3, Saint Louis Post-Dispatch 1895 Oct. 31, "At Kirkwood there was quite a shaking up, the duration of the shock there being variously estimated at from 30 seconds to two minutes."

MO LA MONTE, felt, Marvin, Felt [Changed from LAMONTE to LA MONTE]

MO LEBANON, felt, Marvin, Felt

MO LEXINGTON, felt, Marvin, Felt

MO LIBERTY, 4, Saint Louis Post-Dispatch 1895 Oct. 31, "LIBERTY, Mo., Oct. 31.--Two distinct shocks of earthquake were felt here this morning about 5:30 o'clock. Only a short time intervened between the shocks. The shock was plainly felt at Female College, a large four-story brick building situated on a hill in the western part of the city."

MO LIBERTY, felt, Marvin, Felt

MO MARCELINE, felt, Marvin, Felt [Changed from MARCELLINE to

- MARCELINE]
- MO MARYVILLE, felt, Marvin, Felt
- MO MC CUNE STATION, felt, Marvin, Felt [Found in Rand-McNally, 1914, Atlas in Pike County]
- MO MEXICO, felt, Marvin, Felt
- MO MINE LA MOTTE, felt, Marvin, Felt
- MO MOBERLY, 6, Saint Louis Post-Dispatch 1895 Oct. 31, "MOBERLY, Mo., Oct. 31.--There was a very perceptible earthquake in this city this morning at 5:10 o'clock, and a few minutes after the first another one was felt, but not so violent as the first. The pictures fell from the walls, and bedsteads and chairs and other furniture shook in such a way that no one could be mistaken. The path of the earthquake seemed to be from east to west. Many citizens of Moberly say they felt the shock at the time stated, and many farmers from the surrounding country say the earthquake was felt by them, giving the time it was felt here 5:10. No damage is reported."
- MO NEW HAVEN, felt, Marvin, Felt
- MO NEW MADRID, 6, Marvin, "Heaviest since 1811" [Nuttli, 1973, gives intensity IX at New Madrid for 1811 Dec. 16 and 1812 Jan. 23 and gives X-XI for 1812 Feb. 7.]
- MO NEW PALESTINE, felt, Marvin, Felt [Found in Stielers, 1905, Atlas, in Cooper County]
- MO OAK RIDGE, felt, Marvin, Felt
- MO OAKFIELD, felt, Marvin, Felt [Found in Johnson's, 1881, Atlas in Franklin County]
- MO ORAN, 6, Saint Louis Post-Dispatch 1895 Oct. 31, "ORAN, Mo., Oct. 31.--The earthquake struck this place at 5:10 o'clock a.m., and was the worst felt in forty years, but only slight damage to window glass is reported as yet."
- MO OREGON, felt, Marvin, Felt
- MO PALMYRA, felt, Marvin, Felt
- MO POPLAR BLUFF, felt, Heinrich, "At Poplar Bluff the movement was described as rocking and seemed to be east-west. A noise 'like a cyclone' preceded the shock."
- MO POPLAR BLUFF, felt, Marvin, Felt
- MO POTOSI, felt, Marvin, Felt
- MO PUXICU, 8, Girardeau Democrat 1895 Nov. 2, "At Puxico stoves were turned over and chimneys and flues tumbled down."
- MO ROCK PORT, 5, Saint Louis Post-Dispatch 1895 Oct. 31, "ROCKPORT, Mo., Oct. 31.--This morning at 5:20 a decided earthquake shock was felt in this city. People were generally awakened and fled from their houses to find the cause. Clocks were stopped at the hour indicated, and the shaking up was by no means a gentle one as the people were generally asleep. The direction of the seismic wave was not noticed." [Changed from ROCKPORT to ROCK PORT]
- MO SAINT CHARLES, 7, Saint Louis Post-Dispatch 1895 Oct. 31, "The shock was...plainly felt...in St. Charles, twenty miles from St. Louis...Chimneys were toppled over in St. Charles, Mo. The shock began at 5:10 a.m. and lasted about twenty-five seconds."

