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5935. ALCOCK, E. D., "The Review and Analysis of Seismic Data", *Geophysics*, Vol. 10, No. 3, 338-344, Menasha, July, 1945.

5936. ALCOCK, F. J., "Logan's Fault", *Journal, Royal Astronomical Society of Canada*, Vol. 39, No. 6, Vol. 39, No. 6, 213-216, 1 fig., Toronto, July-August, 1945.

— ALLEN, W., "Notes on Recent Observations of Remnants". See No. 5958 of this list.

5937. AMERICAN JOURNAL OF SCIENCE, "Daly Volume", *American Journal of Science*, Vol. 243-A, 1-xvi + 541 pp., New Haven, 1945.

This special volume of the *American Journal of Science* is issued in honour of Dr. Daly who has retired recently from his thirty year's tenure of the Sturgis Hooper Professorship of Geology at Harvard University. It contains 27 contributed papers of which three are of particular interest to seismologists. They are reported in this issue under the names of the respective authors: Gutenberg, Jeffreys and Longwell.

5938. ANGENHEISTER, G., "Bestimmung einer Grenzfläche durch Laufzeiten oder Richtungswinkel der reflektierten Wellen", *Zeitschrift für Geophysik*, Vol. 17, 309-316, Braunschweig, 1942.

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— ATHY, L. F., and McCOLLUM, E. V., "Seismic Surveying" (Patent). See No. 6004 of this list.

5939. AYVAZOGLU, W., and SKITSKY, V., "Geophysical Abstracts 119", *U.S. Bureau of Mines, Information Circulars*, No. 7310, 1-77, March, 1945.

The above issue contains Abstracts 7644-7785, together with an index to Abstracts given in Circulars 116-119, inclusive.

5940. AYVAZOGLU, W., and SKITSKY, V., "Bibliography of Russian Literature on Geophysical Exploration 1929-1941", *U.S. Bureau of Mines, Information Circulars*, No. 7323, 44 pp., 521 items, Washington, June, 1945.

The section on seismological methods is given on pp. 19-26, items 223-303. The items listed are all published in Russian, but the entries in the *Bibliography* are printed in English. All references to Russian periodicals are entered without abbreviation, which is a valuable aid. There is no abstract given in any case. Many of the entries have already been abstracted in the series *Geophysical Abstracts*.

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- BAZHAW, W. O., and PARR, J. O., Jr., "Seismic Surveying" (Patent), U.S. No. 2,354,659, Aug. 1, 1944.

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- BEGUN, S. J.,

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(2) "Timing Device" (Patent), U.S. No. 2,370,134, issued Feb. 27, 1945.
See No. 6007 of this list.

5944. BIRKENHAUER, Henry F., S.J., "A Study of House Vibrations from Quarry Blasts", *Bulletin, Seismological Society of America*, Vol. 35, No. 3, 99-115, 10 fig., bib., Berkeley, July, 1945.

5945. BODLE, Ralph R., "United States Earthquakes 1943", *Publication, U.S. Coast and Geodetic Survey*, No. 672, 47 pp., 15 fig., 13 tab., Washington, 1945.

The above valuable compilation is one of a series published by the Coast and Geodetic Survey, Washington. It may be obtained from the Superintendent of Documents, U.S. Government Printing Office, Washington, at the nominal price of 15 cents.

- BORN, W. T., and WEATHERBY, B. B., "Seismic Surveying" (Patent). See No. 6004 of this list.

5946. BRANSON, N. G., "Strain-gauge Amplifier", *General Electric Review*, Vol. 48, No. 4, 55-58, 4 fig., New York, April, 1945.

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5949. BRUCKSHAW, J. McG., "Geophysical Methods Applied to Oil Prospecting", *Journal, Institute of Petroleum*, Vol. 30, No. 250, 271-312, London, 1944.

An abstract appears as No. 7879, p. 32, of *Geophysical Abstracts 120*, reported as No. 5941 of this list.

5950. BRUGGEN, Juan, "Contribucion a la geologia sismica de Chile", Santiago de Chile, University of Santiago Press, 132 pp., 1944.

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5951. BULLARD, E. C., "Geologic Time", *Memoirs and Proceedings, Manchester Literary and Philosophical Society*, Vol. 86, (Session 1943-45), 55-82, 6 fig., 4 tab., 1 pl., bib., Manchester, Feb., 1945.

