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BY

ERNEST A. HODGSON

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April, May, June, 1936

3042. ACADÉMIE DES SCIENCES DE L'URSS. The following papers of interest to seismologists have recently appeared in the publications of the above organization:

- (1) VARDANJANC (WARDANIANZ), L., "Seismotectonics of the Caucasus" (in Russian), No. 64, 87 pp., 2 pl., Moscow-Leningrad, 1935.
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- (3) SCHERMANN, D., "Quelques cas spéciaux du problème de la théorie d'élasticité à symétrie axiale" (in Russian, with short abstract in French), No. 71, 24 pp., bib., 1935.
- (4) ROZOVA, E., "Construction of Travel-time Curves and Determination of Principal Seismic Elements for Central Asia" (in Russian, with short abstract in English), No. 72, 28 pp., 7 fig., 3 pl., 1936. N.V.R.

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(1) "Earthquake Notes," Vol. 7, No. 1-2, 26 pp., 7 fig., Washington, Sept., 1935.

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In addition to a long series of Notes, No. 1-2 reports the proceedings of the Tenth Annual Meeting of the Eastern Section, Seismological Society of America, held at Ottawa, Canada, May 27-28, 1935. An abstract of each of the papers is given. For the titles of these see under the author names in this issue of the *Bibliography*. Papers are presented by: Bradford, Delaney, Blake, Neumann, DeLury, Dahm, Brown, Conant, Henderson, Gibbs, Benioff, Doxsee, Leet, Hodgson, Goldthwait, Sharpe, King, Miller, Bradford and Macelwane, O'Donnell, Bodle, Wenner and Gebhardt, Schon, Heck, Ulrich, Macelwane, Byerly, and Brennan.

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- BURRARD, S. G., "On the Origin of the Himalaya Mountains" and "Investigations of Isostasy in Himalayan and Neighbouring Regions." See Nos. 3072 (1) and 3072 (4) of this list.
- BYERLY, Perry, "Seismology at the University of California" (abstract). See No. 3050 (1) of this list.
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— KAWASUMI, Hiroshi, and SUZUKI, Takeo, "Reflexion and Refraction of Seismic Waves at Discontinuity Interfaces." See No. 3066 (6) of this list.

3089. KELLY, Sherwin F., "Exploring Down," *Exp. Eng.*, Vol. 13, Nos. 9 and 10, 303-312, Wilmington, 1935.

An abstract by W. Ayvazoglou appears as No. 2918, p. 1653, of *Geophysical Abstracts*, reported as No. 3094 of this list. F.W.L.

3090. KINBARA, T., and TAKEMURA, T., "Reports on the Siduoka Earthquake of July 11, 1935," *Bul. Eq. Res. Inst.*, Vol. 13, Part 4, 966-984, 6 fig., Tokyo, Dec., 1935.

The paper is in Japanese with a short abstract in English.

— KING, Louis V., "A Portable Hot-wire Seismometer" (abstract). See No. 3050 (1) of this list.

— KISHINOUE, Fuyuhiko, "The Direction of the First Motion of an Earthquake in the Kwanto District." See No. 3066 (1) of this list.

— KITHIL, Karl Ludwig, "Seismo-vibrometer," and "Seismo-vibrometer" (Patents). See Nos. 3109 (4) and (5) of this list.

— KLIPSCH, Paul W., "Performance of Oscillograph Amplifiers to Transmit Shock Excitation." See No. 3124 (3) of this list.

3091. KORIDALIN, E. A., and MASARSKY, S. J., "Application of Seismic Reflection Method to Geological Prospecting in the Region of Ishimbaev" (in Russian), *Neftianoe Khozi-aistvo*, Vol. 28, No. 8, 27-30, Moscow, 1935. F.W.L.

3092. KRAHMANN, R., "Geophysical Investigations upon Mineral Deposits in Southern Africa" (Continuation until 1934), *Bei. Angew. Geoph.*, Bd. 5, Heft 4, 425-450, bib., Leipzig, 1936.

The paper compiles all the information in the possession of the writer with regard to geophysical investigations upon mineral deposits in South Africa up to the end of June, 1934. This is a continuation of a previously published list (to the end of June, 1933), published in the same journal, Bd. 1, Heft 4, 88-116, Leipzig, 1933.