- MO SAINT CHARLES, felt, Marvin, Felt
- MO SAINT JOSEPH, 5, Denver Daily News 1895 Nov. 1, "ST. JOSEPH, Mo., Oct. 31.--"An earthquake lasting two minutes was felt here at about 5 o'clock this morning. It was of sufficient force to arouse many of the sleeping inhabitants and rattled windows, stoves, etc. No damage was done."
- MO SAINT JOSEPH, 5, Saint Louis Post-Dispatch 1895 Oct. 31, "ST. JOSEPH, Mo., Oct. 31.--An earthquake shock, lasting two minutes was felt here at about 5 o'clock this mornino. It was of sufficient force to arouse many of the sleeping inhabitants, and rattled windows, stoves, etc. No damage was done."
- MO SAINT LOUIS, 6, Denver Daily News 1895 Nov. 1, "The Most Severe Felt Since the Year 1811. ST. LOUIS, Oct. 31.--At 5:12 a.m. several severe earthquake shocks were distinctly felt here. The vibrations were from east to west and each shock continued several seconds. The operators in the Western Union telegraph office became alarmed and several rushed from the building. The shocks were not accompanied by any rumbling noise. Clocks were stopped and windows rattled, but no serious damage has as yet been reported.
- In the west end of the city the people, it is reported by the telephone company, rushed in alarm from their homes, and returned only after having become numb with cold.
- Up to 10 a.m. no damage had been reported beyond the toppling of a few old chimneys, a general swaying of beds and the rattling of furniture and other loose things. The shock was the severest ever felt here and lasted fully two minutes. The weather bureau reports the vibrations were from east to west...
- Prof. F.E. Nipher of the Washington university, who has taken a deep interest in the study of earthquakes, said to an Associated press representative to-day:
- 'To the best of my knowledge this is the most severe earthquake in this locality since the New Madrid earthquake in southwest [sic] Missouri in 1811. As far as I can determine now the direction of this vibration was from north to south, or probably from northeast to southwest.'
- Prof. Prichard of the Washington university thinks nearly the correct time of the shock was 5:7:25, and that it lasted about one minute and forty-five seconds."
- MO SAINT LOUIS, 6, Dubuque Iowa Telegraph Herald 1895 Nov. 1, "St. Louis, Oct. 31.--At 5:12 Thursday morning a distinct earthquake shock was felt here. Buildings trembled and people ran excitedly into the street. The shock lasted three minutes."
- MO SAINT LOUIS, 6, Marvin, "A slight shock of earthquake was felt at 6.10 a.m., lasting about fifteen seconds. The direction of vibration was from east to west. No damage of consequence reported."
- MO SAINT LOUIS, 6, Saint Louis Post-Dispatch 1895 Oct. 31, "An Earthquake Shakes the City--Violent Seismic Disturbance Lasting Nearly a Minute--Felt Throughout the City--Houses

Rocked, windows Rattled and Brick Chimneys Tumbled to the Ground--St. Louis was awakened this morning by the liveliest earthquake that has been felt here in many years.

There were no casualties and the damage to property consisted of the destruction of a few chimneys and the demolition of a few tottering walls. The German Lutheran Church, on Eighth and Walnut streets, got about the worst treatment. It will probably have to be torn down, as the walls are badly cracked.

The shock or shocks, for there appears to have been two of them, were sufficiently violent, however, to arouse everybody who was asleep and to alarm those who were awake. There were panics in the hotels and the all-night resorts, and at the Western Union Telegraph office the operators stampeded.

The time of the disturbance was 5:10, and it lasted at least 45 seconds. Some alleged experts on such phenomena insist that it was twice as long. Opinions vary as to the duration of the vibrations. The Weather Bureau officials say it was from east to west, but a great many citizens claim it was from north to south. Others hold to a diagonal, northwest to southeast theory, and still others contend that the movement was from southwest to northeast.

The first shock was a short and slight one. It was followed by a heavy rumbling, as described by old soldiers as similar to the sound of artillery passing over a paved road. Then came a heavy trembling that endured for more than thirty seconds and did the damage to property.

The shocks were felt in every quarter of the city and in St. Louis County and in numerous adjoining towns.

The shock was also felt on the division of the Toledo, St. Louis & Kansas City Railway from St. Louis to Frankfort, Ind., a distance of 245 miles.

The venerable brick church of the Holy Ghost, German Lutheran, southwest corner of Eighth and Walnut streets, was badly shaken and cracked. A chimney at its northeast corner was thrown down, and the cornice work along the Walnut street side near Eighth, was crumbled and cracked in a number of places. The massive front section which forms the vestibule and choir seems to be wholly detached at the top from the body of the building, which has left a crack an inch or more wide some thirty feet down, alongside a spout leading down from the eaves. The Walnut street pavement is strewn with broken bricks and mortar thrown down by the shock.

A daughter of the pastor, Rev. Ch. F. Stark, showed a Post-Dispatch reporter the inside of the church. Several cracks on both sides of the choir ceiling are visible, and the building is evidently damaged very seriously at the Eighth street end--the front. The Holy Ghost congregation is building a new church in the West End, and this structure, put up in 1834, is soon to be given over to business uses.

Mrs. Anna Horrocks, living two doors from the Holy Ghost, on Walnut, said to the reporter that the shock was very sharp and severe, ringing the door bell and creating the idea of burglars, murderers and all kinds of awful things. She heard the cracking of the church walls distinctly.

Fourth District patrolmen report that the shocks were plainly felt in that part of the city and nearly every one was awakened, many rushing out of their homes in their night garments. No damage was reported.

The shock caused considerable alarm in the Third District and the people fled in fear from the rickety tenements along Seventh, Eighth and Carr and Biddie streets. No damage was reported, although the old buildings were given a lively shaking up."

