Could An Earthquake Hit

Is Our Landmass Safe or. **Merely Complacent?**

New findings indicate similar geological zones to the Northwest have experienced large earthquakes.

Portland?

The ancient Greeks thought that when Atlas shifted the weight of the world he was carrying on his shoulders, the earth shook. Many religious groups through the centuries have thought that God was punishing mankind when an earthquake hit. In 1760, an English geologist, John Mitchell, stated earthquakes were from the movement of underground rocks, and in 1859, Irish engineer, Robert Mallet, indicated that strain in the earth's crust caused earthquakes

earthquake registering 8.3. But, the Northwest has no physical recording of an earthquake of this type of magnitude. Monitoring devices now trained on the subduction zones in our area have failed to detect even a tremor

What is unique about the Cascadian subduction zone that includes Washington and Oregon and stretches from British Columbia to Northern California? Since the Juan de Fuca plate is composed of relatively young material, does this mean that it is more malleable and therefore slides under the North American plate without the grinding and jerking friction that re-



These two cedar snags - protruding through a brackish-water marsh of Willapa Bay, southwest Washington - are among the evidence that great earthquakes occur in the Pacific Northwest. The snags record a kind of coastal downdropping that often accom-

Twentieth century scientists have now determined that the cause of most earthquakes is based on the 1960 theory of Plate Tectonic's. The Plate Tectonic theory states that the earth's outer 60 mile shell is made of separate rigid blocks or plates which move. As the plates move, they press and grind against each other. The result is a major upheaval in the earth's surface.

Oregon and Washington sit complacently on the edge of a huge plate of the earth's crust that includes the North American continent. Not far offshore, this North American plate rides over a smaller plate system called Juan de Fuca. As the North American plate moves, it is forcing this smaller plate into the depths of the earth's mantle in a process called subduction

At locations like this around the world where plates meet, the tremendous pressure created as these plates collide and slide across each other results in powerful earthquakes such as the quake that rocked Alaska in 1964 with a magnitude of 8.5 on the Richter scale. San Francisco as a part of the 750 mile long San Andreas fault was demolished in 1906 with an



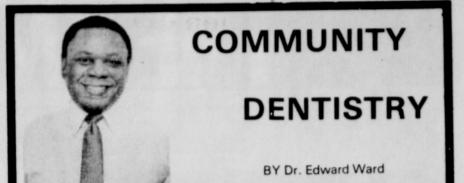
panies earthquakes of magnitude 8 to 9. Brian Atwater, of the U.S. Geological Survey in Seattle, discussed the Northwest's earthquake history last Friday evening, October 2, at the Oregon Museum of Science and Industry. The man in the photograph is David Yamaguchi, of the USGS in Vancouver.

sults in earthquakes at other subduction zones? Or, do we have all the information?

Thomas H. Heaton, a geophysicist with the U.S. Geological Survey in Pasedena, California and Brian F. Atwater of the U.S. Geological Survey in Seattle, will describe new findings that indicate that the Northwest is a viable earthquake zone. Heaton and his colleagues are comparing the activity of the Cascadian subduction zone with geologically similar zones around the world. They have concluded that most of the like-regions studied, have had large earthquakes. Studies of these earthquakes have led to predictions of the likelihood and the possible magnitude of an earthquake of major proportions to hit the Northwest.

In fact, newly discovered evidence in the geological record indicates that several large-scale earthquakes may have rocked the Northwest in prehistoric times. Dr. Atwater has found signs that indicate the rapid sinking of large sections of the Washington coast - subsidence, that often accompanies earthquakes, have occurred at least six times in the last 7,000 years. This type of subsidence, a sinking of the earth's surface, often accompanies earthquakes.

Could the recent lack of seismic activity from the Cascadia subduction zone indicate that the North American and Juan de Fuca plates are locked together instead of sliding smoothly? If so, could a break in this tension result in a cataclysmic earthquake? Is the Northwest geologically unique, or are we merely enjoying a false complacency? Tickets for non-members are \$4.00 for adults and \$2.50 for seniors and students ages 3 to 17. Tickets for members are \$3.50 for adults and \$2.00 for seniors and students. For more information, call OMSI: (503) 222-2828



October 7, 1987, Portland Observer, Page 5

Root Canal Therapy Saves Teeth

Let's enter the world of root canal therapy where very ill teeth can be saved and extractions prevented. The thought of having a nerve removed from anywhere sounds terrible and strikes fear into the hearts of men. The thought of having a nerve removed from a place so near the brain sends shudders up most spines. There are the feelings, fears and thoughts that we tend to have about the unknown.