3093. KRAUS, E., "Die Bewegung des Erdbebens am 8. Oktober 1930 in suddeutschen Bau," *Bericht des Naturwissenschaftlichen Vereins für Schwaben und Neuburg*, Vol. 50, 93 pp., 4 fig., 3 tab., Augsburg, 1933.

The earthquake belongs in the series which is connected with mountain-building tendencies in the Alps. R.Z.

3094. LEE, Frederick W., "Geophysical Abstracts," No. 81, 1669-1697, Jan.; No. 82, 1737-1760, Feb.; No. 83, 1761-1781, Mar.

Index to Nos. 69-80, compiled by Frances Hatch, appears as pp. 1699-1736 of *Geophysical Abstracts*.

- LEE, L. Don, "Prospecting with Seismographs; Oil, Gold, Glaciers, and Local Earthquakes," "Data on Surface-layers in New England—First Report (Chairman's Address)," "Present Status of Seismology in New Zealand" (abstracts). See No. 3050 (1) of this list.

- LEICESTER, P., and BROWN, J. Coggin, "The Pyu Earthquakes of 3rd and 4th Dec., 1930, and Subsequent Burma Earthquakes up to Jan., 1932." See No. 3054 of the this list.

- MAATSCHAPPIJ VOOR WETENSCHAPPELIJK AARDLAGENONDERZOEK (Netherlands), "Procédé pour faciliter la découverte de gisements à l'aide d'ondes élastiques périodiques" (Patent). See No. 3109 (17) of this list.

- MACELWANE, James B., S.J., "Progress Report of the Jesuit Seismological Association" (abstract). See No. 3050 (1) of this list.

- MACELWANE, James B., S.J., and BRADFORD, D. C., "A Preliminary Sketch of the Seismic History of Missouri" (abstract). See No. 3050 (1) of this list.

- MASARSKY, S. J., and KORIDALIN, E. A., "Application of Seismic Reflection Method to Geological Prospecting in the Region of Ishimbaev." See No. 3091 of this list.

3095. MATUO, H., "Damages to the Quay Walls of Simizu Harbour due to the Earthquake on July 11, 1935, and the Seismic Stability of the Quay Walls," *Bul. Eq. Res. Inst.*, Vol. 13, Part 4, 999-1009, 9 fig., Tokyo, Dec., 1935.

3096. MATUZAWA, Takeo, "Seismometrische Untersuchungen des Erdbebens vom 2. März 1933. III. Erdbebenstätigkeit vor un nach dem Grossbeben. Allgemeines über Nachbeben," *Bul. Eq. Res. Inst.*, Vol. 14, Part 1, 38-67, 17 fig., 13 tab., bib., Tokyo, Mar., 1936.

- MATUZAWA, Takeo, "An Example of Surface Reflexion of Plane Elastic Waves." See No. 3066 (2) of this list.

- MCCOLLUM, Burton, "Method and Apparatus for Studying Geologic Contours" (Patent). See No. 3109 (8) of this list.

3097. MCKINNEY, E. G., "Seismographing for Oil," Gulf Pub. Co. (P. O. Drawer 2811, Houston, Texas), 38 pp. Price \$2. Houston, 1935. C.A.H.+F.W.L.

3098. McLEAN, R. S., and MOORE, W. W., "Computation of the Vibration Period of Steel Tank Towers," *Bul. Seis. Soc. Am.*, Vol. 26, No. 1, 63-67, 3 fig., Berkeley, Jan., 1936.

— MIKAWA, Ituro, HAGIWARA, Takahiro, YOSIYAMA, Ryoiti, and HAYENO, Seizo, "Seismic Prospecting of the Layers Underlying Tamagawa Bridge." See No. 3066 (9) of this list.

— MILLER, A. H., "Gravity Anomalies in Canada" and "Geophysical Prospecting in Canada" (abstracts). See No. 3050 (1) of this list.

3099. MILLS, Brad,

(1) "Geophysical Programs in the Gulf-coast District are Exacting Technical Operations (Parts I and II)," *Oil Weekly*, Vol. 79, No. 4, 21-28 and No. 5, 22-27, Houston, 1935.

(2) "Geophysical Operations Have Been Very Successful in San Joaquin Valley during Past Year," *Ibid.*, No. 4, 28-29.