[There is another 30 inches of fine print in this article about the reactions of people in Saint Louis to the earthquake from which the following is extracted.]

"Pan pellmell down the stairs...when the night clerk's composure and merriment over their alarm stopped the stampede."

"Hotel Manager...said he never felt the shock, but the...guests...were all aroused from sound slumber and nearly scared to death. The bells began to ring with such violence that the dayboard is now out of order. Bells in the rooms wouldn't work well, and guests ran out in the halls in their night clothing to ring the hall bells."

"Bartender was roused...by glasses rattling and falling over."

"The water pitchers in the rooms rattled as if they had the ague and chandeliers shook violently."

"A guest on the third floor was shaken out of bed."

"A panic was created at the Western Union office...Twenty men were on duty on the third floor...The big clock on the south wall...fell to the floor. The switchboards...swayed to and fro. 'If it had continued the least bit longer I am satisfied that the building would have collapsed,' said Mr. Henry. 'The building moved three or four inches. It was easy to see that with the naked eye.'"

"A queer streak of light stretched over the sky just before the shock."

"I saw a chimney on a three-story building...topple over."

"A pyramid of tomato cans tumbled over."

"The shocks were choppy."

"A distinct shock, which felt much like the rocking of a cradle...A lot of things in my garret fell down."

"I got up with a club to look for the man under the bed."

"The big show windows all cracked loudly, and I was so sure that some of them were broken that I lighted matches to examine them."

"I heard a lot of tinware shaking, and at once

realized that it was an earthquake."

"Every dog on earth seemed to be barking at once."

"The chimney and portions of the top walls of the residence...collapsed and fell while the earth was vibrating."

MO SHELBY, felt, Marvin, Felt

MO SIKESTON, felt, Marvin, Felt

MO SLATER, 5, Saint Louis Post-Dispatch 1895 Oct. 31, "SLATER, Mo., Oct. 31.--A slight earthquake was felt here this morning about 5 o'clock. Houses were rocked to and fro, windows rattled and the shaking beds aroused almost the entire population, and many were badly frightened. The shock was of short duration, lasting about 15 seconds. This was the second time anything of the kind was ever felt here, and people are at a loss to account for the strange phenomenon."

MO SPRINGFIELD, 4, Marvin, "At 6.13 an earthquake shock was felt. The vibrations apparently were from the east to the west, and lasted about five seconds. It was accompanied by a sharp report and a rumbling noise. This rumbling noise was heard for twenty seconds after the shock was felt, and seemed to grow fainter and fainter, like the passing of a railroad train. No damage resulted in this locality from the phenomenon."

MO SPRINGFIELD, 4, Saint Louis Post-Dispatch 1895 Oct. 31, "SPRINGFIELD, Mo., Oct. 31.--At 5:13 this morning a severe earthquake shock was distinctly followed by a rumbling noise lasting full ten seconds, and was followed by a second shock and rumbling noise. No damage has been reported as yet."

MO SPRINGFIELD, 5, Denver Daily News 1895 Nov. 1, "SPRINGFIELD, Mo., Oct. 31.--At 5:13 a.m. a severe earthquake shock was distinctly felt, followed by a rumbling noise lasting fully ten seconds and was followed by a second shock and rumbling noise. Windows in buildings rattled and the office force in the Republican building ran out on the streets in alarm. No damage has been reported as yet."

MO STEFFENVILLE, felt, Marvin, Felt

MO TAYLOR, 8, Denver Daily News 1895 Nov. 1, "Across the river on the Missouri side two houses were shaken down and one woman hurt." [See IL QUINCY.]

MO TRENTON, felt, Marvin, Felt

MO UNIONVILLE, felt, Marvin, Felt

MO VERMONT, felt, Marvin, Felt [Found in Johnson's, 1881, Atlas in Cooper County]

MO VILAS, felt, Marvin, Felt [Cannot find locality, not plotted on plate 1]

MO VIRGIL CITY, felt, Marvin, Felt

MO WARRENSBURG, felt, Marvin, Felt

MO WARRENTON, 5, Saint Louis Post-Dispatch 1895 Oct. 31, "WARRENTON, Mo., Oct. 31.--At 5:30 this morning the citizens of Warrenton and vicinity were awakened by an earthquake, which lasted about fifteen seconds. Dishes glassware, flower pots and windows rattled alarmingly."

