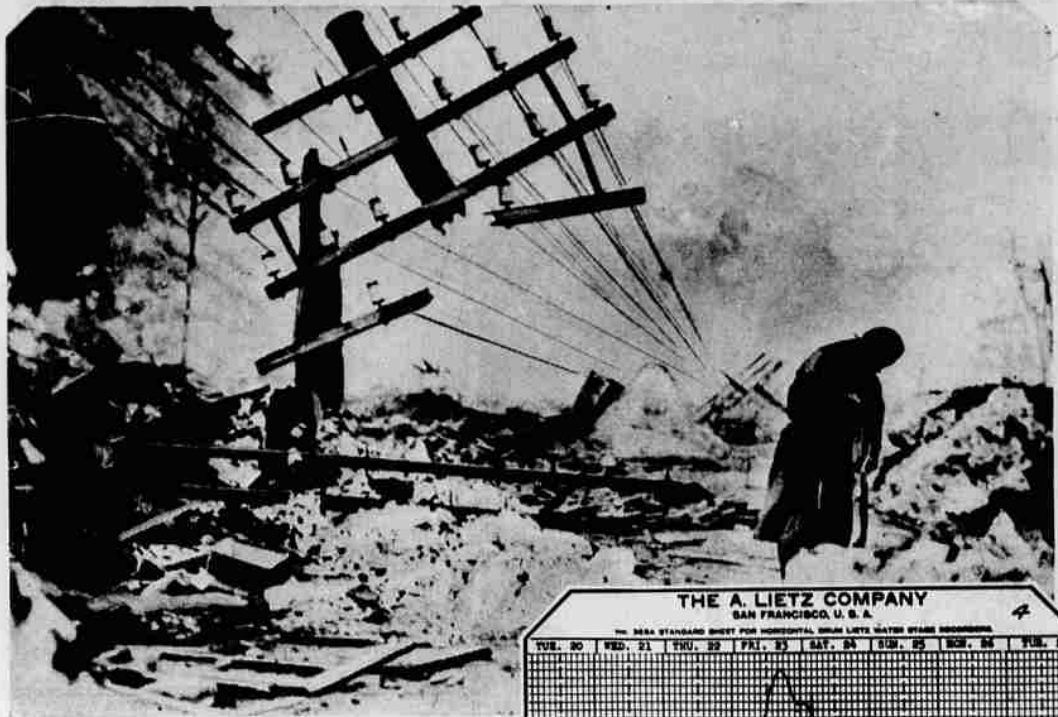
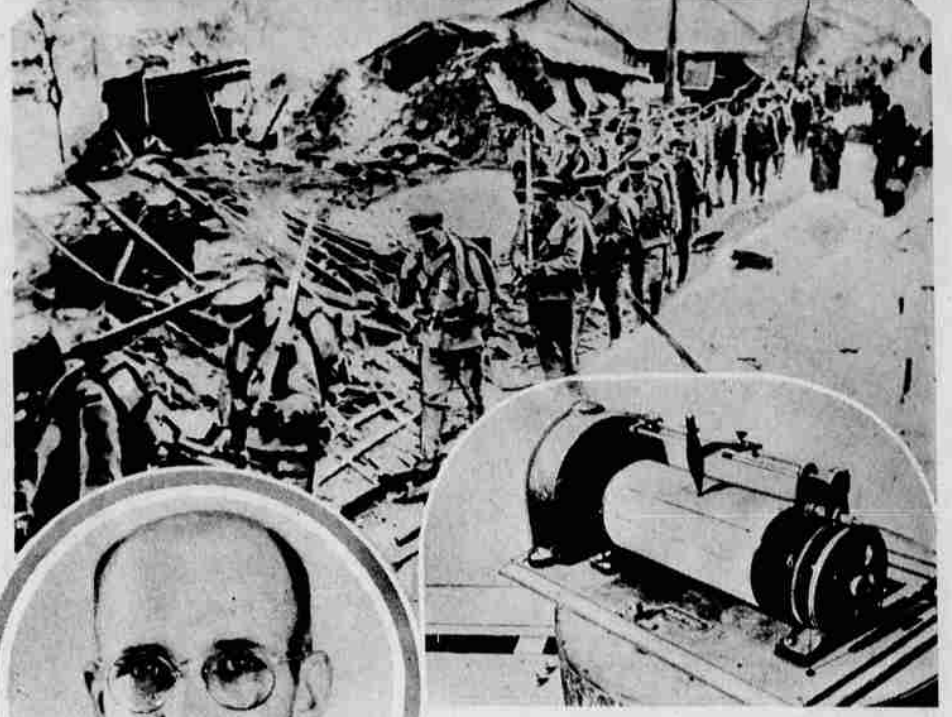


Mystery Water Well Charts Temblors Throughout World



An earthquake hits Japan, leaving behind scenes such as are pictured above—and a Los Angeles water well records the disasters with the accuracy of a seismograph! Scientists are endeavoring to discover the secret of this hitherto unheard-of phenomena. Lower left is one of the charts used to measure the daily water level of the well. Notice the sudden rise of the ink line—which, in this case, recorded an earthquake 4000 miles west. Right is the water level recording apparatus atop the well, which draws the graphs. In circle is D. A. Lane, who tells the story.



