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Bibliography of Seismology

July to December, 1942

ADLER, J. L., "Method and Apparatus for Seismic Surveying" (Patent). U.S. No. 2,279,191, issued April 7, 1942. See No. 5406 of this list. ALCOCK, E. D., GILLIN, J. A., and SHOCK, Lorenz, "An Application of Seismic Surveying to the Location of Bauxite in Arkansas". See No. 5372 of this list. - Alcock, E. D., Gillin, J. A., and Shock, Lorenz, "An Application of Seismic Surveying to the location of Bauxite in Arkansas" (Abstract). See No. 5421 of this list. - ARNETT, R. D., and WATERS, Kenneth H., "Aspects of Seismic Curved Path Computations" (Abstract). See No. 5421 of this list. - Arringdale, R. L., Devlin, James J., S.J., and Langguth, Lawrence C., S.J., "Macroseismic Study of the New Hampshire Earthquakes of December, 1940". See No. 5366 of this list. 5357. AYVAZOGLOU, W. (1) "Geophysical Abstracts 105, April-June, 1941", U.S. Geological Survey Bulletins, No. 932B, 41-81, Washington, 1942. (2) "Geophysical Abstracts 106, July-September, 1941", Ibid., No. 932-C, 85-119. BANCROFT, Dennison, and BIRCH, Francis, "The Elasticity of Glass at High Temperatures, and the Vitreous Basaltic Substratum". See No. 5361 of this list. 5358. Bediz, Pertev I., "Salt Core Structures and Their Importance in Petroleum Geology", Mines Magazine, Vol. 32, No. 5, 215-217, 255, 265, 7 fig., Golden, May, 1942. 5359. BILLINGS, Marland P., "Geology of the Central Area of the Ossipee Mountains, New Hampshire, Earthquakes", Bulletin Seismological Society of America, Vol. 32, No. 2, 83-92, 5 fig., bib., Berkeley, April, 1942. 5360. Bilmes, L., "A Rheological Chart", Nature, Vol. 150, No. 3806, 432-433, 1 fig., London, Oct. 10, 1942. 5361. Birch, Francis, and Bancroft, Dennison, "The Elasticity of Glass at High Temperatures, and the Vitreous Basaltic Substratum", American Journal of Science, Vol. 240, No. 7, 457-490, 5 fig., 9 tab., bib., New Haven, July, 1942. 5362. Bradford, Donald C., "Geophysical Education", American Institute of Mining and Metallurgical Engineers Technical Publications, No. 1488, 9 pp., New York, July, 1942. Buchanan, J. A., "Accelerometer" (Patent). U.S. No. 2,283,180, issued April 19, 1942. See No. 5406 of this list.

5363. Bullen, K. E., "Rotation and Strain", Mathematical Gazette, Vol. 24, No. 261, 4 pp.,

Oct., 1940.

- 5364. BULLEN, K. E., "The Elasticity of the Earth's Central Core". Reprinted from Transactions of the Royal Society of New Zealand, Vol. 71, Part 2, 164-166, 2 tab., bib., Sept., 1941. CLOUD, R. T., "Measurements of Sound Velocities in Strata Traversed by Boreholes" (Patent). U.S. No. 2,238,991, issued April 22, 1941. See No. 5405 of this list. - CLOUD, R. T., "Method and Apparatus for Determining Distances of Elastic Discontinuities" (Patent). U.S. No. 2,275,735, issued March 10, 1942. See No. 5406 of this list. CLOUD, R. T., "Seismic Wave Velocity Well Logging" (Patent). U.S. No. 2,275,736, issued March 10, 1942. See No. 5406 of this list. - CLOUD, R. T., "Seismic Wave Generation Apparatus" (Patent). U.S. No. 2,281,751, issued May 5, 1942. See No. 5406 of this list. — Crosby, M. G., "Limiting Amplifier" (Patent). U.S. No. 2,276,565, issued March 17, 1942. See No. 5406 of this list. 5365. CUYLER, R. H., "Many Benefits Expected from Texas Well-Logging Project", Oil Weekly, Vol. 101, No. 6, 26-28, Houston, 1941. A brief abstract, by W. Ayvazoglou, appears as No. 6063, p. 64, of Geophysical Abstracts 105, reported as No. 5357 of this list. - Deacon, L. E., "An Analysis of Abnormal Reflexions" (Abstract). See No. 5421 of this list. 5366. DEVLIN, James J., S.J., LANGGUTH, Lawrence C., S.J., and Arringdale, R. L., "Macroseismic Study of the New Hampshire Earthquakes of December, 1940", Bulletin, Seismological Society of America, Vol. 32, No. 2, 67-73, 2 fig., Berkeley, April, 1942. - DIX, C. Hewitt, "Dip Computations Below Unconformities" (Abstract). See No. 5421 of this list. 5367. Dobrin, M. B., "An Analytical Method of Making Weathering Corrections", Geophysics, Vol. 7, No. 4, 393-399, 2 fig., 2 tab., Menasha, Oct., 1942. - Dobrin, M. B., "An Analytical Method of Making Weathering Corrections" (Abstract). See No. 5421 of this list. Duvall, Wilbur, and Obert, Leonard, "Use of Subaudible Noises for the Prediction of Rock Bursts, Part II". See No. 5400 of this list.
- 5368. Eckhardt, E. A., "Geophysical Prospecting Follows Varied Pattern", Oil Weekly, Vol. 101, No. 4, 45-58, Houston, 1941. An abstract, by W. Ayvazoglou, appears as No. 6196, p. 105, of Geophysical Abstracts 106, reported as No. 5357 of this list.
- Ellis, Lacoste G., "Apparatus for Analysis of Seismographic Records" (Patent). U.S. No. 2,243,730, issued May 27, 1941. See No. 5405 of this list.