- MO WARRENTON, felt, Marvin, Felt
- MO WEBSTER GROVES, 3, Saint Louis Post-Dispatch 1895 Oct. 31,
"Webster Groves reports the shock the severest ever felt out
there. It was noticed at 5:10 a.m., and endured a full
minute. No damage was done."
- MO WEST PLAINS, heavy, Perdue, "Intense."
- MO WILLIAMSVILLE, 5, Saint Louis Post-Dispatch 1895 Oct. 31,
"WILLIAMSVILLE, Mo., Oct. 31.--The most distinct earthquake
shock ever felt here was experienced at 5:30 o'clock this
morning. It shook the largest and most substantial
buildings in the city and rattled stoves, window panes and
dishes in cupboards in all houses in the vicinity. The
shock lasted about one minute."
- MO WILLOW SPRINGS, felt, Marvin, Felt
- MO ZEITONIA, felt, Marvin, Felt [Cannot find locality, not
plotted on plate 1]
- MS ABERDEEN, felt, Marvin, Felt
- MS AUSTIN, felt, Marvin, Felt [Found on 2-degree topo in Tunica
County]
- MS FRENCH CAMP, felt, Marvin, Felt
- MS FULTON, felt, Marvin, Felt
- MS HERNANDO, felt, Marvin, Felt
- MS HOLLY SPRINGS, heavy, Marvin, "Heavy"
- MS LOUISVILLE, felt, Marvin, Felt
- MS MAYERSVILLE, felt, Marvin, Felt
- MS MERIDIAN, 3, Marvin, "Light earthquake shock said to have
been felt in the early morning."
- MS PONTOTOC, felt, Marvin, Felt
- MS VICKSBURG, 4, Marvin, "An earthquake shock was reported,
upon reliable authority, in the vicinity of station at 6.03
a.m. Its duration was fifteen to twenty seconds, and was
apparently continuous. It was accompanied by no unusual
noise. The word moderate would best describe its intensity,
and there was no other cause for what happened than an
earthquake."
- MS WATER VALLEY, felt, Marvin, Felt
- NC ASHEVILLE, 3, Dubuque Iowa Telegraph Herald 1895 Nov. 1,
"Asheville, N.C., Oct. 31.--A slight shock of earthquake was
felt here at six a.m. Thursday. No damage."
- NC CHARLOTTE, 3, Marvin, "An earthquake shock was felt by
several persons in the city at 6.15 this morning, the
vibration lasting about ten seconds. The shock was
extremely light and was felt by so few persons that it was
not positively known that it was an earthquake shock until
in the evening, when dispatches were received by the
newspapers stating that the shock had been noticed at other
points. The direction of the vibration was not noticed."
- NC LENOIR, felt, Marvin, Felt
- NC SKYUKA, felt, Marvin, Felt [Found in Rand-McNally, 1914,
list, mail at Lynn. Not on map; coordinates are for Lynn.
Probably within 0.05 degree of Lynn.]
- NC WAYNESVILLE, felt, Marvin, Felt
- NE BEATRICE, 3, Dubuque Iowa Telegraph Herald 1895 Nov. 1,

"Slight earthquake shocks were felt in...Beatrice...Thursday morning."

NE BURCHARD, felt, Marvin, Felt

NE OMAHA, 3, Dubuque Iowa Telegraph Herald 1895 Nov. 1, "Omaha, Neb., Oct. 31.--Slight earthquake shocks were felt in this city...Thursday morning."

NE OMAHA, 3, Marvin, "Shortly after 6 o'clock this morning a slight earthquake shock was reported by reliable persons to have been felt in this city. The shock was not felt by any of the station force. No damage from the shock was reported."

CH AKRON, 4, Saint Louis Post-Dispatch 1895 Oct. 31, "AKRON, O., Oct. 31.--Two distinct shocks of earthquake were felt here this morning about 5:10. The first was slight, but the second was much more severe. No damage done.

CH BELLEFONTAINE, felt, Marvin, Felt

CH CAMP DENNISON, felt, Marvin, Felt

CH CINCINNATI, 5, Saint Louis Post-Dispatch 1895 Oct. 31, "CINCINNATI, O., Oct. 31.--An earthquake shock was felt here at 5:12 this morning, the most distinct for ten years. It began with a slight tremulous motion that continued for perhaps one minute, and then followed two or three violent undulations, shaking brick buildings and rattling windows. The whole disturbance must have occupied nearly two minutes. It was accompanied by a slight roaring sound, which continued after the shaking ceased.

The first effect was felt about ten minutes after 5, and people in various parts of the city were awakened by the quivering of their beds. Most of those who had telephones convenient immediately called up the central office, and for a few minutes the operators at the central office were kept busy. All reports agreed as to time and the general effect. The operators at the central office felt the floor shake under them and transmitters and other objects rock to and fro.

Mr. Sewick, the Newport druggist, was thrown out of bed, and dazed for several minutes.

Reports of more violent shocks were received from Springfield and other points north.

A newsboy living at 53 West Third street was thrown out of bed and a whole family at Oliver and Linn suffered a like experience. Col. Deitsch, Chief of Police, was thrown out of bed, and immediately communicated with headquarters, where his views of the matter were confirmed.

From best accounts, the undulations were felt from the north. The City Hall was severely shaken, and several persons on duty there ran out. They said the great stone pile swayed on its foundation. The city work-house was also violently shaken, and inmates just getting up were thoroughly alarmed."