The above papers are reported, with abstracts by W. Ayvazoglou, as Nos. 2897 (p. 1643) and 2956 (p. 1674) of *Geophysical Abstracts*. See No. 3094 of this list.

F.W.L.

— MITCHELL, Lane, and CRICKMAY, Geoffrey, W., "The Southern Appalachian Earthquake of January 1, 1935." See No. 3060 of this list.

3100. MIYABE, Naomi, "On the Sinking of the Earth's Crust in the Eastern Part of the City of Tokyo," *Bul. Eq. Res. Inst.*, Vol. 13, Part 4, 763-771, 7 fig., bib., Dec., 1935.

— MOORE, W. W., and McLEAN, R. S., "Computation of the Vibration Period of Steel Tank Towers." See No. 3098 of this list.

3101. MORGAN, Charles Gill, "Thickness of Ice Shield in Antarctica is Determined by Geophysics," *Oil and Gas Jour.*, Vol. 34, No. 10, p. 43, Tulsa, 1935.

A brief abstract by W. Ayvazoglou appears as No. 2776, p. 1582, of *Geophysical Abstracts*, reported as No. 3094 of this list.

F.W.L.

— MUSCHKETOW, D., and OCZAPOWSKI, B. L., "Geologische Erwägungen zu den neuen Schweremessungen auf dem Pamir und in Karelien" und "Schweremessungen mittels Pendeln, ausgeführt auf dem Pamir und in Karelien in den Jahren 1932 und 1933." See No. 3105 of this list.

— MUSYA, Kinkiti, "Earthquake and Abnormal Behaviours of Fish." See No. 3066 (7) of this list.

3102. NASU, N., and YASUDA, C., "The Siduoka Earthquake of July 11, 1935," *Bul. Eq. Res. Inst.*, Vol. 13, Part 4, 942-950, 24 fig., Tokyo, Dec., 1935.

The paper is in Japanese with a short abstract in English. The illustrations are excellent.

3103. NATURE. The following short notes of interest to seismologists have appeared in recent issues of Vol. 137 of the above periodical (London, 1936):

- (1) "Canadian Earthquake of November 1, 1935," No. 3466, p. 585, Apr. 4.
- (2) "Eureka (California) Earthquake of June 6, 1932," No. 3472, p. 833, May 16, 1936.

— NEUMANN, Frank, "Some New Data on Long-period Waves in Epicentral Areas" (abstract). See No. 3050 (1) of this list.

3104. NOMITSU, Takaharu,

- (1) "A Theory of Tunamis and Seiches Produced by Wind and Parametric Gradient," *Mem. Col. Sc., Kyoto Imp. Univ., Ser. A*, Vol. 18, 201-214, Kyoto, 1935.
- (2) "Surface Fluctuations of Lake Biwa Caused by Muroto Typhoon," *Ibid.*, 221-238, 9 fig.

An abstract of each of the above papers appears on pp. 10 and 11 of the abstracts section of *Jap. Jour. Ast. Geoph.*, Vol. 13, No. 2, Tokyo, 1936.

— NOVOTORCEV (NOVOTORZEV), V. I., "Method of Successive Approximations Applied to the Study of Vibrations of Structures. The Effect of Shearing Force, Rotatory Inertia, and Longitudinal Vibrations of Rigid Bents" (in Russian). See No. 3042 (2) of this list.

3105. OCZAPOWSKI, B. L., and MUSCHKETOW, D., "Schweremessungen mittels Pendeln, ausgeführt auf dem Pamir und in Karelien in den Jahren 1932 und 1933" und "Geologische Erwägungen zu den neuen Schweremessungen auf dem Pamir und in Karelien," *Bei. Angew. Geoph.*, Bd. 5, Heft 4, 451-479, 7 fig., 2 tab., bib., Leipzig, 1936.

The two papers are by the respective authors in the order named.

3106. ODERMATT, H., "Tremblement de terre du Japon du 2 mars 1933," *Bul. Soc. Neuchâteloise des Sci. Natur.*, Vol. 58, 127-128, Neuchâtel, 1933. R.Z.

— O'DONNELL, George A., S.J., "A New Vector Wave Motion Theory" (abstract). See No. 3050 (1) of this list.