- 5369. FAUST, L. Y., "Geophysics in the Mid-Continent", Geophysics, Vol. 7, No. 3, 272-274, Houston, July, 1942.
- 5370. Fehr, Dr. R. O., "Quartz-Crystal Accelerometer", General Electric Review, Vol. 45, No. 5, 269-272, 2 fig., Schenectady, May, 1942.
- --- FLUDE, J. W., "Method and Apparatus for Subsurface Mining" (Patent). U.S. No. 2,283,200, issued May 19, 1942. See No. 5406 of this list.
- 5371. Freeman, L. I., "Geophysics in Canada" (Abstract), Geophysics, Vol. 7, No. 3, 274-275, Houston, July, 1942.
- Gardner, Louis W., "Seismograph Prospecting" (Patent). U.S. No. 2,231,575, issued February 11, 1941. See No. 5405 of this list.
- 5372. GILLIN, J. A., SHOCK, Lorenz, and Alcock, E. D., "An Application of Seismic Surveying to the Location of Bauxite in Arkansas", *Geophysics*, Vol. 7, No. 4, 400-405, 3 fig., 1 tab., Menasha, Oct., 1942.
- Gillin, J. A., Shock, Lorenz, and Alcock, E. D., "An Application of Seismic Surveying to the Location of Bauxite in Arkansas" (Abstract). See No. 5421 of this list.
- 5373. Golson, Georges A., "Piezoelectrical Quartz" (A Strategic Mineral), Mines Magazine, Vol. 32, No. 8, 379-381, 2 fig., Denver, 1942.
- GRÜTZMACHER, D. Martin, "Verfahren zur Bestimmung der Ausbreitungsgeschwindigkeit und Dampfung von Wellen im Erdboden und anderen festen Körpern" (Patent). German No. 701,341, issued January 14, 1941. See No. 5405 of this list.
- 5374. GUTENBERG, B., "Is the Land around Hudson Bay at Present Rising?", American Journal of Science, Vol. 240, 147-149, New Haven, Feb., 1942.

 B.G.
- 5375. Gutenberg, B., and Richter, C. F., "Earthquake Magnitude, Intensity, Energy and Acceleration", *Bulletin*, *Seismological Society of America*, Vol. 32. No. 3, 163–191, 4 fig., 12 tab., bib., Berkeley, July, 1942.
- 5376. HAYES, R. C., "The Seismicity of New Zealand", Dominion Observatory (N.Z.) Bulletin No. S-64, 2 pp., 1 fig., 1 tab., bib., Wellington, 1942.
- 5377. HAYES, R. C., "New Zealand Mean Time", Dominion Observatory (N.Z.) Bulletin No. T.-17, 2 pp., Wellington, 1942.
- HAYES, R. C., and HENDERSON, J., "Earthquakes in New Zealand". See No. 5380 of this list.
- 5378. Heck, N. H. Review of "Seismicity of the Earth", by B. Gutenberg and C. F. Richter, reported as No. 5175 of these lists, *Bulletin*, *Seismological Society of America*, Vol. 32, No. 3, 231-232, Berkeley, July, 1942.
- 5379. Hee, A., "Travaux relatifs à la construction asismique", Revue pour l'Étude des Calamités, Tome 5, Nos. 16-17, 95-100, Geneva, Jan.-June, 1942.