CH CINCINNATI, 5, Saint Louis Post-Dispatch 1895 Oct. 31, "Slumberers in Cincinnati suddenly found themselves on the floor."

CH CINCINNATI, 6, Denver Daily News 1895 Nov. 1, "CINCINNATI, Ohio, Oct. 31.--An earthquake shock was felt here at 5:12 this morning, the most distinct for ten years. It began with a slight tremulous motion that continued for perhaps one minute and then followed two or three violent undulations, shaking brick buildings and rattling windows, like some gigantic explosion. The whole demonstration must have occupied nearly two minutes. It was accompanied by a slight roaring sound which continued after the shaking ceased.

The first effect was felt about 5:10, and people in various parts of the city were awakened by the quivering of their beds. Most of those who had telephones convenient immediately called up the central station office and for a few minutes the operators were kept busy. All reports agreed as to time and the general effect. The operators at the central office felt the floor shake under them and transmitters and other objects rock to and fro.

Mr. Sewick, the Newport druggist, was thrown out of bed and dazed for several minutes.

A newsboy living at 58 West Third street, was thrown out of bed, and a whole family at Oliver and Linn suffered a like experience.

Colonel Deitsch, chief of police, was thrown out of bed and immediately communicated with headquarters, where his views of the matter were confirmed. From best accounts the undulations were from the north; the force gradually expended the further north it went.

The city hall was severely shaken. The furniture was thrown about, and several persons on duty there ran out. Those there said the great stone pile swayed on its foundation. The city workhouse was violently shaken, and inmates just getting up were thoroughly alarmed."

CH CINCINNATI, 6, Dubuque Iowa Telegraph Herald 1895 Nov. 1, "Cincinnati, O., Oct. 31.--Several distinct shocks of earthquake were felt in this vicinity just before daylight Thursday morning. The first effect was felt at ten minutes after five o'clock, and people in various parts of the city were awakened by the quivering of their beds. The city hall was severely shaken, the furniture being thrown about, and several persons on duty there ran out."

CH CINCINNATI, 6, Marvin, "An earthquake shock was very generally felt in this city at 6.05 a.m. Two distinct waves of motion, apparently from south to north, were felt in quick succession. Buildings wavered, furniture was moved, windows rattled, and beds (in which most people at that early hour were still resting) rocked like cradles. Clocks were stopped, pointing to 6.05 a.m. While a great deal of alarm and consternation was created by the tremble, no injury or serious damage was sustained."

CH CLEVELAND, 2, Saint Louis Post-Dispatch 1895 Oct. 31, "In Cleveland the swaying of the tall buildings was very perceptible."

- CH CLEVELAND, 4, Saint Louis Post-Dispatch 1895 Oct. 31, "CLEVELAND, O., Oct. 31.--Two severe and distinct earthquake shocks were felt in this city and throughout Northern Ohio shortly after 5 o'clock this morning. Tall buildings swayed perceptibly and the occupants were much alarmed. Each shock lasted nearly a minute and was accompanied by a heavy rumbling. No damage was caused so far as has been learned."
- CH CLEVELAND, felt, Marvin, Felt
- CH COLUMBUS, 3, Saint Louis Post-Dispatch 1895 Oct. 31, "COLUMBUS, O., Oct. 31.--The earthquake shock about 5:15 a. m. was noticed by employes who had risen at the Insane Asylum. Chandeliers showed a pendulum movement. Persons in bed who were awake report feeling the movement distinctly."
- CH COLUMBUS, felt, Dubuque Iowa Telegraph Herald 1895 Nov. 1, "Reports from...Columbus say the shock was felt there."
- CH COLUMBUS, felt, Marvin, Felt
- CH DAYTON, 4, Saint Louis Post-Dispatch 1895 Oct. 31, "DAYTON, O., Oct. 31.--A severe earthquake shock was distinctly felt in this city at 5:12 this morning. Windows were rattled and buildings quivered. It was at first supposed to be a natural gas explosion. No damage done."
- CH DAYTON, 5, Denver Daily News 1895 Nov. 1, "Reports of more violent shocks were received from Springfield, Dayton and other points north [of Cincinnati]."
- CH DAYTON, felt, Dubuque Iowa Telegraph Herald 1895 Nov. 1, "Reports from...Dayton...say the shock was felt there."
- CH DUPONT, felt, Marvin, Felt
- CH FAYETTEVILLE, felt, Marvin, Felt
- CH GALLIPOLIS, 4, Saint Louis Post-Dispatch 1895 Oct. 31, "GALLIPOLIS, O., Oct. 31.--Between 5 and 6 o'clock this morning an earthquake shook the buildings in this city. The shock was very distinct and felt by almost every one."
- CH GREENVILLE, felt, Marvin, Felt
- CH HANGING ROCK, felt, Marvin, Felt
- CH HILLSBORO, felt, Marvin, Felt
- CH LEIPSIC, felt, Marvin, Felt
- CH MC CONNELSVILLE, felt, Marvin, Felt [Changed from MC CONNELLSVILLE to MC CONNELSVILLE]
- CH MONTEPELIER, felt, Marvin, Felt
- CH NEW BREMEN, felt, Marvin, Felt
- CH NEW PARIS, felt, Marvin, Felt
- CH OTTAWA, felt, Marvin, Felt
- CH PORTSMOUTH, felt, Marvin, Felt
- CH SPRINGFIELD, 5, Denver Daily News 1895 Nov. 1, "Reports of more violent shocks were received from Springfield, Dayton and other points north." [See Cincinnati]
- CH SPRINGFIELD, felt, Dubuque Iowa Telegraph Herald 1895 Nov. 1, "Reports from Springfield...say the shock was felt there."
- CH TOLEDO, 3, Marvin, "Earthquake shock felt at 6.12 a.m.; no damage."
- CH TOLEDO, 5, Saint Louis Post-Dispatch 1895 Oct. 31, "TOLEDO, O., Oct. 31.--At 5:30 this morning the earthquake shock