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5957. CERNUSCHI, Felix, "Cosmological Implications of the Atomic Bomb", *Sky and Telescope*, Vol. 5, No. 2, p. 9 *seq.*, Cambridge, Mass., Dec., 1945.

The above is the second in a series of articles on the subject indicated. On p. 11, the author is speaking on the "By-products of the Program" and suggests that atomic bombs could be set off at specified points at exactly scheduled times and recorded on seismographs at great distances. This would permit a seismic survey to considerably greater depths than is now possible.

5958. CHEMICAL, METALLURGICAL AND MINING SOCIETY OF SOUTH AFRICA, "Fiftieth Anniversary (1894-1944) Commemoration Journal", 67 pp., illus., Johannesburg, March, 1944.

At the close of this commemoration issue (pp. 39-67) is given a list of the papers presented before the Society during the past fifty years. Many of those listed have already been reported in the *Bibliography of Seismology*. There are three, however, which have not been listed. These are given below:

- (1) WOOD, H. E., "The Witwatersrand Earth Tremors", April, 1914.
- (2) ALLEN, W., "Notes on Recent Observations of Remnants", July, 1931.
- (3) GRAY, C. J., "Rock Bursts: The Effect of Crust Movements on Stope Remnants and Workings in Their Vicinity", April, 1932.

- CLOUD, R. T., "Amplification Control in Seismic Surveying" (Patent), U.S. No. 2,375,283, issued May 8, 1945. See No. 6008 of this list.

5959. COTTON, C. A. The above author contributes two lengthy reviews of recent papers by M. Ongley, in the *Journal of Geology*, Vol. 53, No. 3, 210-212, 2 fig. These papers are entitled: "Surface Trace of the 1855 Earthquake", and "Wairarapa Earthquake of 24th June, 1942, together with Map showing Surface Traces of Faults Recently Active". These were reported as Nos. 5754 and 5753, respectively, in these lists.

- COTTRELL, R. B., "Accelerometer" (Patent), U.S. No. 2,377,212, issued May 29, 1945. See No. 6008 of this list.

5960. COWLES, Laurence G., "The Narrow-band Resistance-coupled Amplifier", *Geophysics*, Vol. 10, No. 3, 394-405, 10 fig., Menasha, July, 1945.

- DALE, C. R., "Record Reproducing Device" (Patent), U.S. No. 2,369,284, issued Feb. 13, 1945. See No. 6007 of this list.

- DARNELL, E. F., "Loading Basket for Explosive Charges" (Patent), U.S. No. 2,377,763, issued June 5, 1945. See No. 6008 of this list.

- DIJKSTERHUIS, P. H., "Device for Converting Variations of a Mechanical Quality into Variations of an Electric Voltage" (Patent). See No. 6005 of this list.

5961. DIX, C. Hewitt, "The Interpretation of Well Shot Data, II", *Geophysics*, Vol. 10, No. 2, 160-170, 5 fig., Tulsa, April, 1945.

5962. DRESBACH, C. H., "Organization of Geophysical Parties for Foreign Exploration", *Geophysics*, Vol. 10, No. 2, 137-159, Tulsa, April, 1945.