 A valuable bibliography of 86 entries on the subject indicated.

- 5380. HENDERSON, J., and HAYES, R. C., "Earthquakes in New Zealand", Dominion Observatory (N.Z.) Bulletin No. S. 63, 3 pp., Wellington, 1942.
- 5381. HILLS, T. M., and WARTHIN, A. S., Jr., "Experiments in Geyser Action", American Journal of Science, Vol. 240, No. 7, 512-517, 2 fig., New Haven, July, 1942.
- 5382. Hodgson, Ernest A., "Interior of the Earth Viewed in Its Relation to Earthquake Causes: Viewpoint of Seismology", Bulletin, Geological Society of America, Vol. 53, No. 7, 1045-1053, bib., Washington, July 1, 1942.

Reported also as No. 5182, as published in the Journal of the Royal Astronomical Society of Canada.

- 5383. Hoover, Herbert, Jr., "Contribution of Geophysics to the National Effort", Geophysics, Vol. 7, No. 3, 276-280, Houston, July, 1942.
- Hoover, H., Jr., "Method and Apparatus for Signalling" (Patent). U.S. No. 2,272,201, issued February 10, 1942. See No. 5406 of this list.
- Hoover, H. Jr., and Schaeffer, H. C., "System for Making Weathering Corrections" (Patent). U.S. No. 2,276,306, issued March 17, 1942. See No. 5406 of this list.
- --- Howard, G. M., "Method of and Means for Determining the Velocity of Propagation of Waves Through Subsurface Formations" (Patent). U.S. No. 2,276,974, issued March 17, 1942. See No. 5406 of this list.
- 5384. Inglada, Vicente, "Nomogramas para la determinación de los ángulos de incidencia, distancias epicentrales y tiempos de recorrido de los rayos sismicos", Instituto Geográfico y Catastral, Sección 1a, Servicio de Sismología, Trabajos de Investigación, Numero 1, 42 pp., 5 tab., 4 pl., Madrid, 1941.
 V.I.
- 5385. Inglis, D. R., "Motion of the Earth's Fluid Core: A Geophysical Problem", Physical Review, Vol. 59, No. 2, 178-188, Lancaster, 1941.

The author's abstract appears as No. 6065, p. 64, of Geophysical Abstracts 105, reported as No. 5357 of this list.

- 5386. JEFFREYS, Harold,
 - (1) "The Times of sP and sPKP", Monthly Notices, Royal Astronomical Society, Geophysical Supplement, Vol. 5, No. 2, 31-32, London, 1942.
 - (2) "The Deep Earthquake of 1934 June 29", Ibid., 33-36.
- 5387. Kelly, Sherwin F., "Geophysical Exploration", Mining and Metallurgy, No. 397, Vol. 21, 41-44, Jan., 1940.

A brief review, signed D.W., appears on p. 404 of *Mines Magazine*, Vol. 32, No. 8, Denver, 1942.

5388. Kelly, Sherwin F., et al., "Integration of Geology, Physics and Chemistry for the Solution of Earth Problems" (Report of the Geophysics Education Committee of Mineral Industry, Education Division, A.I.M.E.), American Institute of Mining and Metallurgical Engineers, Technical Publications, No. 1483, 20 pp., New York, July, 1942.

The written discussion which followed the presentation of the report is given in full.

- --- KLIPSCH, Paul W., "Recording Seismic Waves" (Patent). U.S. No. 2,232,612, issued February 18, 1941. See No. 5405 of this list.
- Klipsch, Paul W., "Seismic Prospecting" (Patent). U.S. No. 2,232,613, issued February 18, 1941. See No. 5405 of this list.
- 5389. Kornfeld, J. A., "Core Drill and Seismograph", Oil Weekly, Vol. 102, No. 8, 32-38, Houston, 1941.

A brief abstract, by W. Ayvazoglou, appears as No. 6162, p. 95, of Geophysical Abstracts 106, reported as No. 5357 of this list.