3107. OIL AND GAS JOURNAL, "Consistent Gain in Use of Geophysical Methods Shown in California Fields," *Oil and Gas Jour.*, Vol. 34, No. 25, 158-162, Tulsa, 1935.

An abstract by W. Ayvazoglou appears as No. 2960, p. 1677, of *Geophysical Abstracts*, reported as No. 3094 of this list. F.W.L.

— OWEN, John E., "Method for Surveying Subsurface Formations" and "Seismic Surveying" (Patents). See Nos. 3109 (9) and (13) of this list.

3108. OXFORD UNIVERSITY, "The International Seismological Summary, 1931, January, February, March," 1-164, Oxford, 1935.

3109. PATENTS. The following are patents of interest to seismologists which have been reported recently in *Geophysical Abstracts* (Nos. 77-83), reported as No. 3094 of this list. The three numbers in the bracket in each case refer, respectively, to the item, the page, and the issue number of *Geophysical Abstracts*.

- (1) VOIUTSKY, V. S., "Method of Measuring the Velocity of Propagation of Elastic Waves in Solid Mediums," Russian Patent 40,597. (2748, 1568, 77).
- (2) VOIUTSKY, V. S., "Apparatus for Seismic Prospecting," Russian Patent 42,640. (2751, 1569, 77).
- (3) ANDERSON, John A., "Seismometer," U.S. Patent 1,552,186. (2812, 1598, 78).
- (4) KITHIL, Karl Ludwig, "Seismo-vibrometer," U.S. Patent 1,669,135. (2813, 1598, 78).
- (5) KITHIL, Karl Ludwig, "Seismo-vibrometer," U.S. Patent 1,672,892. (2814, 1599, 78).
- (6) TURNER, Edwin E., "Distance and Depth Finding," U.S. Patent 2,009,459. (2815, 1599, 78).
- (7) TURNER, Edwin E., "Means for Measuring Depths or Distances," U.S. Patent 2,009,460. (2816, 1599, 78).
- (8) McCOLLUM, Burton, "Method and Apparatus for Studying Geologic Contours," U.S. Patent 1,675,121. (2876, 1630, 79).
- (9) OWEN, John E., "Method for Surveying Subsurface Formations," U.S. Patent 1,959,004. (2885, 1633, 79).
- (10) WILLIAMS, Robert Longfellow, "Method and Apparatus for Measuring Distances and Depths," U.S. Patent 2,015,702. (2925, 1658, 80).
- (11) YURIN, G. S., "Seismograph," Russian Patent 26,812. (2928, 1659, 80).
- (12) BLAU, Ludwig W., SLOTNICK, Morris M., and STATHAM, Louis, "Compound Seismograph," U.S. Patent 2,018,756. (2984, 1690, 81).
- (13) OWEN, John E., "Seismic Surveying," U.S. Patent 2,018,737. (2985, 1690, 80).
- (14) GREEN, William G., "Method of Determining Slope of Subsurface Rock Beds," U.S. Patent 2,024,921. (3040, 1756, 82).
- (15) SOCIÉTÉ DE PROSPECTION ÉLECTRIQUE (Procédés Schlumberger), "Procédé et appareillage pour la reconnaissance des terrains traversés par un sondage," French Patent 786,863. (3046, 1758, 82).
- (16) JOHNSON, Earle W., "Seismic Surveying," U.S. Patent 2,028,286. (3085, 1778, 83).
- (17) MAATSCHAPPIJ VOOR WETENSCHAPPELIJK AARDLAGENONDERZOEK (Netherlands). "Procédé pour faciliter la découverte de gisements à l'aide d'ondes élastiques périodiques," French Patent 565,689. (2992, 1692, 81).

— PEOPLES, J. W., EWING, Maurice, and CRARY, A. P., "Seismic Tests on Anthracite." See No. 3124 (1) of this list.

3110. PREY, A., "Über die Elastizitätskonstante der Erde," *Ger. Bei.*, Vol. 44, No. 1, 59-80, Leipzig, 1935.

This is the second paper by the same author on the same subject. The first was reported as No. 570 of these lists.