5963. DU TOIT, Alexander, "Discussion: Further Remarks on Continental Drift", *American Journal of Science*, Vol. 243, No. 7, 404-408, bib., New Haven, July, 1945.
5964. EBY, J. B., "Seismic and Resistivity Geophysical Exploration Methods", *U.S. Waterways Experimental Station, Technical Memoranda*, No. 198-1, 90 pp., Vicksburg, Miss., 1943.
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- EHRGOTT, K., and HAGG, A. C., "Vibration Pickup" (Patent). See No. 6006 of this list.
- EISLER, J. D., "Seismic Surveying" (Patent). See No. 6005 of this list.
- EMERY, K. O., and SHEPPARD, F. P., "Submarine Photography off the California Coast". See No. 6034 of this list.
5965. FAGERLUND, Gunnar O., "A Flood-developed Chasm over a Buried Fault", *Volcano Letter*, No. 488, 1-2, 3 fig., Hawaii, April-June, 1945.
- FAY, C. H., "Seismograph Amplification Gain Control" (Patent), U.S. No. 2,352,825, July 4, 1944.
Reported as No. 7914, p. 43, of the patents indicated in No. 6002 of this list.
5966. FINCH, R. H., "The November-December 1944 Crisis at Kilauea", *The Volcano Letter*, No. 486, Hawaii, Oct.-Dec., 1944.
5967. FLEMING, J. A., "Nicholas Hunter Heck, Geophysicist", *Terrestrial Magnetism and Atmospheric Electricity*, Vol. 50, No. 2, 141-143, with portrait, Baltimore, June, 1945.
The above is a short sketch by one of his colleagues of the work done by Captain Heck who has recently retired from the Coast and Geodetic Survey, Washington.
5968. GABY, Phil P., "A New Type of Seismic Cross-Section wherein Accuracy of Representation is Rendered Insensitive to Velocity Error", *Geophysics*, Vol. 10, No. 2, 171-185, 8 fig., Tulsa, April, 1945.
5969. GALL, D. C., "A Galvanometer Amplifying System of Great Sensitivity", *Journal of Scientific Instruments*, Vol. 22, No. 11, 218-219, 1 fig., bib., London, Nov., 1945.
5970. GAMBURTSEV, G. A., "On a Mode of Areal Seismic Prospecting by the Correlation Refraction Method", *Comptes rendus, Académie des Sciences, U.R.S.S.*, Vol. 43, No. 6, 239-241, Moscow, 1944.
A review by B. Skitsky appears as No. 7970, p. 15, of *Geophysical Abstracts 121*, reported as No. 5942 of this list.
5971. GEBHARDT, R. E., "Earthquake Notes", Vol. 16, No. 4, Washington, June, 1945.
The above periodical is the official organ of the Eastern Section, Seismological Society of America. Items of interest to seismologists and intended for publication in the *Notes* should be sent to R. E. Gebhardt, U.S. Coast and Geodetic Survey, Washington.

The present issue contains reports on: The Brazeau, Missouri, Earthquake of January 7, 1944 (LeRoy Buckie); The Missouri Earthquake of September 25, 1944; Determinations of geographic coordinates in Greenland; Earthquake in Britain, Earthquake in Japan; Recent earthquakes; Report of Seismological Investigations Committee (British Association); Personalia; New idea of continental drift; Reports and Papers, Section of Seismology (A.G.U.). Papers by Macelwane, Bodle, Ulrich, Murphy, Swainson (all reported elsewhere in this *Bibliography*).

- GRAY, C. J., "Rock Bursts: The Effect of Crust Movements on Stope Remnants and Workings in Their Vicinity". See No. 5958 of this list.
- GREEN, W. G., "Seismic Prospecting" (Patent), U.S. No. 2,364,209, issued Dec. 5, 1944. See Nos. 6003 and 6006 of this list.
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- GUTENBERG, Beno, "Variations in Physical Properties within the Earth's Crustal Layers", pp. 285-312 (6 fig., 10 tab., bib.) of the Daly Volume of the *American Journal of Science*, reported as No. 5937 of this list.
5973. GUTENBERG, Beno, "Magnitude Determination for Deep-focus Earthquakes", *Bulletin, Seismological Society of America*, Vol. 35, No. 3, 117-129, 5 fig., 2 tab., bib., Berkeley, July, 1945.
5974. GUTENBERG, Beno, and RICHTER, C. F., "Seismicity of the Earth", *Bulletin, Geological Society of America*, Vol. 56, No. 6, 603-667, 12 fig., 25 tab., bib., New York, June, 1945.
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- HAGG, A. C., and EHRGOTT, K., "Vibration Pickup" (Patent). See No. 6006 of this list.
- HATHAWAY, C. M., "Oscillograph Galvanometer" (Patent), U.S. No. 2,368,831, issued Feb. 6, 1945. See No. 6007 of this list.
5975. HAYES, R. C., "Earthquakes in New Zealand during the Year 1944", *Dominion Observatory (N.Z.) Bulletins*, No. S-76. Extracted from the *New Zealand Journal of Science and Technology*. Vol. 27, No. 1, Sec. B, 33-35, 1 map, 1 tab., Wellington, 1945.
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- An extended abstract appears as No. 7883, p. 33, of *Geophysical Abstracts 120*, reported as No. 5941 of this list.
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— HUBBY, L. M., LAY, R. L., and TREYBIG, B. H., Jr., "Method of Seismic Prospecting" (Patent), U.S. No. 2,351,524, June 13, 1944.

Reported as No. 7909, p. 41, of the patents indicated in No. 6002 of this list. See also No. 6005 of this list.