- 5390. Kratz, H. R., and Mack, J. E., "A Long Optical Path in a Restricted Space", Journal, Optical Society of America, Vo. 32, No. 8, 457-464, 3 fig., bib., Lancaster, August, 1942.
- --- LANGGUTH, Lawrence C., S.J., ARRINGDALE, R. L., and DEVLIN, James J., S.J., "Macroseismic Study of the New Hampshire Earthquakes of December, 1940". See No. 5366 of this list.
- 5391. LAUDERBACK, George D., "History of the University of California Seismographic Stations and Related Activities", Bulletin, Seismological Society of America, Vol. 32, No. 3, 205-229, bib., Berkeley, July, 1942.
- 5392. LEET, L. Don., "Mechanics of Earthquakes Where There Is No Surface Faulting", Bulletin Seismological Society of America, Vol. 32, No. 2, 93-96, bib., Berkeley, April, 1942.
- 5393. LEET, L. Don, and LINEHAN, Daniel, S.J., "Instrumental Study of the New Hampshire Earthquakes of December, 1940", Bulletin, Seismological Society of America, Vol. 32, No. 2, 75-82, 2 fig., bib., Berkeley, April, 1942.
- —— Linehan, Daniel, S.J., and Leet, L. Don, "Instrumental Study of the New Hampshire Earthquakes of December, 1940". See No. 5393 of this list.
- 5394. LÜCKENRATH, H., "Fortschritte der Reflexionsseismik", Oel und Kohle, Vol. 37, No. 5, 73-77, Berlin, 1941.

An abstract, by W. Ayvazoglou, appears as No. 6164, p. 96, of Geophysical Abstracts 106, reported as No. 5357 of this list.

5395. Ludy, Albert K., "Earthquake Notes", Vol. 13, No. 4, 8 pp., Washington, April, 1942.

The above periodical is the official organ of the Eastern Section of the Seismological Society of America. The editor is Albert K. Ludy of the U.S. Coast and Geodetic Survey, Washington. Items of interest to the members of the Section should be reported to Mr. Ludy for publication in Earthquake Notes.

The successive titles in the present issue are as follows: Captain Heck honored; Annual Meeting 1942; The Lewiston-Auburn, Maine Earthquake of March 8, 1942 (by William H. Weeks, S.J.); Surveys at Long Beach; Golden Gate Bridge; Correction; International Seismological Summary; Earthquakes registered in New South Wales; Recent earthquakes; More notes on the Earthquake of November 25, 1941; News items from England; Amateur seismology; Earthquakes in Central United States; Earthquakes registered at Kew; Epicentres; Officers of Eastern Section, S.S.A.; Report of Nominating Committee.

- MACK, J. E., and KRATZ, H. R., "A Long Optical Path in a Restricted Space". See No. 5390 of this list.
- MAYNE, W. H., "Oscillograph" (Patent). U.S. No. 2,279,124, issued April 7, 1942. See No. 5406 of this list.
- McCarty, M. D., "Timing Device" (Patent). U.S. No. 2,277,521, issued March 24, 1942. See No. 5406 of this list.
- 5396. McComb, H. E., "Geophysical Measurements in the Laboratory and in the Field", Journal, Washington Academy of Sciences, Vol. 32, 65-79, Washington, March 15, 1942.

A brief abstract appears as No. 1686, p. 175, of *Physics Abstracts*, Section A., London, June, 1942.

- MILLER, W. W., "Galvanometer" (Patent). U.S. No. 2,282,590, issued May 12, 1942. See No. 5406 of this list.
- MINTON, John P., "Method of Calibrating Field Timing Systems" (Patent). U.S. No. 2,230,002, issued January 28, 1941. See No. 5405 of this list.
- 5397. Mott-Smith, Morton, "Curved Path Methods Applied to Verticals and to Wide Shot Spreads", Geophysics, Vol. 7, No. 2, 133-141, 3 fig., bib., Houston, April, 1942.
- 5398. NATURE. Brief items of interest to seismologists have appeared in recent issues of Vol. 149 of the above periodical (London, 1942) as follows:
 - (1) "Earthquakes in the Pacific, No. 3784, p. 523, May 9.
 - (2) "Floods of September 1938 in New England", No. 3785, p. 556, May 16.
 - (3) "Earthquake in Ecuador", No. 3786, p. 578, May 23.
 - (4) "Earthquakes Registered at Kew", Ibid.
 - (5) "New Seismograph Station at Logan, Utah", Ibid., 585-586.
 - (6) "Recent Earthquakes", No. 3787, p. 607, May 30.
 - (7) "New Zealand Earthquakes", No. 3788, p. 636, June 6.
 - (8) "Earthquakes Registered in Switzerland", Ibid.
 - (9) "Luminous Phenomenon Accompanying the Cyprus Earthquake, January 20, 1941", *Ibid.*, p. 640.
 - (10) "Bibliography of Seismology", No. 3789, p. 665, June 13.
 - (11) "Geophysical Methods in Geology", No. 3790, p. 690, June 20.
 - (12) "Earthquake Recorded at Kew", Ibid., p. 694.
 - (13) "Classification of Rheological Properties", Ibid., p. 702, 1 fig.
- 5399. NATURE. Brief items of interest to seismologists have appeared in recent issues of Vol. 150 of the above periodical (London, 1942) as follows:
 - (1) "New Zealand Earthquakes", No. 3792, 18-19, July 4.
 - (2) "Recent Earthquakes", No. 3793, p. 54, July 11.
 - (3) "Obituary of Prof. D. la Cour", No. 3795, 115-116, July 25.
 - (4) "Earthquake in Spain" and "Earthquakes in South America", Ibid., p. 118
 - (5) "Earthquakes in New Zealand", Ibid., p. 119.
 - (6) "Earthquake Registered at Kew", No. 3796, p. 150, August 1.

