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OREGON'S MINERAL INDUSTRY IN 1950

By

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The year has seen little real change in the State's mineral production during 1950. Nonmetallic production continues at a high rate. Metallic mining is at a very low ebb as it has been ever since the end of World War II. After the Defense Production Act of 1950 became law in September, the somnolent strategic minerals industry showed signs of resurgence because of expectations of increased market prices of war minerals, some of which are critically low in the national stockpile. There appears to be now a long-overdue appreciation in government circles that the domestic strategic minerals industry has national importance as compared to foreign sources of supply. We now hear that the domestic industry must be built up if we are to have insurance of security in the event of a third world war.

Oregon mineral production statistics for 1950 are not yet available; it seems unlikely, however, that there will be any material change from those of 1949. Preliminary figures for 1949 as reported to the Department by the U.S. Bureau of Mines are tabulated on page 2.

Nonmetallics

In approximate order of importance Oregon's commercial nonmetallic minerals are sand, gravel, and crushed rock; limestone and portland cement; clay; perlite, pumice, and expanded shale; diatomite; silica; coal; and gem stones.

Sand, gravel, and crushed rock

Construction activity of all kinds has been at a high rate and sand and gravel companies have operated at capacity throughout the year. A large amount of such material has gone into government construction at Detroit and McNary dams. Public and private building construction in the large population centers has consumed large quantities of sand and gravel. Highways and logging roads consume most of the rock.

Limestone

The largest demand for limestone in the State is for portland cement and because of the high construction activity cement plants have been busy throughout the year. More cement could have been sold by Oregon plants if it had been available. The Oregon Portland Cement Company has quarries at Lime in Baker County and at Dallas in Polk County. The company has kilns both at Lime and at Oswego south of Portland. The Pacific Portland Cement Company has a large quarry on Marble Mountain south of Wilderville in Josephine County and a kiln at Gold Hill in Jackson County. Limestone is transported by rail between Marble Mountain and

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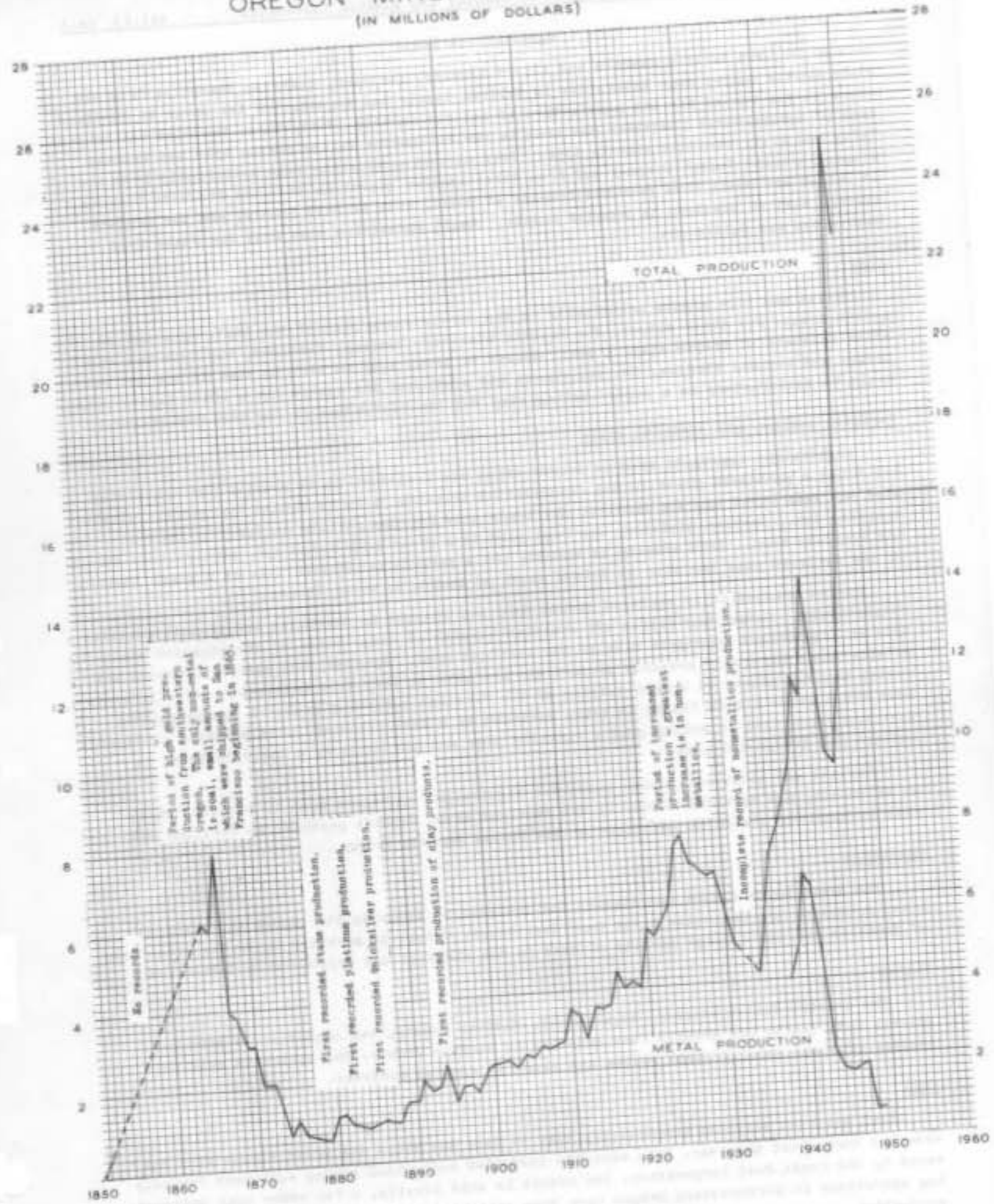
Mineral Production of Oregon in 1949