3111. REVUE PÉTROLIFÈRE. The issue of *La Revue Pétrolifère* (Paris), for Dec. 7, 1935 (No. 660), is devoted almost entirely to geophysics. Articles outline the history and present state of geophysical prospecting in various parts of the world. An outline of the table of contents is given as Item 3037, p. 1755, of *Geophysical Abstracts*, reported as No. 3094 of this list. F.W.L.



- RICHTER, C. F., and GUTENBERG, B., "Magnitude and Energy of Earthquakes." See No. 3074 of this list.
- RICHTER, C. F., and GUTENBERG, B., "On Seismic Waves." See No. 3075 of this list.
- ROSAIRE, E. E., "Strategy and Tactics in Geophysical Exploration for Petroleum." See No. 3124 (4) of this list.
- ROZOVA, E., "Construction of Travel-time Curves and Determination of Principal Seismic Elements for Central Asia" (in Russian with short abstract in English). See No. 3042 (4) of this list.

3112. SAITA, T., "The Shizuoka Earthquake of July 11, 1935," *Bul. Eq. Res. Inst.*, Vol. 13, Part 4, 985-998, 24 fig., 8 tab., Tokyo, Dec., 1935.

The paper is in Japanese with an abstract in English. The illustrations are excellent.

3113. SAITA, T., and SUZUKI, M., "Vibration of a Tall Building Caused by Earthquake Shocks," *Bul. Eq. Res. Inst.*, Vol. 14, Part 1, 104-118, 15 fig., Tokyo, Mar., 1936.

The paper is in Japanese with an abstract in English.

3114. SASSA, Kenzo,

(1) "Volcanic Micro-tremors and Eruption-earthquakes," *Mem. Col. Sc., Kyoto Imp. Univ.*, Series A, Vol. 18, No. 5, 255-293, 28 fig., 11 tab., bib., Kyoto, 1935.

(2) "Micro-seismometric Study on Eruptions of the Volcano Aso," *Ibid.*, Vol. 19, No. 1, 11-56, 27 fig., 3 pl., 4 tab., bib., 1936.

The above papers are respectively Parts I and II of the *Geophysical Studies on the Volcano Aso*.  
K. Sassa.

3115. SAWYER, Edmund O., Jr., "Geophysical Survey by Seismic Reflection," *Pet. World* (Annual Review), 197-208, Los Angeles, 1935.

A review by W. Ayvazoglou appears as No. 3008, p. 1741, of *Geophysical Abstracts*, reported as No. 3094 of this list.  
F.W.L.

- SCHERMANN, D., "Quelques cas spéciaux du problème de la théorie d'élasticité à symétrie axiale" (in Russian with short abstract in French). See No. 3042 (3) of this list.

3116. SCHLÖTZER, A., "Bericht über die Erdbebenwarte des Naturwissenschaftlichen Vereins im Geodätischen Institut der Technische Hochschule, Karlsruhe," *Verhand. Naturwissen. Ver., Karlsruhe*, Vol. 31, 17-19, 1935.

Report for the years 1926-1935.

R.Z.

3117. SCIENCE NEWS-LETTER. Brief notes of interest to seismologists have appeared in Vol 28 (1935) of *Science News-Letter* (Washington) as follows:

- (1) "Central Alaska Shaken by Moderate Earthquake," No. 754, p. 183, Sept. 21.
- (2) "Earthquake Predictions Should Specify the Place," *Ibid.*, p. 184.
- (3) "Deep Earthquakes Show Flaws 62 to 180 Miles Below Crust," *Ibid.*, p. 188.



- (4) "Center of Earthquake was near to Northern Japan," *Ibid.*, p. 190.
- (5) "Earthquake near Equator in New Guinea Region," No. 755, p. 201, Sept. 28.
- (6) "Quake Shakes Sea Bottom off British Columbia," No. 756, p. 221, Oct. 5.
- (7) "Second Earthquake in Month in North Japanese Region," No. 757, p. 237, Oct. 12.
- (8) "West Indian Earthquake Had Submarine Epicenter," No. 763, p. 329, Nov. 23.
- (9) "New Pressures Make Ice Hotter than Boiling Water," No. 765, 355-356, 1 fig., Dec. 7.
- (10) "Quake under Pacific 400 Miles off Ecuador," *Ibid.*, p. 361.
- (11) "Panama Earthquake Was Centered under Caribbean," No. 766, p. 377, Dec. 14.
- (12) "Earthquakes in Pacific and South America," No. 768, p. 404, Dec. 28.