- (7) "Earthquakes Registered in Switzerland", No. 3797, 175-176, August 8.
- (8) "Recent Earthquakes", No. 3798, p. 207, Aug. 15.
- (9) "The Lewiston-Auburn, Maine Earthquake of March 8, 1942", No. 3799, p. 238, Aug. 22.
- (10) "Earthquakes in the United States During 1939", Ibid., 239-240.
- (11) "Earthquake Activity in New Zealand", Ibid., 243-244.
- (12) "Recent Earthquakes", No. 3801, p. 288, Sept. 5.
- (13) "Cause of the New Hampshire Earthquakes of 1940", Ibid., p. 300.
- (14) "Recent Earthquakes", No. 3803, 345-346, Sept. 19.
- (15) "Recent Earthquake Records", No. 3805, p. 401, Oct. 3.
- (16) "Bibliography of Seismology", and "Earthquakes Registered in New Zealand", No. 3807, p. 459, Oct. 17.
- (17) "Recent Earthquakes", No. 3808, p. 488, Oct. 24.
- (18) "Earthquakes in Guatemala", No. 3809, 518-519, Oct. 31.
- --- NETTLETON, L. L., "Recent Experimental and Geophysical Evidence on the Mechanics of Salt Dome Formations" (Abstract). See No. 5421 of this list.
- 5400. OBERT, Leonard, and DUVALL, Wilbur, "Use of Subaudible Noises for the Prediction of Rock Bursts, Part II", U.S. Department of the Interior, Bureau of Mines, Reports of Investigations, R.I. 3654, 22 pp., 9 fig., Washington, July, 1942.

 L.O.

A review of this paper appears in *The Mining Magazine*, Vol. 67, No. 3, 114-115, London, Sept., 1942.

5401. OIL AND GAS JOURNAL, "1940 Lucas Medal Awarded to Schlumberger Brothers", Oil and Gas Journal, Vol. 39, No. 29, p. 30, Nov. 28, 1940.

A brief review, signed D.W., appears on p. 404 of Mines Magazine, Vol. 32, No. 8, Denver, 1942.

5402. OIL WEEKLY, "Advancements Continue to Be Made in Geophysical Field", The Oil Weekly, Vol. 99, No. 3, 50-51, Houston, Sept. 23, 1940.

A brief review, signed J.E.H., appears on p. 404 of *Mines Magazine*, Vol. 32, No. 8, Denver, 1942.

5403. OIL WEEKLY, "Mississippi's Potentialities Still Undetermined", The Oil Weekly, Vol. 99, No. 8, 10-14, Houston, Oct. 28, 1940.

A brief review, signed J.E.H., appears on p. 404 of *Mines Magazine*, Vol. 32, No. 8, Denver, 1942.

- —— Pamir, H. N., and Parejas, E., "Le tremblement de terre du 19 avril, 1938, en Anatolie centrale". See No. 5404 of this list.
- 5404. Parejas, E., and Pamir, H. N., "Le tremblement de terre du 19 avril, 1938, en Anatolie centrale", Review of Faculty of Science, University of Istanbul, Vol. 4, No. 3/4, 183-193, 1939.

The author's abstract, translated by W. Ayvazoglou, appears as No. 6034, 53-54, of *Geophysical Abstracts* 105, reported as No. 5357 of this list.

