Summary of Photographs

Description:	Building on Main St.; Helena MT where 1 death occurred
Source:	Montana Historical Society and MT Bureau of Mines and Geology
Info Categories:	B, P
Description:	Bryant Elementary School; Helena, MT after October 18th
Source:	MT Bureau of Mines and Geology
Info Categories:	B
Description: Source: Info Categories:	Bryant Elementary School; Helena, MT after October 31 st aftershock Montana Historical Society and Montana Bureau B
Description:	Intermountain College Mills Hall
Source:	Montana Bureau of Mines and Geology
Info Categories:	B
Description:	Walker's Garage
Source:	Montana Bureau of Mines and Geology
Info Categories:	B
Description:	H. Earl Clark Filling Station
Source:	Montana Bureau of Mines and Geology
Info Categories:	B
Description:	Two heavily damaged homes
Source:	Montana Bureau of Mines and Geology
Info Categories:	B
Description:	Home with collapsed walls, floor, chimney and porch
Source:	Montana Bureau of Mines and Geology
Info Categories:	B
Description:	National Biscuit Company Factory
Source:	Montana Bureau of Mines and Geology
Info Categories:	B
Description:	New Helena High School after Oct. 31st aftershock
Source:	Montana Bureau of Mines and Geology
Info Categories:	B
Description: Source: Info Categories:	Interior of the new Helena High School after October 31 main shock Montana Bureau of Mines and Geology B

Description: Source: Info Categories:	New Helena High School after Oct. 31st aftershock Montana Bureau of Mines and Geology B
Description: Source: Info Categories:	Failure of brick-veneer walls, Helena, MT Montana Bureau of Mines and Geology B
Description: Source: Info Categories:	Ground cracks and sand deposits at south end of Lake Stanchfield Montana Bureau of Mines and Geology G
Description: Source: Info Categories:	<u>Collapsed building due to failure of masonry walls; Helena, MT</u> Montana Bureau of Mines and Geology B
Description: Source: Info Categories:	Business district near Northern Pacific Depot; Helena, MT Montana Historical Society B
Description: Source: Info Categories:	<u>A train car of liquor crushed by falling warehouse wall; Helena, MT</u> Montana Historical Society B
Description: Source: Info Categories:	Furniture and belongings moved to lawn of severely damaged home; Helena, MT Montana Historical Society B
Description: Source: Info Categories:	<u>One family's temporary shelter; Helena, MT</u> Montana Historical Society A, P
Description: Source: Info Categories:	<u>Tents set up at Camp Cooney for Helena earthquake refugees</u> Montana Historical Society B
Description: Source: Info Categories:	<u>Kessler Brewery after October 31st aftershock; Helena, MT</u> Montana Historical Society B
Description: Source: Info Categories:	<u>Streets of Helena filled with National Guard vehicles</u> Montana Historical Society A
Description: Source: Info Categories:	<u>Severely damaged two-story home; Helena, MT</u> Montana Historical Society B

Description:	<u>Two-story Fisher apartment building with fallen balcony; Helena,</u> MT
Source: Info Categories:	Montana Historical Society B
Description: Source: Info Categories:	Damaged Montana Deaconess School; Helena, MT Montana Historical Society B
Description: Source:	Quigley home with hole in the roof made by falling chimney; Helena, MT Montana Historical Society
Info Categories:	Montana Historical Society B
Description: Source: Info Categories:	Temporary headquarters of police station; Helena, MT Montana Historical Society A, P
Description:	<u>Two-story Reinig duplex with fallen front walls and porch; Helena,</u> MT
Source: Info Categories:	Montana Historical Society B
Description: Source: Info Categories:	Reinig home being rebuilt after the earthquake; Helena, MT Montana Historical Society B, R
Description: Source: Info Categories:	<u>U.S. Armory; Helena, MT</u> Montana Bureau of Mines and Geology B
Description:	Cartoon from The Helena Independent depicting courage to overcome hardships
Source:	Helena Independent newspaper

Info Categories: A

Information Categories

A -- Aid:

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

B -- Building Damage:

structure itself plus windows and chimneys (typically damage visible from outside the building)

E -- Earthquake Description:

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

G -- Geologic Effects:

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

H -- Humor:

I -- **Impact:** changes in daily routine; rumors; influx of reporters, politicians, cost in dollars

L -- Lifelines:

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

N -- Nonstructural Effects:

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

P -- People:

effects on and responses to, during and after; deaths, injuries, near misses

R -- Recovery: clean up, rebuild

S -- Scientific: explanation of the day

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The front wall of the Headquarters Building on South Main Street in Helena, Montana, fell into the middle of the street during the main shock, killing one man. Photo by L.H. Jorud Photographer, Helena, MT.