awakened many people. Houses shook, clocks were stopped and chandeliers jingled, but no damage is reported."

- OH VAN WERT, felt, Marvin, Felt
- OH VANCEBURG, felt, Marvin, Felt [Found in Rand-McNally, 1914, list in Brown County, mail at Macon. Not on map; coordinates are for Macon. Probably within 0.05 degree of Vanceburg. Note that there was (and is) another, larger Vanceburg about 55 kilometers southeast of Macon on the 2-degree topo and in Stieler's, 1905, Atlas, on the Kentucky side of the Ohio River at a ferry crossing to the Ohio side. Plotted the Macon location.]
- OH WAVERLY, felt, Marvin, Felt
- OH ZANESVILLE, 6, Denver Daily News 1895 Nov. 1, "ZANESVILLE, Ohio, Oct. 31.--A few minutes after 5 o'clock this morning residents in all parts of the city were aroused by distinct earthquake shocks. It caused residences to tremble violently, in some cases loosening pictures from the walls and causing stove pipes and tinware to fall from their fastenings. Trembling continued half a minute and caused no little alarm. It was the most severe earthquake ever felt in this vicinity."
- OH ZANESVILLE, 6, Saint Louis Post-Dispatch 1895 Oct. 31, "ZANESVILLE, O., Oct. 31.--A few minutes after 5 o'clock this morning residents in all parts of the city were aroused by a distinct earth shock, which caused houses to tremble violently, in some cases loosening pictures from the walls and causing stovepipes and tinware to fall from their fastenings. The trembling continued half a minute. It was the most severe earthquake ever felt in this vicinity."
- OK POND CREEK, light, Marvin, "Slight" [Changed from POND CREEK to POND CREEK]
- ON CHATHAM, 4, Dubuque Iowa Telegraph Herald 1895 Nov. 1, "Chatham, Ont., Oct. 31.--A severe shock of earthquake was felt Thursday morning at six o'clock."
- PA BELLEVUE, 3, Marvin, "A slight earthquake shock was felt at Bellevue and McKeesport, suburbs of Pittsburg, at 6 a.m." [See Pittsburgh]
- PA MC KEESPORT, 3, Dubuque Iowa Telegraph Herald 1895 Nov. 1, "McKeesport, Pa., Oct. 31.--This city was shaken by an earthquake Thursday morning shortly after six o'clock. Two distinct shocks were felt. The vibrations were from east to west."
- PA MC KEESPORT, 3, Marvin, "A slight earthquake shock was felt at Bellevue and McKeesport, suburbs of Pittsburg, at 6 a.m." [See Pittsburgh]
- PA PITTSBURGH, 3, Dubuque Iowa Telegraph Herald 1895 Nov. 1, "Pittsburgh, Pa., Oct. 31.--An earthquake, the first noticeable in this vicinity in many years, was felt at 6:15 o'clock Thursday morning. First reports of its duration and intensity vary."
- PA PITTSBURGH, 5, Marvin, "A slight earthquake shock was felt at Bellevue and McKeesport, suburbs of Pittsburg, at 6 a.m. The shock produced only a very slight jar and a slight