- 5405. Patents. Patents of interest to seismologists are listed in *Geophysical Abstracts 105 and 106*, reported as No. 5357 of this list. Those of particular interest are entered in this list under the names of the respective inventors as follows: Gardner, Klipsch, Wyckoff, Schaeffer, Minton, Sparks, Cloud, Silverman, Zuschlag, Ellis, Grützmacher.
- 5406. Patents. In *Geophysics*, Vol. 7, No. 3 (Houston, July, 1942), appears a list of patents (pp. 324-327). Those dealing with seismic prospecting are listed in this issue of the *Bibliography* under the names of patentees, as follows: Wyckoff, Howard, Adler, Cloud, Ritzmann, Flude, Silverman, Crosby, McCarty, Mayne, Miller, Buchanan, Hoover, Schaeffer, Peterson.
- 5407. Peacock, H. B., "How Can Geophysicists Best Serve?", Geophysics, Vol. 7, No. 3, 259-267, 2 tab., Houston, July, 1942.
- Peterson, R. A., "Method of Making Weathering Corrections" (Patent). U.S. No. 2,276,335, issued March 17, 1942. See No. 5406 of this list.
- 5408. Phelan, S. R., "Geophysical Prospecting", International Oil, Vol. 1, No. 3, p. 108, Houston, Oct., 1940.
 A brief review, signed D.W., appears on p. 404 of Mines Magazine, Vol. 32, No. 8, Denver, 1942.
- 5409. Piety, R. G., "Interpretation of the Transient Behavior of the Reflection Seismograph", Geophysics, Vol. 7, No. 2, 123-132, 2 fig., Houston, April, 1942.
- 5410. Ransone, W. R., "Effectiveness of Exploration Methods", World Petroleum, Vol. 12, No. 6, 68-69, New York, 1941.
 A brief abstract, by W. Ayvazoglou, appears as No. 6168, p. 97, of Geophysical Abstracts 106, reported as No. 5357 of this list.
- —— RICHTER, C. F., and GUTENBERG, B., "Earthquake Magnitude, Intensity, Energy, and Acceleration". See No. 5375 of this list.
- --- RITZMANN, O. F., "Apparatus for Sending and Recording Time Impulses" (Patent). U.S. No. 2,275,316, issued March 4, 1942. See No. 5406 of this list.
- RITZMANN, O. F., "Apparatus for Seismograph Prospecting" (Patent). U.S. No. 2,281,949, issued May 5, 1942. See No. 5406 of this list.
- 5411. Rothé, E., "Union Géodésique et Géophysique Internationale". Revue pour l'Étude des Calamités, Tome 5, Nos. 16-17, 80-85, Geneva, Jan.-June, 1942.

 A brief report of the last meeting of the International Union of Geodesy and Geo-

physics, held in Washington in Sept., 1939.

- 5412. Rothé, J. P., "Chronique Séismologique", Revue pour l'Étude des Calamités, Tome 5, Nos. 16-17, 53-67, Geneva, Jan.-June, 1942.
- 5413. Salvatori, Henry, "Geophysics on the Pacific Coast: Symposium—Application of Geology and Geophysics to War and Post-War Problems of the Petroleum Industry", *Geophysics*, Vol. 7, No. 3, 268-270, Houston, July, 1942.

See also papers by Wilson, Faust, and Freeman, presented at the same symposium and listed here under the respective names of the authors.

- -- Schaeffer, Hugh C., "Method of Making Weathering Corrections" (Patent). U.S. No. 2,229,191, issued January 21, 1941. See No. 5405 of this list.
- —— Schaeffer, H. C., and Hoover, H., Jr., "System for Making Weathering Corrections" (Patent). U.S. No. 2,276,306, issued March 17, 1942. See No. 5406 of this list.
- —— Schwartz, C. A., "Seismograph Evidence Regarding the Depth of the Salt in the Salt Dome Province of Southern Mississippi" (Abstract). See No. 5421 of this list.
- 5414. Science. Brief items of interest to seismologists have appeared in recent issues of Vol. 95 of the above periodical (New York, 1942) as follows:
 - (1) "New Earthquake Shocks Felt in Guayaquil, Ecuador, on Friday, May 15", No. 2473, p. 14 Suppl.
- 5415. Science. Brief items of interest to seismologists have appeared in recent issues of Vol. 96 of the above periodical (New York, 1942) as follows:
 - (1) "An Ultra-fast Oscillograph", No. 2479, p. 10 Suppl., July 3.
- 5416. Science News-Letter. Brief items of interest to seismologists have appeared in recent issues of Vol. 41 of the above periodical (Washington, 1942) as follows:
 - (1) "Caltech Seismographs Record Naval Gunfire", No. 20, p. 319, May 16.
 - (2) "Earthquake Centered in Mountains of Ecuador", No. 21, p. 329, May 23.
 - (3) "New Ecuadorean Earthquake Centered on Ocean Bottom", No. 22, p. 345, May 30.
- 5417. Science News-Letter. Brief items of interest to seismologists have appeared in recent issues of Vol. 42 of the above periodical (Washington, 1942) as follows:
 - (1) "Electrons Time Lightning and Paint Its Portrait", No. 1, p. 3, July 4. (Describes a new oscillograph).
 - (2) "Oil in the Earth", No. 2, p. 32, July 11.
 - (3) "July began with Family of Nine Quakes", No. 3, p. 41, July 18.
 - (4) "Report Quake Epicenter Near Coast of Guatemala", No. 8, p. 119, August 22.
 - (5) "Quake Hits Near Aleutians; Probably No Damage Done", No. 10, p. 153, September 5.
- 5418. Sharpe, Joseph A., "The Production of Elastic Waves by Explosion Pressures. I. Theory and Empirical Field Observations", *Geophysics*, Vol. 7, No. 2, 144-154, 3 fig., bib., Houston, April, 1942.
- 5419. Sharpe, Joseph A., "The Production of Elastic Waves by Explosion Pressures. II. Results of Observations Near an Exploding Charge", *Geophysics*, Vol. 7, No. 3, 311-321, 6 fig., Houston, July, 1942.
- --- Sharpe, Joseph A., "The Effect of Charge Size on Reflection Records" (Abstract). See No. 5421 of this list.
- --- Shock, Lorenz, Alcock, E. D., and Gillin, J. A., "An Application of Seismic Surveying to the Location of Bauxite in Arkansas". See No. 5372 of this list.
- --- Shock, Lorenz, Alcock, E. D., and Gillin, J. A., "An Application of Seismic Surveying to the Location of Bauxite in Arkansas" (Abstract). See No. 5421 of this list.