Some patients would prefer to have the tooth removed, when in reality what they really want is to have the discomfort removed. Patients talk about the tooth as though it is surely their arch enemy and is out to get them.

Root canal therapy can allow a patient to be free of discomfort and maintain the tooth. Surgical removal of a tooth is more traumatic to the tissues around a tooth and requires a much longer healing time.

Some patients ask me, what exactly is a root canal. Dentists refer to root canals as "root canal therapy", "endodentia", and "endodentric therapy."

Root canals are done whenever there is nerve death in the tooth caused by decay that can't be repaired by normal filling, by the tooth being broken, or by the tooth being knocked out or jarred badly. Even teeth that cause discomfort or are abcessed can be saved by root canal therapy.

Root canal therapy can be done in one visit or in three visits. On the first visit after the tooth (nerve) is anesthetized (numbed), the dentist enters into the crown of the sick tooth with an instrument. After reaching the area inside the tooth where the nerve tissue is located, the dentist removes all the nerve tissue in the crown portion of the tooth and in the root portion of the tooth, thus relieving the patient of discomfort. After the nerve is removed, which is usually confortable for the patient, the dentist usually places a medication in the area where the nerve was and seals the tooth with a temporary filling.

On the next appointment, the temporary filling is removed and the canal walls which held the nerves are filed and smoothed of tissue particles and shaped. After the canals have been prepared, a claylike material is placed where the nerve was removed and packed tightly to prevent further infection

After this, the hole in the tooth is usually filled to prevent the crown of the tooth from breaking. Sometimes the dentist will make a crown for the tooth.

If you have a tooth that may require a root canal, do not request that it be extracted. Find out if the tooth can be saved. If it can be saved, remember that in the long run you save money, comfort and your oral health. Keep smiling.

Dr. Ward's office is located in downtown Portland: 610 SW Alder, Suite 1008, Portland, OR.

Kids' Day Off-October

Fulton Park Community Center, 68 S.W. Miles, 9 a.m. to 5 p.m., ages 5 to 11. Meet at Fulton for arts, crafts, and games. Then ride Tri-Met to Mt. Scott Community Center for rollerskating. Have pizza for lunch and return to Markham Community School for a movie and popcorn. The fee is \$18.00, which includes all admission and transportation fees.

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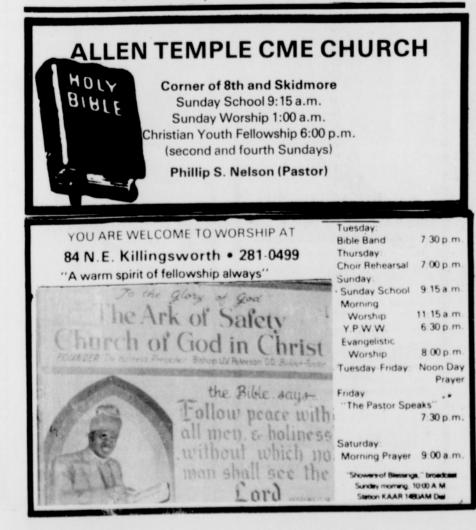
The Leggett Brothers



DATE: October 9, 1987 TIME: 7:00 p.m. PLACE: Church of the Living God 6401 N.E. 10th St.

FOR INFORMATION: 287-4430 DONATION: \$5.00 at the door

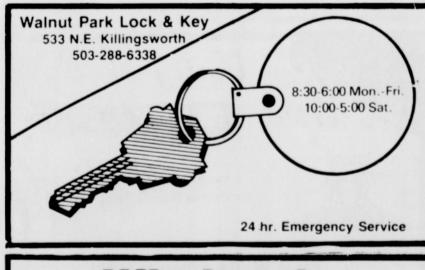
HOST PASTOR: Elder Roy Maxie



Public Service Announcement

Add to your art collection, have a fabulous evening and help fund care desperately needed for AIDS patients at Portland's first annual ART/ AIDS Benefit. Over 300 artists and 28 galleries are participating in ART/ AIDS Gallery Walk and sale. Finish with a "Visual Experience" and refreshments in the Oregon Art Institute's Sculpture Court. All proceeds will be used to provide long-term care and education about AIDS. ART/AIDS, 4:00 p.m., Sunday, October 11.

For ticket information, call Powell's Bookstore, 228-1108.





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