3118. SCIENCE NEWS-LETTER. Brief notes of interest to seismologists appear in Vol. 29 (1936) of *Science News-Letter* (Washington) as follows:

- (1) "Earthquake Reproduced with 'Electric Eye'," No. 769, 3-4, 1 fig., Jan. 4.
- (2) "Earthquake Rocks the Dutch East Indies," No. 771, p. 40, Jan. 18.
- (3) "Deep-seated Earthquake in Northern Argentina," No. 772, p. 55, Jan. 25.
- (4) "North America being Pulled into Pacific Ocean," No. 773, p. 76, Feb. 1.
- (5) "Quake-resisting Strength for Buildings Shown," No. 778, p. 153, Mar. 7.
- (6) "Great Lakes Harbors Growing Deeper Due to Tilt," No. 780, p. 181, Mar. 21.
- (7) "Greatest Hazard from Meteorite Would be Hot Air," No. 783, p. 228, Apr. 11.
- (8) "Severe Earthquake in Celebes Sea," *Ibid.*, p. 231.

3119. SEISMOLOGICAL SOCIETY OF AMERICA. A meeting of the Seismological Society of America was held at Stanford, Cal., April 12-13, 1935. A meeting of the Eastern Section of the Society was held at Ottawa, May 27-28, 1935. The papers presented at each of these meetings are listed (by title and author only) on pages 279 and 281, respectively, of the *Bulletin of the Seismological Society of America*, Vol. 25, No. 3, July, 1935.

3120. SEISMOS GEOPHYSICAL COMPANY, "Recent Geophysical Abstracts." Published by the Seismos Geophysical Company, Hanover, Germany; 49 pp., illus., 1935.

In addition to describing other geophysical apparatus manufactured by the company, the first two sections are devoted to a description of the instruments and methods for prospecting by the seismic method, both refraction and reflection equipment and practice being dealt with. SGC.

3121. SEZAWA, K.,

- (1) "Vibrational Causes of the Overturning of Railway Carriages on the Setagawa Bridge in the Typhoon of Sept. 21, 1934," *Bul. Eq. Res. Inst.*, Vol. 13, Part 3, 715-721, 3 fig., bib., Tokyo, Sept., 1935.
- (2) "Elastic Waves Produced by Applying Statical Force to a Body or by Releasing it from a Body," *Ibid.*, Part 4, 740-749, bib., Dec., 1935.

3122. SEZAWA, K., and KANAI, K.,

- (1) "The  $M_2$  Seismic Waves," *Bul. Eq. Res. Inst.*, Vol. 13, Part 3, 471-475, 5 fig., 1 tab., bib., Tokyo, Sept., 1935.
- (2) "Growth and Decay of Seiches in an Epicontinental Sea," *Ibid.*, 476-483, 1 fig., bib.
- (3) "The Rate of Damping in Seismic Vibrations of a Surface Layer of Varying Density or Elasticity," *Ibid.*, 484-495, 9 fig., bib.

- (4) "Decay in the Seismic Vibrations of a Simple or Tall Structure by Dissipation of Their Energy into the Ground," *Ibid.*, 681-697, 24 fig., bib.
- (5) "Energy Dissipation in Seismic Vibrations of a Framed Structure," *Ibid.*, 698-714, 12 fig., bib.
- (6) "The Nature of Microseisms of Local Type," *Ibid.*, Part 4, 729-739, 10 fig., bib., Dec., 1935.
- (7) "The Effect of Sharpness of Discontinuities on the Transmission and Reflection of Elastic Waves," *Ibid.*, 750-756, 8 fig.
- (8) "Energy Dissipation in Seismic Vibrations of Actual Buildings," *Ibid.*, 925-941, 9 fig., 3 tab., bib.
- (9) "Damped Free Oscillation and Amplitudes in Resonance, with Special Reference to Decay of Seiches in Straits," *Ibid.*, Vol. 14, Part 1, 1-9, 9 fig., 2 tab., bib., Mar., 1936.
- (10) "Elastic Waves Formed by Local Stress Changes of Different Rapidities," *Ibid.*, 10-17, 4 fig.
- (11) "Energy Dissipation in Seismic Vibrations of Actual Buildings of Unlike Structure," *Ibid.*, 119-133, 9 fig., 7 tab., bib.
- (12) "Energy Dissipation in Seismic Vibrations of a Six-storied Structure. Coincidence of Resonance and Corresonance," *Ibid.*, 134-145, 3 fig., 1 tab., bib. K.S.