— JEFFREYS, Harold, "Types of Isostatic Adjustment", pp. 352-359 (2 fig., bib.) of the Daly Volume of the *American Journal of Science*, reported as No. 5937 of this list.

— JOHNSON, J. B., "Explosive Cartridge" (Patent), U.S. No. 2,378,223, issued June 12, 1945. See No. 6008 of this list.

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5984. LAY, Roy L., "Repeated P-Waves in Seismic Exploration of Water Covered Areas," *Geophysics*, Vol. 10, No. 4, 467-471, 3 fig., Menasha, Oct., 1945.
- LAY, R. L., TREYBIG, B. H., and HUBBY, L. M., "Method of Seismic Prospecting" (Patent), U.S. No. 2,351,524, June 13, 1944.
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- LONGWELL, Chester R., "The Mechanics of Orogeny", pp. 417-447 (12 fig., bib.) of the Daly Volume of the *American Journal of Science*, reported as No. 5937 of this list.
5986. LOUDERBACK, George D., "Harry Fielding Reid, 1859-1944" (Obituary), *Bulletin, Seismological Society of America*, Vol. 35, No. 3, 95-97, 1 pl., Berkeley, July, 1945.
5987. LYONS, Paul L., "The Low Velocity Layer in Seismic Exploration", *Mines Magazine*, Vol. 35, No. 10, 546-548, 591, 3 fig., bib., Golden, Oct., 1945.
- MAILLET, Raymond, "Method and Apparatus for Seismic Underground Prospecting" (Patent), U.S. No. A.P.C. 254,743, vested in Alien Property Custodian, published May 18, 1943. Reported as No. 7756, p. 38, of the patents indicated in No. 6001 of this list.
- MANZANERA, Lorenzo, "Apparatus for Recording Wave-form Signals" (Patent), U.S. No. 2,348,401, May 9, 1944.
Reported as No. 7773, p. 43, of the patents indicated in No. 6001 of this list. See also No. 6005 of this list.
5988. MARTIN, H., "Einschwingvorgang und Stossaufzeichnung" *Physikalische Zeitschrift*, Vol. 43, 222-226, Leipzig, 1942.
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5989. MASARSKII, S. I., "Some Possible Conflicts in the Interpretation of Hodographs of Waves Refracted from a Three-layered Structure" (in Russian), *Akademiia Nauk S.S.S.R., Trudy Seismologicheskogo Instituta*, No. 106, 42-44, Moscow, 1941.
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- McDERMOTT, E., "Seismic Detector System" (Patent), U.S. No. 2,375,570, issued May 8, 1945. See No. 6008 of this list.

5990. MEISSER, Otto, "Praktische Geophysik für Lehre, Forschung, und Praxis", 368 pp. Price 37.50 RM., T. Steinkopff, Dresden, 1943.

The above is a text book presenting the geophysical subject matter required for geophysics students by the German curriculum, effective November 1941. See abstract by V. S., as No. 7754, p. 37, of *Geophysical Abstracts 119*, reported as No. 5939 of this list.

- MERTEN, Eugen, "Sensitivity Control for Seismic Recording" (Patent), U.S. No. 2,349,186, May 16, 1944.

Reported as No. 7777, p. 45, of the patents indicated in No. 6001 of this list. See also No. 6005 of this list.

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Reported as No. 7917, p. 44, of the patents indicated in No. 6002 of this list.

- MINTON, J. P., "Contractor-Expander for Electric Seismographs" (Patent), U.S. No. 2,354,420, July 25, 1944.

Reported as No. 7919, p. 44, of the patents indicated in No. 6002 of this list.

- MINTON, J. P., "Apparatus for Recording Seismic Waves" (Patent). See No. 6006 of this list.

- MINTON, J. P., "Geophysical Prospecting Apparatus" (Patent), U.S. No. 2,371,973, issued March 20, 1945. See No. 6007 of this list.

- MINTON, J. P., "Seismograph" (Patent), U.S. No. 2,375,433, issued May 8, 1945. See No. 6008 of this list.

5991. MONTANDON, Frederic, "Les séismes de forte intensité en Suisse", *Revue pour l'étude des Calamités*, Vol. 5, Nos. 18-19, 107-169; Vol. 6, No. 20, 3-49, Geneva, 1943.

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- MOORE, R. M., and HOSKINS, E. E., "Seismic Prospecting System" (Patent), U.S. No. 2,378,925, issued June 26, 1945. See No. 6008 of this list.

