

SEISMOLOGY

World-Shaking Earthquakes Number Six During July

JULY'S sixth earthquake of world-shaking proportions, recorded on July 26, was located in Japan, probably north-east of Tokyo.

Through seismological reports to Science Service from observatories of the U. S. Coast and Geodetic Survey at Ukiah and Honolulu, the Dominion Meteorological Observatory at Victoria, B. C. and Fordham University, the experts at the Coast and Geodetic Survey determined the shock's location.

July's unusually active period of earthquakes began with two oceanic shocks on July 1. Another quake occurred off the Mexican coast on July 11, the region of Fairbanks, Alaska, was shaken July 22, while Mexico was the scene of a quake on July 25.

(Time of quake: Eastern Standard Time: Monday, July 26, 2:56.6 p. m. Japanese Time: Tuesday, July 27, 4:56.6 a. m. Provisional location: 39N 141E.)

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METEOROLOGY

Weather Men Challenged To Explain When Wrong

"WRONG again. What's your alibi this time?"

That's what weather men are likely to hear from inquiring local reporters, if general adoption meets a suggestion in the quarterly, *Thought*, made by H. D. Grant, himself a meteorologist of long experience in the service of the British Navy. Mr. Grant thinks forecasters ought to come out and tell why, when they "guess wrong."

"Nothing is more exasperating," he says, "than to read the Government weather forecast of 'fair and warmer' and be caught in a cold rainstorm a few hours later—or to put on rubbers, raincoat and take along the umbrella to the office, and by noontime find it bright, warm and sunshiny."

(It all sounds very, very London, doesn't it?)

"When a forecast has gone very far wrong," continues Mr. Grant, "the Weather Bureau, in its next forecast, would do well to explain why. Such an explanation would be of great interest to many and would be of considerable educational value. Moreover, it would teach the public something of the difficulties the forecaster has to contend with, and make them more lenient when official forecasts are unsuccessful."

Thus we see that there is something more in it than just the British instinct to do the sporting thing.

The idea might very well be extended, and the Weather Bureau invited to explain why they were right as well as why they were wrong. It looks like a sure-fire possibility for a good local daily feature for newspapers—for it would have to be done particularly for each city; conditions and forecasts are so different from place to place over a big country like ours. But the local weather man could tell an intelligent reporter his daily success story (or alibi) in no more time than it would take to sip a glass of cooling beverage.

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MEDICINE

New Drug Saves Life and Limb From Gas Gangrene

PRESENT pet of the physician is sulfanilamide, or prontosil, a new drug. A recent discovery about sulfanilamide is that it has dramatic value in saving life and limb in cases of gas gangrene.

The amazing results of the use of this drug in a desperate case of gas gangrene following a compound fracture are related by Dr. Harold R. Bohlman of Johns Hopkins Medical School (*Journal, American Medical Association*, July 24.)

Two other cases, less desperate than the first, confirm the speedy and satisfactory results that follow the use of the drug after severe and crushing injuries in which infection with gas bacilli has occurred.

"Sensible, conservative surgical principles should be combined with the use of sulfanilamide," declares Dr. Bohlman.

During the war about half of the amputations in a certain base hospital were for gas gangrene, Dr. Bohlman states.

Nowadays automobile accidents produce so many fractured limbs that this new drug has tremendous life-saving possibilities.

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METEOROLOGY

Hawaii Has Small Chance For Having a Big Wind

HAWAII can go California one better when it comes to weather-bragging. Storm probabilities calculated by meteorologists of the U. S. Weather Bureau indicate that the chances for a 64-mile gale are less than 1 in 100, while a hurricane can be expected "practically never."

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IN SCIENCE

GENERAL SCIENCE

Children Do Research With Professional Methods

THOUSANDS of boys and girls throughout the land are doing scientific research as a serious hobby, working with the enthusiasm and methods of professional scientists, Dr. Gerald Wendt, director of the American Institute of the City of New York, revealed in a Science Service radio talk over the Columbia Broadcasting System.

One science club in a New York School tacked over its little club room the sign: "Life begins at 3:45," the hour when school is dismissed.

Dr. Wendt told of Francine who experimented with the effect of coffee, alcohol, aspirin and strychnine on the action of a frog's muscles, Joyce, who persuaded her father and mother to give her drops of their blood several times a day so that she could study the effect of fatigue, meals and excitement on the composition of the blood, and Eugene, who made a practical stroboscope out of such wood, metal and glass as he could pick up.

"The children do their experiments," Dr. Wendt said, "just because the quest is fascinating, not because there is profit in it, not because it is a fad that everyone is talking about, not because they were told to do it or told how to do it, but just because at that moment their entire spirit is fired with the divine urge to discover and to create. It is perfectly obvious that these boys and girls will meet life on its own terms. When they finish school they will use their hands, their intelligence, and their enthusiasm to create what their spirit has seen."

"Whatever our sphere in life, whatever the technique of our particular job, it is this creative power that reveals the human race at its best, and, incidentally, gives the greatest satisfactions in life."

The American Institute, which traces its history back over a hundred years, is sponsoring the development of the amateur science clubs for New York's boys and girls.