Women No Longer Shadows of Great Men, Says Socialite

Points to Change Since Rameses II Built Wife's Statue Quarter Size

THIS is a new age for women! No longer will they be the shadows of great men. Thus declares Mrs. George Kohn, socialite, whose hobby is globe trotting and adventuring in strange lands, and who has made a study of women's new freedom as compared with women all over the world of former generations.

By Mrs. George Kohn
(As told to staff writer)

IT IS almost impossible to realize the difference in the economic status of women today as compared with the women of former generations. In my travels I have made a study of this subject and find that never before in the history of the world have women made such great strides toward the new freedom.

When I was in Egypt last I found the statue of Rameses II in the Temple of Luxor most interesting. I thought to myself, how humble was his little queen!

According to the story told in upper Egypt, he worshipped her, but his male ego wouldn't let him have their statues made the same size.

I have noticed that women of the United States who have had the advantages of wealth and position are turning more and more to careers. I have many friends of financial importance whose daughters, weary of the social round, prefer to do something constructive in the world and have succeeded.

THE clever girl today will turn her interests to achievements, for the day when women existed merely as shadows of great men is past. Women



Mrs. George Kohn, left, who discusses herein changes in woman's status since days of Rameses II. Right is statue of Pharaoh with miniature of wife at feet.

have discovered that they too may achieve and are doing marvelous things. This is as it should be.

The girl who dreams of marrying and doing nothing is the girl who has not had advantages and who is so glad to marry into importance so that she may flaunt her victory.

On the other hand, the cultured, well-educated girls of wealth are planning constructive lives, not alone for themselves, but for the city they live in. They give up time and money to better conditions, and aid in civic and charity work.

In Egypt, however, the days of Nefert-Ari are not yet past, although they are striving for more freedom, they have a long way ahead of them and would like to imitate the women of the United States.

Scientists Puzzled by Accurate Seismological Story Traced by Water Level-Recording Device—Water Surges Upward When Earthquakes Occur

By D. A. LANE
Engineer, Underground Water Development Division,
Los Angeles Municipal Water Bureau.
(As told to GERALD B. BURTONNETT)

THE earth quakes in Montana, New York, far off India—and a water well in Los Angeles surges excitedly while a revolving drum and a pencil record every tremor caused by the temblors thousands of miles away!

The water level story of earthquakes written on the chart that keeps minute by minute track of the city of Los Angeles' deep water wells in the San Fernando valley has been checked with the data of seismologists in Washington and proved remarkably accurate.

Two miles south of the City of San Fernando, reaching to a depth of 500 feet, is well No. 104. It is one of several hundred privately-owned wells maintained for industrial and agricultural use. But its water level fluctuations are observed by the city water bureau.

Due either to its depth, or because it penetrates a structure particularly sensitive to temblors, this well is our best shock recorder. The fact that makes us think structure may have something to do with the effects noted is that the "airport" well just south of the Grand Central Air Terminal is our second best reporter. It is almost on a straight line with No. 104.

The water level in 104 stands at 240 feet most of the time.

HERE is what happens when an earthquake occurs in some remote corner of the globe. The pencil on the water stage recorder begins to jerk with a slow and steady motion upon the face of the chart. From observation we have learned that there is often a six-second interval between the movements which are the result of earth vibrations.

In the case of the great Japanese earthquake of March 2, 1933, the pencil began its weaving exactly 12 minutes after the heaviest shock hit Nippon, a fact which checks with seismological calculations from Washington and elsewhere. Our records disclose that Los Angeles water wells felt the shock at 2:35 a. m., Japan time.

It was written down here at 9:35 a. m., Pacific standard time, and the distance from Los Angeles is about 4792 miles west!

On the chart the permanent record is seen as a series of three horizontal lines, revealing that two shocks of lesser intensity followed the first. From 9:35 a. m. until almost noon of that day, the underground vibrations continued to agitate our water wells.

Another interesting record shows the effect of the violent quake that shattered buildings and killed many people in India on January 15 of this year. The registration of the shocks was made here at 1:30 a. m., Pacific standard time, but they began in India at 2:39 p. m. This data also checks with other observations.