Photo courtesy of MT Historical Society and MT Bureau of Mines and Geology



Bryant school in Helena, Montana, suffered increasing damage in the series of 1935 earthquakes which began October 12th. This photo shows the school after the main shock on Oct. 18th. Note that the fractures follow the mortar joints. Most of the remaining portion of the wall shown fell during the Oct. 31st aftershock (see next photo.) Photo published by MT Bureau of Mines and Geology in "Memoir 16, The Montana Earthquakes of 1935," by Harold W. Scott.

Courtesy of MT Bureau of Mines and Geology



Bryant Elementary School was further damaged in the October 31st aftershock. Until reconstruction was completed, its 276 students attended school in the basement of Central school. Photo by L.H. Jorud Photographer, Helena, MT.

Courtesy of MT Historical Society and MT Bureau of Mines and Geology



Intermountain Union College's Mills Hall. The October 18th earthquake caused \$20,000 (1935 dollars) in damage to several buildings on this college campus (located on site of present-day Capital Hill Mall). Most of the damage was repaired, and school resumed on October 29th. The aftershock on the 31st rendered the buildings uninhabitable. Soon after, the college was moved to Great Falls, Montana, and never reopened its doors in Helena. Photo by Knudsen and Son Photographers, Helena, MT.

Courtesy of MT Bureau of Mines and Geology



Walker's Garage in Helena, Montana. Photo by Knudsen and Son Photographers, Helena, MT.

Courtesy of MT Bureau of Mines and Geology



H. Earl Clark Filling Station on Helena Avenue had its walls shaken out, leaving the roof sagging on its supports. Several cars in the garage were badly battered. Photo by Knudsen and Son Photographers, Helena, MT.

Courtesy of MT Bureau of Mines and Geology



"Charles Purdy and his wife and two small children were buried alive when the front porch of the house at left, collapsed, at 1717 Boulder Ave. Purdy fought his way free and then dragged out his wife, seriously injured, and the youngsters. Neighbors next door suffered almost equal damage." [The Helena Independent newspaper; 10/22/1935]. Photo by Knudsen and Son Photographers, Helena, MT.

Photo courtesy of MT Bureau of Mines and Geology



The W.J. Wilson home at 1502 Boulder Avenue in Helena, Montana, had its front brick walls pulverized. The porch roof dropped down and furniture was thrown out into the yard during the tremor. [Information from The Helena Independent newspaper, 10/20/1935]. Photo by Knudsen and Son Photographers, Helena, MT.

Photo courtesy of MT Bureau of Mines and Geology



The National Biscuit Company's warehouse on Boulder Avenue in Helena, Montana, was initially damaged in the October 12th foreshock. The main shock on the18th shook out its rear wall, allowing the roof to settle and crash through the structure in many places. [Information from The Helena Independent newspaper; 10/19/1935]. Photo by Knudsen and Son Photographers, Helena, MT.

Courtesy of MT Bureau of Mines and Geology



The new \$500,000 (1935 dollars) Helena High School was the pride of the community when it was dedicated in early October 1935. Two weeks later, the north wing, housing the auditorium and shops, was severely damaged in the main shock. Although modern and fireproof, no earthquake resistance had been built into the building. Helena had not been recognized as an active seismic zone. Photo published by MT Bureau of Mines and Geology in "Memoir 16, The Montana Earthquakes of 1935," by Harold W. Scott.

Photo courtesy of MT Bureau of Mines and Geology



Stairwell and tile partition walls inside the new Helena High School were shattered. This photo was taken after the October 31st aftershock. Photo published by MT Bureau of Mines and Geology in "Memoir 16, The Montana Earthquakes of 1935," by Harold W. Scott.

Photo courtesy of MT Bureau of Mines and Geology



The north wing of Helena High School collapsed during the October 31st aftershock. 25-30 men survived in that building without injury due largely to their foreman who shouted reminders not to run outside. This was a lesson learned as a result of the main shock. The people who had been injured or killed in the main shock were all running out of their buildings and were hit by falling walls, etc. Photo published by MT Bureau of Mines and Geology in "Memoir 16, The Montana Earthquakes of 1935," by Harold W. Scott.

Photo courtesy of MT Bureau of Mines and Geology



Brick veneer walls typically peeled off the wooden frames. Notice that in this building the chimneys still stand and the windows are not broken. Photo published by MT Bureau of Mines and Geology in "Memoir 16, The Montana Earthquakes of 1935," by Harold W. Scott.

Photo courtesy of MT Bureau of Mines and Geology



Ground cracks appeared south of Lake Stanchfield, and water flowed from them for about two hours. Photo published by MT Bureau of Mines and Geology in "Memoir 16, The Montana Earthquakes of 1935," by Harold W. Scott.