Product	Quantity	Value
Aluminum (short tons)	(1/ 2/)	(1/ 2/)
Antimony ore - concentrates (short tons)	54	$2,851
Asbestos (short tons)	(1/)	(1/)
Cement (barrels)	(1/)	(1/)
Chromite (short tons)	-----	-----
Clay:		
Products, heavy clay (other than pottery and refractories)	-----	3/ 1,065,000
Raw - sold or used (short tons)	4/ 164,399	4/ 131,177
Copper (pounds)	40,000	7,880
Diatomite (short tons)	(1/)	(1/)
Ferro-alloys (short tons)	(1/ 2/)	(1/ 2/)
Gem stones	(5/)	(5/)
Gold (troy ounces)	16,226	567,910
Lead (short tons)	12	3,792
Lime (short tons)	-----	-----
Mercury - flasks (76 pounds)	1,167	92,730
Mineral waters	(5/)	(5/)
Ores (crude), etc.:		
Copper (short tons)	46	(6)
Dry and siliceous - gold and silver (short tons)	6,169	(6)
Perlite (short tons)	(1/)	(1/)
Pumice (short tons)	104,475	273,427
Quartz (short tons)	(1/)	(1/)
Sand and gravel (short tons)	7,134,751	7,682,272
Silver (troy ounces)	12,195	11,037
Stone (short tons)	7/ 4,397,390	7/ 6,479,164
Tungsten concentrates (short tons)	3	(1/)
Zinc (short tons)	6	1,488
Miscellaneous 8/	-----	8/ 29,291,312
Total value, eliminating duplications	-----	$22,479,000

1/ Value included with "Miscellaneous."
2/ Value not included in total value for State.
3/ Figure obtained through cooperation with Bureau of the Census.
4/ Value of clay used in cement and heavy clay products is included here but is not included in total value for State.
5/ No canvass.
6/ Not valued as ore; value of recoverable metal content included with the metals.
7/ Exclusive of dimension granite, value of which is included with "Miscellaneous."
8/ Includes minerals indicated by footnotes 1 and 7 above. The bulk of the $29,291,312 represents the value of the manufactured mineral products, aluminum and ferro-alloys - items that are not considered in determining the value of mineral production of the State.

OREGON MINERAL PRODUCTION

(IN MILLIONS OF DOLLARS)



Nonmetallics (cont.)

Gold Hill. The Pacific Carbide and Alloys Company, Portland, quarried limestone from the Black Marble quarry near Enterprise in Wallowa County and transported the stone to Portland where it was burned for the manufacture of calcium carbide. Fifty-three thousand two hundred tons of agricultural limestone was used in the Willamette Valley during 1949 and between fifty and sixty thousand tons in 1950. This agricultural stone came principally from the Oregon Portland Cement Company and from three smaller quarries: the Lime Products Company at Dallas and Buell Lime Products Company at Buell, both in Polk County, and the Landers quarry, east of Roseburg in Douglas County. Small quantities came into the State from Washington and California.

Clay

Brick and tile plants principally in the northwestern part of the State have had an active demand for their output. The Pacific Stoneware Company, Portland, has been the only other consumer of Oregon clay. A small amount of local clay is used in some of the art potteries and ceramic studios. The Department has continued its search for a white kaolin which would be satisfactory as a paper-coating clay but the search has so far been unsuccessful.