- MORITZ, B. E., Jr., "Gain Control" (Patent). See No. 6004 of this list.

- MOSER, W., "Automatic Volume Control Device" (Patent). See No. 6006 of this list.

- MOUNCE, W. D., "Automatic Gain Adjusting Device for Reflection Seismographs" (Patent). See No. 6006 of this list.

- MUFFLY, G., "Amplifier" (Patent), U.S. No. 2,370,483, issued Feb. 27, 1945. See No. 6007 of this list.

5992. MURRAY, Harold W., "Profiles of the Aleutian Trench", *Bulletin, Geological Society of America*, Vol. 56, No. 7, 757-781, 14 fig., 1 pl., bib., New York, July, 1945.

- MUZZEY, D. S., "Vibration Detector" (Patent), U.S. No. 2,353,920, issued July 18, 1944.
See No. 5942 of this list.
5993. NATURE. Brief items of interest to seismologists have appeared in recent issues of Vol. 156 of the above periodical (London, 1945) as follows:
- (1) "Recent Earthquakes", No. 3951, p. 79, July 21.
 - (2) "Recent Earthquakes", No. 3955, p. 201, Aug. 18.
 - (3) "Earthquakes during the First Quarter of 1945", No. 3957, p. 264, Sept. 1.
 - (4) "Frequency of Earthquakes in California", No. 3960, p. 371, Sept. 22.
 - (5) "Earthquakes in New Zealand during 1942-43", No. 3961, p. 396, Sept. 29.
 - (6) "Recent Earthquakes", No. 3966, 544-545, Nov. 3.
 - (7) "Earthquake in the Arabian Sea", No. 3972, 712-713, Dec. 15.
- NAVARTE, P. E., "Blasting Cap" (Patent), U.S. No. 2,377,804, issued June 5, 1945. See No. 6008 of this list.
5994. NETTLETON, L. L., "Preparation of Manuscripts for Publication in Geophysics", *Geophysics*, Vol. 10, No. 3, 421-428, 1 fig., Menasha, July, 1945.
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- (2) EISLER, J. D., "Seismic Surveying", U.S. No. 2,346,369, April 11, 1944.
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- (4) DIJKSTERHUIS, P. H., "Device for Converting Variations of a Mechanical Quality into Variations of an Electric Voltage", U.S. No. 2,348,245 (Vested in Alien Property Custodian), May 9, 1944.
- (5) MANZANERA, L., "Apparatus for Recording Wave Form Signals", U.S. No. 2,348,401, May 9, 1944.
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- (9) NEWCOMB, R. D., "Automatic Volume Control", U.S. No. 2,350,803, June 6, 1944.
- (10) RICKER, N. H., "Seismic Prospecting", U.S. No. 2,351,456, June 13, 1944.
- (11) LAY, R. L., TREYBIG, B. H., Jr., and HUBBY, L. M., "Method of Seismic Prospecting", U.S. No. 2,351,524, June 13, 1944.

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- (7) RITZMANN, O. F., "Apparatus for Seismograph Prospecting", U.S. No. 2,364,755, Dec. 12, 1944.
- (8) PETTY, O. S., "Seismic Surveying", U.S. No. 2,365,289, Dec. 19, 1944.
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An official disclosure was recently made that oil has been discovered in England during the war and is being extensively developed. The location of the oil fields is secret. The total production in the war period has reached 78,000,000 gallons. The seismic method of survey was employed and has proved to be of great value. (V.S.)

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The initials appended to various items throughout the *Bibliography* indicate, in each case, the contribution by the respective collaborator.

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SUBJECT INDEX FOR THE YEAR 1945

The following subject index for the items listed in the *Bibliography of Seismology* for the year 1945 has been prepared in the same form as that for the items listed in 1944 (see pp. 283-284, Vol. XIII, No. 16, of these *Publications*) and may be considered a continuation of that index.

- A1. Aids to Seismological Study: Nos. 5994, 6009. See also M1. (Maps).
- B1. Building Construction: No. 5978. See also E2. (Engineering).
- B2. Bibliographies: Nos. 5901, 5939, 5940, 5941, 5942.
- B2.1. Reviews of Papers, Textbooks, etc.: Nos. 5959, 6037.
- C1. Catalogues of Earthquakes, Lists of Aftershocks, etc.: Nos. 5921, 5945, 5993, 6018, 6019.
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