Photo courtesy of MT Bureau of Mines and Geology



The heavy frame roof of this building fell to the ground when the masonry walls failed. Photo published by MT Bureau of Mines and Geology in "Memoir 16, The Montana Earthquakes of 1935," by Harold W. Scott.

Photo courtesy of MT Bureau of Mines and Geology



The business district near the Northern Pacific Depot suffered severe building damage during the main shock on October 18th. Photo from MT Historical Society collection.

Photo courtesy of Alison James, Canyon Ferry Limnological Institute, Helena, MT



The warehouse roof of Christie Transfer and Storage fell in, pushing the walls out. One wall tore open a freight car of liquor being unloaded. Photo by L.H. Jorud, Helena, MT; from MT Historical Society collection.

Photo courtesy of Alison James, Canyon Ferry Limnological Institute, Helena, MT



80% of Helena's 3000 homes were damaged, but the majority could be repaired at moderate cost. 500 were left homeless, at least temporarily. 29 homes were totally destroyed. Photo from MT Historical Society collection.

Photo courtesy of Alison James, Canyon Ferry Limnological Institute, Helena, MT



For nearly two weeks, many people lived in tents all over town. Some had no choice due to heavy damage to their homes. Others simply feared being inside during aftershocks. Photo by L.H. Jorud, Helena, MT; from MT Historical Society collection.

Photo courtesy of Alison James, Canyon Ferry Limnological Institute, Helena, MT



To offer emergency relief to people made homeless by the earthquake, the American Red Cross and the Federal Emergency Relief Agency (FERA) set up nearly 100 tents at "Camp Cooney" on the grounds of the National Guard west of the city. Approximately 400 people were housed the first night. Within a week, most found their own accommodations with friends or family out-of-town. Photo by L.H. Jorud, Helena, MT; from MT Historical Society collection.

Photo courtesy of Alison James, Canyon Ferry Limnological Institute, Helena, MT



Two brickmasons on a work crew from Salt Lake City, Utah, were killed during the October 31st aftershock. They were removing a brick tower at the Kessler Brewing Co. when the ground shaking caused the bricks to tumble down. Photo by L.H. Jorud, Helena, MT; from MT Historical Society collection.

Photo courtesy of Alison James, Canyon Ferry Limnological Institute, Helena, MT



National Guard helped maintain order in downtown Helena, Montana, after the earthquake. They kept sightseers away from South Main Street where damaged buildings were a hazard to anyone walking near them. Looting was not a problem in Helena. Photo by L.H. Jorud, Helena, MT; from MT Historical Society collection.

Photo courtesy of Alison James, Canyon Ferry Limnological Institute, Helena, MT



This residence at 1601 Lyndale Avenue, Helena, Montana, illustrates the typical partial failure of a brick bearing-wall dwelling. Photo by L.H. Jorud, Helena, MT; from MT Historical Society collection.

Photo courtesy of Alison James, Canyon Ferry Limnological Institute, Helena, MT



The balcony was ripped off the Fisher Apartments in Helena, Montana. Photo by L.H. Jorud, Helena, MT; from MT Historical Society collection.

Photo courtesy of Alison James, Canyon Ferry Limnological Institute, Helena, MT



The upper brick walls of this dormitory of the Montana Deaconess School were severely damaged. The children (mostly orphans) it housed were uninjured. They were transferred to safer quarters at a neighborhood dance hall. Luckily, no one tried to exit this building during the earthquake! Photo by L.H. Jorud Photographer, Helena, MT.

Photo courtesy of MT Historical Society



During an aftershock on October 23rd, the chimney on the Quigley home in Helena, Montana, fell through the roof of the home and nearly destroyed all of the furniture in the living room, including an expensive piano. Photo by L.H. Jorud Photographer, Helena, MT.

Photo courtesy of MT Historical Society



City Hall was severely damaged in the main shock forcing the Helena fire department and police department into temporary headquarters. The police department operated out of a tent and the "Black Maria" (vehicle belonging to the Placer Hotel). Photo by L.H. Jorud Photographer, Helena, MT.

Photo courtesy of MT Historical Society



A two-story duplex on Rodney Street in Helena, Montana, was seriously damaged with porches and fronts dumped into the yard. Photo by Edward Reinig, Helena, MT.

Photo courtesy of MT Historical Society



The Rodney Street duplex in Helena, Montana, undergoes extensive remodeling during reconstruction after the earthquake. Photo by Edward Reinig, Helena, MT.

Photo courtesy of MT Historical Society



The U.S. Armory building on Warren Street in Helena, Montana, was severely damage. Major Sol Peterson suffered severe head lacerations when he was caught in the collapse as he attempted to run outside.

Photo courtesy of MT Bureau of Mines and Geology



John Powers of Butte, Montana, contributed this cartoon to inspire the people of Helena to meet their problems as their ancestors did during previous disasters. [Published in the Helena Independent newspaper 10/24/1935].