CHICAGO. June 30.—Scientists University and the Uni-Northwestern versity of Chicago are agreed that the sinking of the bed of the Pacific Ocean is responsible for the remarkable earth-

quakes in California and Montana and extending in a lesser degree of severity across the Canadian border.

Professor Goode of the Department of Geography at the University of Chicago says the bed of the Pacific is sinking. Three or four miles out from the coast of Santa Barbara the ocean is three miles deep. He believes there has been a sudden slip in the crust there which a sudden slip in the crust there which is responsible for the earthquake. He

explains it this way:

"Put your foot in the mud and press down. Observe that the displaced mud rises to the ankle. By the same rule something must rise when the sea bed sinks. The solid crust is settling back all the time. The mountains, the cordilera forming the axis of the continent, are too high. They are settling about as a cannon ball would settle in a bed of tar. tar

"This movement explains the cracks in the mountains, the collapse of Santa Barbara, the sudden formation of new lakes and the violent shaking of the Southern California coast from its doz-ing in the yellow splendor."

Professor Goode takes it for granted that the California and Montana quakes were part of the same movement, and he predicts these earthquakes will continue from the Gulf to Alaska, all down the Pacific Coast to Mexican points, for centuries. Across the ocean he believes Japan may be assured of being shaken by tremblors at frequent intervals for a great many years. While the sudden shifting of the earthquake's crust may be a matter of but a few feet or a few inches in a small area, it is sufficient to throw down a city that happens to be in the vicinity, he declares.

Dr. U. S. Grant. head of the Depart-

Dr. U. S. Grant, head of the Department of Geology and Geography at Northwestern University, does not agree with Professor Goode that the same tremblores shook Montana and California. His maps show a dead "fault" running west from Santa Barbara through the town of Elwood, fifteen miles away. He says this hears out the through the town of Elwood, fifteen miles away. He says this bears out the contention of Professor Bailey Willis and Dr. H. D. Townley of Leland Stanford University that the Santa Barbara quake was largely a local demonstration. "fault" This is an earthquake rift

which has not been active in recent historic times. Dr. Grant thinks it prob-

able that the earthquake followed ancient rift. "On the other hand," he said, "the ault which caused the San Francisco 'fault' earthquake nearly twenty years ago was an active rift running northwest from Lower California up through San Francisco, into the sea and thence to Alaska. That earthquake doubtless may have produced a condition which resulted in

the subterranean readjustments at and near Santa Barbara, but I see no reason, with the evidence before us, to link the Montana earthquake with the one in California." Says Montana Quake Was More Severe. Dr. Chester A. Reeds, geologist of the

American Museum of Natural History. said yesterday that the Montana earthquake of last Saturday was much heavier than the shock which worked such

havoc in Santa Barbara.

"It happened that the earthquake in Southern California struck a centre of population, while that in the Rocky Mountains did not involve any city with large buildings," he said. "The seismograph shows that the one that did little damage was much more severe. That is often the case, of course, as it is only occasionally that a city happens to be located where the disturbance is worst."

Opera Benefit for Quake Victims. Fifty per cent. of the gate receipts for

the opening performance of "H. M. S. Pinafore," which will be revived by the Municipal Opera Company, Inc., will be turned over to the Relief Committee for sufferers in the Santa Barbara earthquake, directors of the company announced last night. In a telegram sent to Mayor Andrea of Santa Barbara Tom Burke, manager of the opera company, said: "Accept our sympathy to sufferers. Have instructed Ralph Steinberg, business manager, to contribute 50 per ance July 22 in revival of "H. M. S. Pinafore." Wire name Relief Committee Chairman." 0 per M. S. tee Chairman."