- SILVERMAN, Daniel, "Apparatus for Underwater Seismic Surveying" (Patent). U.S. No. 2,241,428, issued May 13, 1941. See No. 5405 of this list.
- —— SILVERMAN, Daniel, "Recording System" (Patent). U.S. No. 2,276,423, issued March 17, 1942. See No. 5406 of this list.
- 5420. SI-TANG, Huang, "Bestimmung der Geschwindigkeit, Dämpfung und Absorption von Kompressions und Scherwellen in Kautschuk", Zeitschrift für Geophysik, Vol. 16, No. 5/6, 213–233, Brunswick, 1940.

The author's abstract, translated by W. Ayvazoglou, appears as No. 6030, p. 52, of Geophysical Abstracts 105, reported as No. 5357 of this list.

- 5421. Society of Exploration Geophysicists. The titles and abstracts of papers presented at the Denver meeting (April 22-24, 1942) are listed in *Geophysics*, Vol. 7, No. 3, 334-340. Those of particular interest to seismologists are listed in this issue of the *Bibliography* under the names of the authors as follows: Nettleton; Swan; Deacon; Schwartz; Gillin, Shock and Alcock; Dobrin; Sharpe; Waters and Arnett; Dix.
- 5422. Sparks, Neil R., "A Note on a Rationalized Velocity Depth Equation", Geophysics, Vol. 7, No. 2, 142-143, Houston, April, 1942.
- —— Sparks, Neil R., "Modulated Steady-State Reflection-Seismic Surveying" (Patent). U.S. No. 2,235,089, issued March 18, 1941. See No. 5405 of this list.
- 5423. Stoneley, R., "The Figure of the Earth", Nature, Vol. 150, No. 3803, 339-341, London, Sept. 19, 1942.

 This discussion is reported also in The Observatory, No. 810, Vol. 64, 318-325, London, Oct., 1942, as having taken place on Aug. 14, 1942, in the rooms of the Royal Astronomical Society.
- 5424. Suero, Tomas, "Procedimientos empleados en geología del subsuelo en los EE. UU. de Norteamérica", Boletin de Informaciones Petroleras, Ano 19, No. 213, 27-40, 8 fig., bib., Buenos Aires, May, 1942.
- 5425. Swan, B. G., "Local Areal Distribution of Velocities in the Texas Gulf Coast", Geophysics, Vol. 7, No. 4, 367–392, 22 fig., Menasha, Oct., 1942.
- —— Swan, B. G., "Areal Distribution of Velocities in the Texas Gulf Coast" (Abstract). See No. 5421 of this list.
- 5426. Tillotson, Ernest, "The Cause of Earthquakes", Nature, No. 3785, 539-540, bib., London, May 16, 1942.
- 5427. Tsuboi, Chuji, "Isostasy and Maximum Earthquake Energy", Proceedings, Imperial Academy of Japan, Vol. 16, No. 9, 449–454, Tokyo, 1940.
 An abstract, by W. Ayvazoglou, appears as No. 6138, p. 88, of Geophysical Abstracts 106, reported as No. 5357 of this list.
- 5428. Ulrich, Franklin P., "Earthquake Laws in the United States", Revue pour l'Étude des Calamités, Tome 5, Nos. 16-17, 48-53, Geneva, Jan.-June, 1942.

