

SEISMOLOGY

Himalaya "Growing Pains" Blamed For India Quake

"**G**ROWING pains" in the most tremendous mountain system in the world, which is still getting bigger, are probably responsible for the recent disastrous earthquake in northern India. The whole south slope of the great Asian mountain mass is a very active seismic region, and shakedowns of major intensity, such as always accompany the upfolding of mountain ranges, can be expected there at any time.

It is just short of an even generation since the last major earthquake in that neighborhood. In 1905 occurred the great Kangra quake, which was strongly felt in Simla, summer capital of British India.

Major earthquakes in northern India might have been more frequent in recent decades, but for the relief to internal strains in the earth's crust that must have been afforded by the exceedingly severe Assam quake of 1897, in the opinion of Capt. N. H. Heck of the U. S. Coast and Geodetic Survey. This was the most terrific earthquake recorded in the history of the world. It was felt over two and a quarter million square miles, and caused total destruction of all buildings in an area of

12,500 square miles. The tremors it sent through the earth were visible on lake surfaces in Europe.

Other and more recent earthquakes traceable to growth movements of the Himalaya system have caused widespread death and destruction in Burma.

Earthquakes are always most frequent and most severe in regions where the earth's crust is being wrinkled and folded to form mountains. The younger the mountains the greater the seismic activity. Thus, earthquakes have been few and far between in the eastern United States, where the mountain systems are old. The Rockies, which might be classified as mountains in early middle age, are the scene of occasional quakes, while the Pacific coast, with its young and actively growing Coast Range infants, have earthquakes with considerable frequency. The great mountain arc that starts in Alaska and swings down the western shore of the Pacific through Kamchatka, Japan and the Philippines, is one of the most actively growing mountain regions of the world, and also one of the most lively of the earth's earthquake zones.

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ANATOMY

Anatomist Finds Way to Measure Inside of Skull

THE FIRST instrument enabling science to measure accurately the interior of the human skull has been invented, scientists hope.

In a demonstration before the Royal Anthropological Institute, London, the inventor of the instrument, Dr. K. Wagner, assistant professor of anatomy at Oslo University, showed that previous views about the asymmetry of the human skull may be revised.

The difference in size and shape of the two hemispheres of the brain is an important feature of anatomy which has never been completely explained. The interior of the skullcap, which fits

neatly over the brain, shows these irregularities.

Dr. Wagner's instrument consists of a metal bar, from the end of which slightly flexible arms project. When inserted within a skull, the adjustable arms give the measurement, which is read directly from a scale on a bar. A small mirror on the instrument enables accurate placing of the arm ends against the bone.

Dr. Wagner told of examining 369 skulls of Norwegians, Lapps, Eskimos, Maoris, and Australians. His tentative report is that the typical human skull is asymmetrical by having the left hemisphere longer and the right hemisphere

broader. This finding differs from previous scientific reports on Egyptian skulls, which were made with calipers and were admittedly unsatisfactory.

Many British scientists, expressing interest in the new device, urged renewed efforts to solve the mysteries of asymmetry.

Wilfred Le Gros Clark, professor of anatomy at St. Thomas' Hospital, reported researches on asymmetry begun in Borneo fourteen years ago. His studies stress three factors as linked with brain and skull shape. These are right-handedness, distribution of the veins, and a characteristic skew which is found in the Chinese brain. Dr. Clark mentioned observing forehead veins in men who had been playing tennis, and finding that in 14 out of 19 men, the last forehead vein on the right was more prominent.

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PHYSIOLOGY

Soda Not Secret Of Male Sex in Rats

PROSPECTIVE mothers who desire that the baby be a boy should not put reliance in a widely heralded claim that additions of baking soda to their food will cause a male child to be born.

Prof. Fred E. D'Amour of the University of Denver at Denver, Colo., has tested the theory in extensive experimentation with rats and finds that the feeding of sodium bicarbonate has no effect on the sex ratio of the rat offspring. His report appears in *Science*.

Although there appeared to be no physiological basis for the claim that ingestion of sodium bicarbonate during pregnancy causes the birth of males exclusively, both in the human and in the dog, Prof. D'Amour decided to test the idea. An increase in the size of his experimental rat colony was needed and the baking soda experiment was made as an incidental, but carefully controlled, procedure.

In 35 litters produced from parents who were fed sodium bicarbonate the sex ratio was 115 females to 110 males. In 38 litters fed lactic or sour milk acid in contrast to the basic soda diet, the sex ratio was 117 females to 100 males. In 14 control litters on regular diet, the sex ratio was 103 females to 100 males. The soda and acid were added to the regular rat menu to the extent of $2\frac{1}{2}$ and 5 per cent.

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