DISCOVERED quite accidentally by P. P. Odekirk, Bureau hydrographer, the first strange markings on the charts were believed to be a failure of the water stage recorder. By chance the relation of the marks to an earthquake reported in the newspapers was noticed. The coincidence inspired

inquiries to the seismological laboratories in Washington.

Astonished by the accuracy of our unaccounted-for markings, we began to develop a new interest in the formerly prosaic task of caring for our machines.

Odekirk has been fortunate enough to be present at a well while an earthquake was occurring and to observe the movement of the instrument. He was changing the graph paper on the revolving drum of the machine when the pencil, which normally would require several minutes to move up or down, began a fairly rapid motion.

He began to tinker with the machine, thinking it was at fault when he suddenly realized that he was seeing enacted before him the written drama of an earthquake.

He stayed on as an observer for an hour when the motion stopped and the pencil resumed its normal course. Several hundred feet below him the water in the well had been surging up and down in the pipe to the same rhythm as the far away temblor.

The movement of the pencil on the chart is activated by impulses originating from earth movements and causing the water to rise and fall. The machine itself is practically vibration-proof, being welded into a solid base. Recently a widespread interest has developed in the data we have acquired. Arrangements have been made for interchange of information with other water well operators in various parts of the State as well as with the Federal government.

S. B. MORRIS, chief engineer of the Pasadena city water department, has devoted a lot of time to study on the subject. In a recent paper read before a seismologists' convention at the University of California in Los Angeles he reported that the principal cause of water level surges during earthquake oscillations is due to the alternate compression and release of the earth strata as elastic waves from the center of shock pass through the ground.

Picture the globe as a huge sponge. You squeeze it, which is compression, and it gives out its water. You release the compression and it absorbs water again.

Just so the earth in the underground strata carrying water is squeezed by the shock waves passing through it from an earthquake center many miles away. With the squeeze the water level in a well rises. As the wave passes the level goes back to normal.

In the Long Beach area earth vibrations gave a graphic and visible evidence of the sponge simile. Water rose in many small vents through the earth's surface creating small cones and craters in the coastal plain area. Blue mud came up through cracks in the ground. One water well in the city of Long Beach poured over the top of the pipe.

Morris points out a maxim—the deeper the well the greater the surge. Relatively shallow wells surge two feet or less during a shock period. One well, 1400 feet deep, recorded an eight foot surge.

The only permanent effect that has been recorded in the increase or raising of water levels was found in San Gabriel, in Orange county wells and at San Bernardino. Following the Long Beach shake, wells in these sections gained from two to six feet in depth of the water surface.

Laguna Beach Artist Tried "Impossible" And Became Famous

Acclaim Doesn't Halt Artist's Efforts To Put "Perfect Wave" On Canvas

AN ocean wave slopped down into Artist Frank Cuprien's soul one day, splashed around and stayed there. It has caused him 40 years of trouble and brought him world-wide fame.

For though Cuprien says that thus far he hasn't approached perfection in his painting, the canvases he thinks imperfect nevertheless put him in the front rank of American artists!

The fact that he looks like Santa Claus and doesn't care two puffs of his church-warden's pipe



Frank Cuprien, whose inspiration to paint a perfect wave has led him to fame. Dean of one of the West's largest and most distinguished art colonies, at 65 he still hopes to paint that "impossible" thing.

whether he's laughed at, has little bearing on his artistic efforts. He feels, though, that he must apologize.

"We do the things we're made of," he says. "We can put on canvas only those things we have in our own souls—"

AND that's the cause of the untiring and enormous labors of 65-year-old Frank Cuprien, in his strange, unpainted studio high on a cliff overlooking the sea at Laguna Beach, Cal. A wave captured his artistic imagination long ago, and for all these years in countless paintings he has been trying to create the perfect image of that wave on canvas.

By the Monterey cypress trees which protect his lofty home from sea gales, Cuprien leans, elbow on a stone wall, like some overgrown elf. His silver whiskers and his silver hair blow all together in the wind, and somewhere in the middle is his pipe. His sharp, blue eyes flicker.

"I came here for a day, and I stayed 25 years. I built this place when there wasn't another house around. Now look—there's a whole city."

EVEN though tourists stare and call him "Santa," he strolls undismayed through the streets of the little city he has helped make famous.

He's dean of all its temperamental artist-residents. His marine paintings are known from one coast to the other; and if he wants to wear old leather puttees, a blue smock, black saten breeches and a lopsided beret while he saunters of an afternoon, why then he wears them!

"Life always is striving," he says. "We strive, yet cannot achieve perfection. I feel like apologizing for painting the ocean. Never could I paint so much as one wave perfectly; that is beyond attainment. Yet I strive for that creation, and some day—"

"Impossible," he chuckles.