- 5429. UNITED STATES COAST AND GEODETIC SURVEY, "Selection, Installation and Operation of Seismographs". Pamphlet issued by the Department of Commerce, 42 pp., 33 illus. Price 10c. from Supt. of Documents, Government Printing Office, Washington, 1942.
- 5430. Von Thyssen, Stephan, "Drehwaageregistrierungen unter gleichzeitiger Einwirkung elastischer Wellen", Zeitschrift für Geophysik, Vol. 16, No. 5/6, 210-213, Brunswick, 1940.

The author's abstract, translated by W. Ayvazoglou, appears as No. 6004, p. 44, of Geophysical Abstracts 105; reported as No. 5357 of this list.

5431. Von Thyssen, Stephan, "Geophysikalische Arbeiten im ungarischen Raume östlich der Donau unter besonderer Berücksichtigung von Reflexionsmessungen" Oel und Kohle, Vol. 37, No. 5, 77-83, Berlin, 1941.

An abstract, by W. Ayvazoglou, appears as No. 6172, p. 98, of Geophysical Abstracts 106, reported as No. 5357 of this list.

- 5432. Wadati, K., and Yamamoto, T., "On the Construction of a Long-Period Seismometer" (in Japanese), Journal, Meteorological Society of Japan, Vol. 18, 117–125, Tokyo, 1940.

 An abstract, by Y. Kodaira, appears as No. 6173, p. 98, of Geophysical Abstracts 106, reported as No. 5357 of this list.
- 5433. Wadsworth, F., "The Wiechert Vertical Seismograph: An Improved Design", Monthly Notices, Royal Astronomical Society, Geophysical Supplement, Vol. 5, No. 2, 48-53, 5 fig., 1 tab., bib., London, 1942.
- 5434. Wanner, Ernst, "Ueber die Definition der Seismizität einer Gegend", Verhandlungen der Schweizer. Naturforschenden Gesellschaft, 126-127, Chur, 1938. E.W.
- Warthin, A. S., Jr., and Hills, T. M., "Experiments in Geyser Action". See No. 5381 of this list.
- --- Waters, Kenneth H., and Arnett, R. D., "Aspects of Seismic Curved Path Computations" (Abstract). See No. 5421 of this list.
- WEEKS, William H., S.J., "The Lewiston-Auburn, Maine Earthquake of March 8, 1942". See No. 5395 of this list.
- 5435. White, Merit P., "A Method of Calculating the Dynamic Force on a Building during an Earthquake", *Bulletin*, *Seismological Society of America*, Vol. 32, No. 3, 193–203, 7 fig., 2 tab., bib., Berkeley, July, 1942.
- 5436. Willis, Bailey, "American Geology, 1850-1900", Science No. 2486, Vol. 96, 167-172, New York, August 21, 1942.
- 5437. Wilson, John H., "Geophysics in the Permian Basin", Geophysics, Vol. 7, No. 3, 270-271, Houston, July, 1942.
- 5438. Wolf, Alfred, "The Limiting Sensitivity of Seismic Detectors", Geophysics, Vol. 7, No. 2 115-122, Houston, April, 1942.

 A.W.

5439. Wood, Harry O., "A Chronologic Conspectus of Seismologic Stations", Bulletin, Seismological Society of America, Vol. 32, No. 2, 97–159, 3 fig., 1 tab., Berkeley, April, 1942.

This is a valuable reference list of seismologic stations brought up to date.

E.A.H.

- WYCKOFF, Ralph D., "Method and Apparatus for Surveying Wells" (Patent). U.S. No. 2,233,992, issued March 4, 1941. See No. 5405 of this list.
- WYCKOFF, Ralph D., "Seismograph Amplifier" (Patent). U.S. No. 2,276,708, issued March 17, 1942. See No. 5406 of this list.
- WYCKOFF, Ralph D., "Apparatus for and Method of Seismograph Prospecting" (Patent). U.S. No. 2,276,709, issued March 17, 1942. See No. 5406 of this list.
- Yamamoto, T., and Wadati, K., "On the Construction of a Long-Period Seismometer" (in Japanese). See No. 5432 of this list.
- ZUSCHLAG, Theodor, "Method of Geophysical Exploration" (Patent). U.S. No. 2,241,874, issued May 13, 1941. See No. 5405 of this list.

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