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E FIELDS

PALEOBOTANY

Water-Lily Pollen Found In a Scotch Coal Seam

FOSSIL grains of water-lily pollen have been found abundantly in a Scottish coal seam, along with pollen of trees of the spruce family and some of magnolias, by John B. Simpson of the Geological Survey Office in Edinburgh. The coal is of Jurassic age, that is, it was formed during the earlier part of the days of the dinosaurs.

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MENTAL HYGIENE

Moodiness Seen As Preventive of Boredom

MOODINESS may not seem a desirable trait, but within limits it has its value. Among other things, it keeps us from being bored and from being bores.

The person who runs along on an even keel, temperamentally, may be easy to live with but he is apt to be unsympathetic and uninteresting. If you have had a good case of the blues yourself, you can be more tolerant of another's mood of depression, and if you occasionally get very high yourself, you are not so irritated by an overly gay person.

The value for personality development of changes in mood was recently stressed by Dr. Conrad S. Sommer, medical director of the Illinois Society for Mental Hygiene. Dr. Sommer also pointed out that persons who experience mild changes in mood are better able to understand and enjoy a range of moods not only in other people but in music, literature, clothes, the weather and all of life.

A depressed mood is further valuable as a warning of fatigue or strain. It should be properly interpreted, however, and an effort made to relieve the depression by relieving the strain, not by resorting to stimulants. The latter can have only a temporarily elevating effect and may leave you worse off than before.

To be happily in love, Dr. Sommer says, is one of the best cures for moodiness. This is not merely a humorous

quip. Ambition, he believes, is causing many people to make unwise sacrifices of romantic happiness. A balance between work, love and recreation steadies the mood, conserves energy and strength, and leads to serenity.

Serious depression and exhaustion need medical attention. They may be due to unconscious effort to bury and forget past unhappy experiences. Psychiatrists believe it is better to bring these painful memories out into the open and learn to understand them.

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METALLURGY

15 Research Fellowships To Aid Study of Silver

FIFTEEN research fellowships have been designated in nine of America's leading colleges and universities to study new uses for silver, it is announced by Dr. Lyman J. Briggs, director of the National Bureau of Standards.

The fellowship system attempts to bring a number of minds, expert in individual specialties, to bear on the various angles of a major problem and at the same time bridge the gap between the universities and industry.

The silver fellowship system will center in the National Bureau of Standards where three men have been assigned to physical and metallurgical problems. This center also will provide a clearing house for information and research progress reported by the 15 research fellows.

Backers of the project are the principal silver interests of the nation. The new fellowships are based on the encouraging leads supplied in a preliminary survey during the last few years, which disclosed unexploited uses, and hints for uses, of the precious metal.

Many fields of endeavor will be covered by the fellowships. Four fellows will work at the University of Pennsylvania, two in medicine and two in chemistry. Cornell will have one fellow working on agricultural applications of silver. One at Lehigh will study the physical chemistry phases of the problem. Another at Columbia will investigate corrosion prevention. Two at Indiana will study the electrochemical problems. For applications of silver to metallurgy and electrical engineering Massachusetts Institute of Technology and Rensselaer Polytechnic Institute have been chosen as the scenes of research, while mechanical engineering uses will be studied at Battelle Memorial Institute.

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PSYCHOLOGY

Medium May Be Continuing Childish Imaginary Friend

THOSE mediums who are not frauds, but genuinely believe that they hear the voices of spirits, may be the victims of imaginary companions, Dr. Philip L. Harriman, of Bucknell University, suggests. (*American Journal of Orthopsychiatry*, July).

About a third of the children between three and eight or nine years of age enjoy the company of such imaginary companions, excellent descriptions of which appear in the novel "Anthony Adverse" and Milne's "Binker," Dr. Harriman says. More older persons indulge in this phantasy than has hitherto been suspected.

Real playmates usually cause the gradual disappearance of these phantom associates, but occasionally they go with the child through high school and even into adult life.

Among college students who reported long continuation of the phantasy companion, some had created an individual of the hero type with whom they competed in athletic sports or in class or extra-curricular activity.

"Another man student reports that his imaginary companion came into existence when he was 12 or 13," said Dr. Harriman. "The companion was a beautiful girl with a romantic name of Marie Van Arsdale. At 14 years of age he saw Sari Maritza in the motion pictures and then forsook Marie for her. He made believe that he rescued Sari from savages, and then he built a stone fortress for her. This edifice still stands on a wooded knoll behind his home.

"Somewhat concerned by teachers' reports of inattention in high school, his parents presented him with an automobile. This new possession opened up interests in the world of reality, and he ceased to divert himself with an imaginary loved one."

Since the students who reported clinging to such imaginary companions were all superior in college English, it is tempting to conjecture a relationship between such imaginative play and creative ability in writing, Dr. Harriman suggests. No little inspiration for narrative prose and poetry may come from dalliance with an imaginary associate.

"In none of the individuals who supplied data for this report was there the slightest evidence that any evident harm had resulted from this phantasy," declared Dr. Harriman.

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