Perlite, pumice, and expanded shale

Lightweight aggregate used in construction has continued to be popular and apparently has found a permanent place in the construction industry. A large demand for perlite plaster sand has been built up, and Dantore, the trade name for the perlite produced by Dant & Russell, Inc., Dantore Division, has been used in a great many buildings, particularly in the Portland area. This company is turning out a perlite acoustical tile at a plant located on the railroad near the mine at Frieda south of Maupin in Wasco County.

Pumice production is centered around Bend and Chemult in Deschutes and Klamath counties respectively. Output has fallen off somewhat because of competition of the expanded shale type of lightweight aggregate made in the Portland area. However, the pumice producers are putting out a carefully prepared product and are able to ship into Washington and California cities besides places in Oregon outside of the Portland marketing area. A pumice plaster sand which gives a hard finish is being marketed by a Bend producer. One producer at Redmond uses his production in making pumice concrete pipe and has built up a large business in culvert and irrigation pipe.

Haydite and Lite-rock, trade names for lightweight aggregate made by bloating shale or siltstone, are marketed widely in the Portland area. Haydite produced in Portland was used in concrete placed on the floor of the Tacoma Narrows Bridge.

Diatomite

The Great Lakes Carbon Corporation has operated at capacity its quarry and plant at Lower Bridge on the Deschutes River near Terrebonne. Output is marketed under the trade name of Dicalite and has a large variety of uses in the chemical and construction industries.

Silica

The Bristol Silica Company, Rogue River, Jackson County, has continued to mine and process both quartz and granite from quarries in Jackson County. The output is sold for poultry grit and metallurgical silica and also for special purposes.

Coal

Coal has been produced commercially only at Coos Bay where the South Slough mine has operated throughout the year. This mine has installed mechanical mining equipment formerly owned by the Coast Fuel Corporation; the output is sold locally. A few other coal prospecting operations in northwestern Oregon have been attempted but so far have resulted in no production.

Gem stones

This Oregon industry is a combination of commercial lapidaries and hobbyists. Oregon is famous for its agates and "thunder eggs," and collectors from all over the West come to the State in order to obtain the material. Part of it is sold to lapidaries and part goes into private collections. Some collectors buy and sell agates and other mineral specimens as a business aside from their regular employment. It is impossible to determine the dollar value of this business but it is relatively large. If it were possible to separate the commercial from the noncommercial production, it would probably be found that the value of the raw stones sold commercially would be many thousands of dollars; the value of the cut and polished stones would be of the order of several hundred thousand dollars.

Metallics

Gold, silver, copper, lead, and zinc

Gold lode mining has been almost at a standstill. There have been a few small underground operations but the State's lode gold production has been principally a by-product from sulphide ores shipped to copper smelters. The principal production of shipping ore has been from the Buffalo mine in Grant County and the Champion mine in eastern Lane County. Two cars of gold ore were shipped to the Tacoma Smelter from the Humdinger mine in Josephine County. Two gold dredges, both bucketline, have operated throughout the year in Eastern Oregon. The Baker Dredging Company sold out during the year to the Powder River Dredging Company which is digging in the lower part of Sumpter Valley. Porter & Company finished dredging in the Clear Creek section of Grant County near the end of the year and then moved over the divide on the north to Crane Creek. Seasonal hydraulic operations were continued in both the northeastern and southwestern parts of the State with the large majority in Josephine County where about 40 separate operations were active during the winter and spring seasons. About 90 percent of the State's gold production came from placers.

Mercury

The Bonanza quicksilver mine, one of the largest producers during World War II, closed down during 1949. There was no activity reported anywhere in the State in 1950. The market price for quicksilver, which is governed by the European price, has been far too low to offer any inducements to reopen mines in this country. Toward the end of the year the tense international situation caused a strengthening in the market price and during December quotations have shown a rapid increase. The price quoted for the week ending January 4, 1951, was $150-$153 per flask depending upon the quantity. In the absence of a European war, it is questionable whether or not a market price established by European producers would be stable enough to interest capital in reopening domestic mines without a long-term government contract.

Chromite

There has been no chrome production during the year. A small amount of diamond drilling was done at the Oregon Chrome Mine in Josephine County after passage of the Defense Production Act of 1950 when it seemed assured that the government would be obliged to provide a price incentive to obtain domestic production for the national stockpile. Some new ore was found by this diamond drilling but work was suspended until a suitable price schedule is established. Former chrome producers have held meetings in Grants Pass in order to present a unified program for a suitable price to the Defense Minerals Administration.