- movement of pictures, etc., hanging on walls, and continued but a few seconds." [Changed from PITTSBURG to PITTSBURGH.]
- PA SEWICKLEY, 5, Dubuque Iowa Telegraph Herald 1895 Nov. 1, "At Sewickley it is said clocks were stopped and windows shaken."
- SC CHARLESTON, 3, Marvin, "Light earthquake shock at 6.04 a.m.; light tremors and vibrations lasting about eight seconds."
- SC COLUMBIA, 3, Marvin, "There was a slight earthquake shock felt between 6.15 and 6.30 a.m. It was not severe enough to awaken persons sleeping, but was very perceptible to those who were awake. The vibrations lasted about thirty seconds, and from the swaying of oil in a lamp by my bedside it was thought that the wave direction was north and south."
- TN ASHWOOD, felt, Marvin, Felt [Found on 2-degree topo in Maury County]
- TN BOLIVAR, felt, Marvin, Felt
- TN CHATTANOOGA, 4, Marvin, "An earthquake shock was felt in this city at 6.10 a.m. to-day; motion east and west; duration of the vibration, thirty seconds. No effect in this city outside of shaking chandeliers, rocking of houses, rattling of windows, and rocking of beds."
- TN CHATTANOOGA, 4, Saint Louis Post-Dispatch 1895 Oct. 31, "CHATTANOOGA, Tenn., Oct. 31.--A heavy shock of earthquake was felt here this morning at about 5 o'clock. Vibration very severe, lasting fully a minute."
- TN CLARKSVILLE, 6, Saint Louis Post-Dispatch 1895 Oct. 31, "CLARKSVILLE, Tenn., Oct. 31.--This morning at 5 o'clock a severe shock of earthquake, continuing over half a minute, was felt over this section, travelling north and south. Slight damage was reported."
- TN COVINGTON, felt, Marvin, Felt
- TN DYERSBURG, felt, Marvin, Felt
- TN FRANKLIN, felt, Marvin, Felt
- TN HOHENWALD, felt, Marvin, Felt
- TN KNOXVILLE, 4, Marvin, "About 6.00 this morning several distinct shocks of earthquake are reported to have been felt all over this city, more particularly on the outskirts of the town. The shocks are reported to have been from east to west and were very perceptible."
- TN KNOXVILLE, 4, Moneymaker, "It was felt at Knoxville, where the intensity was probably about IV [M.M.]."
- TN MC KENZIE, felt, Marvin, Felt
- TN MC MINNVILLE, felt, Marvin, Felt
- TN MEMPHIS, 4, Dubuque Iowa Telegraph Herald 1895 Nov. 1, "Memphis, Tenn., Oct. 31.--A violent earthquake shook Memphis Thursday morning at 5:08. The shock lasted not over a minute. It was preceded by a roar."
- TN MEMPHIS, 5, Saint Louis Post-Dispatch 1895 Oct. 31, "MEMPHIS, Tenn., Oct. 31.--A heavy shock of earthquake was felt here this morning at 5:08. The vibration was from east to west. Houses rocked and people were almost spilled out of bed. The shock lasted about a minute, and was preceded by a rumbling sound."

- TN MEMPHIS, 6, Heinrich, "Several chimneys were reported thrown down in the suburbs of Memphis, Tennessee."
- TN MEMPHIS, 6, Marvin, "An earthquake shock of considerable severity was felt in this city this morning shortly after 6 o'clock. A careful comparison of time by a number of competent observers shows that the vibrations from the first shock ceased at 6 hr. 07 min. 30 sec. a.m., having lasted about thirty seconds. A secondary shock or vibration was observed at 6 hr. 14 min. 00 sec. by a number of reliable observers, though not by all. There was no damage done in this city, except to two chimneys in the suburbs, which were shaken down."
- TN MEMPHIS, 6, Moneymaker, "At...Memphis, Tennessee, several chimneys were thrown down."
- TN MILAN, felt, Marvin, Felt
- TN MOUNT CARMEL, felt, Marvin, Felt
- TN NASHVILLE, 4, Dubuque Iowa Telegraph Herald 1895 Nov. 1, "Nashville, Tenn., Oct. 31.--A short, sharp shock of earthquake was felt here Thursday morning at 5:10 o'clock. The vibration was violent, but lasted only about a half minute."
- TN NASHVILLE, 4, Saint-Louis-Post-Dispatch 1895 Oct. 31, "NASHVILLE, Tenn., Oct. 31.--A sharp earthquake shock was felt here about 5:10 this morning. Vibration quite severe, lasting fully half a minute."
- TN NASHVILLE, felt, Marvin, "An earthquake visited the city about 6.05 a.m."
- TN NASHVILLE, heavy, Perdue, "Intense."
- TN PALMETTO, felt, Marvin, Felt [Found on 2-degree topo in Bedford County]
- TN RIDDLETON, felt, Marvin, Felt
- TN SEWANEE, felt, Marvin, Felt
- TN TRENTON, felt, Marvin, Felt
- TX ABILENE, 0, personal communication from Lisa Byrd, Periodicals Librarian, Abilene Public Library System, "I was unable to find any reference to an earthquake...October 31, 1895...in our Abilene papers. I checked all available sources and also referred to the three college libraries in this area, but all were unable to come up with any reference to said earthquake...Apparently, we did not feel the quake here, as there was no writeup anywhere about it."
- WI BELOIT, 4, Dubuque Iowa Telegraph Herald 1895 Nov. 1, "Beloit, Wis., Oct. 31.--An earthquake shock at five o'clock Thursday morning was perceptibly observed by hundreds of Beloit people. In some instances the inmates prepared to leave the house."
- WI BELOIT, 4, Saint Louis Post-Dispatch 1895 Oct. 31, "BELOIT, Wis., Oct. 31.--Many people were disturbed here at 5 o'clock this morning by a shock of earthquake. Houses trembled for fully twenty seconds."
- WI DE PERE, felt, Marvin, Felt
- WI JANESVILLE, 3, Dubuque Iowa Telegraph Herald 1895 Nov. 1, "Reports are coming in...from towns as far north [of

Chicago] as Janesville, Wis. Chief Operator Willits and the night employes of the Western Union Telegraph company felt the shock."