Antimony

Exploration of a low-grade antimony deposit in Crook County was conducted during both 1949 and 1950. Metallurgical testing aimed at producing metallic antimony was done at one property in southern Oregon.

Exploration Activities

Bauxite

A small amount of auger-hole drilling was done by Alcoa Mining Company on land owned by the company in the fall of 1950. All other areas owned or controlled by the company have been drilled and sampled so that an accurate estimate of quantity and quality has been made. During 1949 some good grade bauxite was found east of Mehama in eastern Marion County and a small amount of exploration work was done in the area during 1950. No estimate of the extent of the deposit may be made from the small amount of work done.

Asbestos

During the year the Asbestos Corporation of Canada explored by diamond drilling and trenching an asbestos deposit located about 5 miles north of Mt. Vernon in Grant County. The company also trenched a deposit on Butte Creek near the Middle Fork of the John Day River and examined several other deposits in eastern Oregon. It is reported that none of these deposits contained tonnage sufficient to warrant a concentrating plant.

Nickel

The M. A. Hanna Company has leased the Nickel Mountain nickel deposit near Riddle in southern Douglas County where a large amount of diamond drilling was done by Freeport Sulphur Company during World War II. The Hanna Company is investigating the metallurgy and economics of producing nickel from this low-grade deposit of oxidized ore. Metallurgists of the U.S. Bureau of Mines have been carrying on tests of this ore aimed at direct smelting to a stainless steel. The Mining Division of the Bureau has made field investigations of nickel occurrences in southwestern Oregon. The studies included soil sampling to determine any unusual concentrations of nickel and copper.

Tungsten

Considerable trenching was done on an occurrence of scheelite discovered near Ashland by Mr. L. A. Bratcher. Some of the ore has been milled by Van Curler Brothers, Ashland. The Department has mapped this scheelite locality and has also studied scheelite occurrences in the Gold Hill area of Jackson County. A report of these studies which have been planned to assist prospecting for this important war mineral, is in preparation and will be issued early in 1951.

Oil and gas testing

Test drilling for oil and gas was suspended in the Burns and Vale areas, and a test was started in both Jefferson and Crook counties. A test near the Hay Creek Ranch in Crook County was suspended in November and the rig was moved to a new location about 5 miles north of Mitchell in Wheeler County. The other test located in southern Crook County was reported inactive at the end of the year. Another test in southern Lake County, started early in the year, was also reportedly inactive as the year closed.

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MANGANESE RECOVERED FROM OPEN HEARTH SLAGS

Critically short manganese, used by the steel industry in large amounts, is now recovered from open hearth furnace slags which were once discarded. Flush slag, tapped from the furnace early during a heat of steel, contains about 9 percent manganese and 26 percent iron. Slag may be used to replace not more than 10 percent of the flux ordinarily used, and when tapped the second time contains only about one half of one percent iron and less than 2 percent manganese. In addition to saving both iron and manganese, the new process also reduces the amount of limestone used as a flux.

(From Steel Facts, December 1950.)

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A "PLANNED" METAL SHORTAGE

The nation is now beginning to "reap the whirlwind" as a result of its failure to heed the warning of the metal mining industry.

Mining men have for the past several years pointed continuously to the unhealthy state of the industry and recommended that the government take the necessary legislative action, particularly in the area of taxes and tariffs, which would insure development of the strong and expanding industry essential to our national economy.

The advice was ignored and now the results are all too apparent. Dr. James Boyd, defense minerals administrator, revealed this week that there is not sufficient copper available to the domestic market to meet the country's defense and civilian requirements. Zinc also is in "terrible short supply" he says. The situation with regard to several other metals, including cobalt, tungsten, manganese, mercury, aluminum, cadmium, and nickel, to name a few, is equally or even more critical.

Talk of opening new deposits at this date is again in the "too little too late" category. New mines cannot be opened overnight. Normally it takes five to ten years to develop a copper deposit. Smaller zinc and lead properties can be put into operation a little faster, but it is still not a matter of a few weeks or months. Even opening and re-equipping an old, marginal producer is a time-consuming proposition.

These "facts of life" were pointed out time and again by mining men. They asked for a modification of tax laws, for better tariff protection from unfair foreign competition, and for more realistic administration of the securities and exchange laws so that the industry could prosper and attract the kind of private capital essential to the continuing discovery and development of new mineral resources.

Now the critical metal shortage is upon us and it is bound to work many hardships. The government is scurrying around for a solution to the difficulty, and as usual, comes up with the only answer it seems to have for any problem - spending more government money to help new mines get into production.

No recognition of the fundamental problems is yet apparent among leading administration officials. The recent excess profits tax law makes that part of the industry's handicaps worse instead of better. Recommendations by mining men for changes in the SEC law have been taken under advisement by top SEC officials and little can be expected from that quarter for some time.

It seems apparent that only an aroused electorate, weary of unnecessarily recurring controls and shortages, can dictate the kind of metal industry policy which will insure a metal supply adequate for the maintenance of our national economy.

(From the Wallace Miner, Wallace, Idaho, January 11, 1951.)

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CLEAN BUT COSTLY

Last week Columbia Steel Company displayed the results of a heavy investment in an electrostatic precipitator on one of its open hearths at Torrance, California. What is believed to be the first installation of its kind in the country proved a complete success controlling approximately 96 percent of the emissions of the furnace. Three other similar units are to be installed on the remaining furnaces with a total cost of approximately $600,000. It is believed that when the installation is completed the operation will comply with the extremely stringent regulations of the Los Angeles County Air Polution Control District.

(From Iron Age, West Coast Edition, San Francisco, December 28, 1950.)

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CHROME MINERS MEET AT GRANTS PASS

On January 15 chrome miners in southern Oregon held a meeting in the Veterans of Foreign Wars Building, Grants Pass, under the auspices of the Oregon Mining Association. The object of the meeting was to decide upon a price which would allow the chrome miners of southern Oregon and northern California to mine and ship chromite to a government ore purchasing depot at a price that would allow a reasonable profit to the miners. The discussion centered around a proper price and a minimum guaranteed time during which the price would be in effect.

Mr. F. I. Bristol, President of the Oregon Mining Association, led a forum discussion which considered chrome ore distribution, the possibilities of finding new chrome ore bodies in southern Oregon and northern California, and the need, from a national standpoint, of developing and producing chrome to the greatest extent possible. It was unanimously voted by those present to send a representative to Washington, D.C., as soon as practicable to discuss a satisfactory price for chrome with Mr. S. H. Williston, Head of the Supply Division of the Defense Minerals Administration. The meeting voted that Mr. Bristol should be the representative to represent both the chrome miners and the Oregon Mining Association. It is expected that Mr. Bristol will leave for Washington in the near future.

Mr. Niel R. Allen, Chairman of the Governing Board of the State Department of Geology and Mineral Industries, gave a talk on the functions and accomplishments of the Department with particular attention to statutory as well as budgetary limitations on Departmental activities. The other members of the Board, H. E. Hendryx and Mason L. Bingham, were introduced and made brief statements. Regular meetings of the Governing Board to act upon department business were held both before and after the chrome miners meeting.

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WILLISTON TO TALK TO PORTLAND CHAMBER OF COMMERCE

"Western Mining's Part in the Defense Program" will be the title of a talk to be given by Mr. S. H. Williston to a joint Portland Chamber of Commerce-Raw Materials Survey luncheon at the Multnomah Hotel February 12.

Mr. Williston, a former resident of Portland and former member of the Governing Board of the State Department of Geology and Mineral Industries, is now in charge of the Supply Division of the Defense Minerals Administration, Washington, D.C. This agency was set up to build new mineral production under the Defense Production Act of 1950.

While living in Oregon Mr. Williston managed the Horse Heaven mine, large producer of quicksilver, which was later absorbed by the Cordero Mining Company with quicksilver mine located near McDermott, Nevada, just south of the Oregon boundary. Besides being vice president and general manager of the Cordero Mining Company, Mr. Williston is vice president of the Sperry-Sun Well Surveying Company, vice president of the Oregon Mining Association, member of the American Institute of Mining and Metallurgical Engineers, member of the Mining and Metallurgical Society of America, and member of the Mining Committee of the San Francisco Chamber of Commerce.

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CONDON LECTURE

The Condon Lectures, financed by the Oregon System of Higher Education and sponsored by the Oregon Academy of Science, will have as lecturer this year Dr. Perry Byerly of the Department of Geology, University of California. Dr. Byerly's subject will be on Pacific Coast earthquakes. Two lectures will be given in Portland, one on Tuesday, February 6, and one on Thursday, February 8, both in the auditorium of the Lincoln High School at 8:15 p.m. On Tuesday the lecture will be "The Causes of Geographical Distribution of Earthquakes" and on Thursday the title will be "The Effects and Their Mitigation." The public is invited to attend these lectures. There is no admission charge.

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