- WI MILWAUKEE, 5, Dubuque Iowa Telegraph Herald 1895 Nov. 1, "Milwaukee, Oct. 31.--There was a distinct earthquake shock felt in this city between 4:30 and five o'clock Thursday morning. A tremor seemed to pass over the city, which caused the houses to shake and awakened many people. The shock lasted for over a minute, and consternation prevailed among those who had been aroused from their slumbers."
- WI WAUSAU, 2, Nuttli, 1974, map (p. 1207) shows a 2-3 approximately here.
- WV HUNTINGTON, 3, Dubuque Iowa Telegraph Herald 1895 Nov. 1, "Huntington, W. Va., Oct. 31.--A tremor of an earthquake was plainly felt in this city at 13 minutes after six Thursday morning. The quake lasted for at least 30 seconds, but did no damage."
- WV PARKERSBURG, 4, Marvin, "At 6.15 a.m., several (about three) distinct earthquake shocks were felt. The first shock was the most severe, and was followed by long, gentle undulations, having directions from southwest to northeast, as nearly as could be told."
- WV WHEELING, 3, Dubuque Iowa Telegraph Herald 1895 Nov. 1, "Wheeling, W. Va., Oct. 31.--A slight earthquake shock was felt here at six o'clock Thursday morning. It was felt distinctly in all parts of the city, but only lasted a few seconds."

REFERENCES

- Branner, George C. and Hansell, J.M., 1933, Earthquake risks in Arkansas: Arkansas Geological Survey Info. Cir. 4, 14p.
- Bullinger's Guides, Inc., Publishers, 1979, Bullinger's Postal & Shippers Guide for the United States & Canada: Vol. 108, Westwood, New Jersey.
- Bullinger, Edwin W., Publisher, 1876, The Monitor Guide to Post Offices and Railroad Stations in the United States and Canada: Facsimile of the original reprinted in 1976.
- Coffman, J.L. and von Hake, C.A., 1973, Earthquake History of the United States: U.S. Dept. of Commerce National Oceanic and Atmospheric Administration Publication 41-1 (Revised edition, through 1970.)
- Daily News, Friday, November 1, 1895, Denver, Colorado, p.5.
- Girardeau Democrat, November 2, 1895, Cape Girardeau, Missouri.
- Heinrich, R.R., 1941, A contribution to the seismic history of Missouri: Seismological Society of America Bulletin, v.31, p.187-224.
- Johnson, A. J. & Co., Publishers, 1881, Johnson's New Illustrated Family Atlas of the World: A.J. Johnson & Co., Publishers, New York.
- Marvin, C.F., 1895, Report on the earthquake of October 31, 1895: Monthly Weather Review, v.23, p.374-379.
- Moneymaker, Berlen C., 1955, Earthquakes in Tennessee and nearby sections of neighboring states--1851 to 1900: Tennessee Academy of Science Journal, v. 30, p.222-233.
- Nuttli, Otto W., 1973, The Mississippi Valley Earthquakes of 1811 and 1812: Intensities, ground motion and magnitudes: Seismol. Soc. America Bulletin, v. 63, pp. 227-248.
- Nuttli, Otto W., 1974, Magnitude-recurrence relation for central Mississippi valley earthquakes: Seismol. Soc. America Bull., v. 64, p. 1189-1207.
- Perdue, A.H., 1895, The Charleston (Mo.) earthquake: Indiana Academy of Science Proceedings, p.51-53.
- Perthes, Justus, Publisher, 1905, Stieler's Hand-Atlas: Gotha, Germany.
- Post-Dispatch, Thursday, October 31 and November 2, 1895, Saint Louis, Missouri.
- Rand McNally & Company, Publishers, 1914, The Library Atlas of the World, Volume I--United States: Rand McNally & Company, New York.
- Rand McNally & Company, Publishers, 1978, Rand McNally Road Atlas: Rand McNally & Company.
- Rocky Mountain News, November 1, 1895, Denver, Colorado.
- Sampson, F.A., 1913, The New Madrid and other earthquakes of Missouri: Seismological Society of America Bulletin, v.3, p.57-71.
- Stover, C.W., Reagon, B.G., and Algermissen, S.T., 1979, Seismicity map of the state of Missouri: U. S. Geological Survey Mis. Field Studies Map MF-1155.
- Telegraph Herald, Friday, November 1, 1895, Dubuque, Iowa.