3123. SHARPE, J. A., "Motion of the Surface of the Earth in the Compressional Phase of a Deep-focus Earthquake, and the Effects of a Layered Crust," *Bul. Seis. Soc. Am.*, Vol. 25, No. 3, 199-222, 10 fig., 4 tab., bib., Berkeley, July, 1935. J.A.S.

For abstract of above paper see *Earthquake Notes*, reported as No. 3050 (1) of this list.

- SLOTNICK, MORRIS M., STATHAM, LOUIS, and BLAU, LUDWIG, W., "Compound Seismograph" (Patent). See No. 3109 (12) of this list.

- SOCIÉTÉ DE PROSPECTION ÉLECTRIQUE (Procédés Schlumberger), "Procédé et appareillage pour la reconnaissance des terrains traversés par un sondage" (Patent). See No. 3109 (15) of this list.

3124. SOCIETY OF PETROLEUM GEOPHYSICISTS. The sixth annual meeting of the above society was held at Wichita, Kansas, March 22, 1935. The following items indicate abstracts of papers there presented which are of interest to seismologists. The abstracts appear on pp. 1548-1549 of *Geophysical Abstracts*, reported as No. 3094 of this list.

- (1) EWING, MAURICE, CRARY, A. P., and PEOPLES, J. W., "Seismic Tests on Anthracite."
- (2) HEILAND, C. A., "Confirmation of Reflection Work in Canada by Drilling."
- (3) KLIPSCH, PAUL W., "Performance of Oscillograph Amplifiers to Transmit Shock Excitation."
- (4) ROSAIRE, E. E., "Strategy and Tactics in Geophysical Exploration for Petroleum."

3125. SOHON, F. W., S.J., "A First Approximation for Deep-focus Seismograms," *Bul. Seis. Soc. Am.*, Vol. 25, No. 4, 311-312, 1 fig., 1 tab., Berkeley, Oct., 1935.

- SOHON, F. W., S.J., "Report on Twenty-four Weeks of Microseismic Activity" (abstract). See No. 3050 (1) of this list.

## 3126. SPARKS, Neil R.,

(1) "Building Vibrations," *Bul. Seis. Soc. Am.*, Vol. 25, No. 4, 381-386, 3 fig., Berkeley, Oct., 1935.

(2) "The Eureka Earthquake of June 6, 1932," *Ibid.*, Vol. 26, No. 1, 13-27, 5 fig., bib., tab., Jan., 1936. N.R.S.

— STATHAM, LOUIS, BLAU, Ludwig W., and SLOTNICK, MORRIS M., "Compound Seismograph" (Patent). See No. 3109 (12) of this list.

— STÖCKE, K., UDLUFT, H., and HERRMANN, H., "Ground Pressure and Plate-statics Tests on the Elastic Properties of Coal-measure Rocks from Upper-Silesian Mines." See No. 3079 of this list.

3127. STONELEY, R., "The Refraction of a Wave Group," *Proc. Camb. Phil. Soc.*, Vol. 31, No. 3, 360-367, Cambridge, Aug., 1935. E.T.

3128. STROMEYER, C. P., "Earth Movements," *Min. Mag.*, Vol. 49, 27-30, 91-95, London, 1933. E.T.

3129. STRUCTURAL ENGINEER, "Earthquake Resistance of Structures," *Struc. Eng.*, Dec., 1934. E.T.

— SUZUKI, M., and SAITA, T., "Vibration of a Tall Building Caused by an Earthquake." See No. 3113 of this list.

— SUZUKI, Takeo, and KAWASUMI, HIROSI, "Reflexion and Refraction of Seismic Waves at Discontinuity Interfaces." See No. 3066 (6) of this list.

— TAKEMURA, T., and KINBARA, T., "Reports on the Siduoka Earthquake of July 11, 1935." See No. 3090 of this list.

— TURNER, EDWIN E., "Distance and Depth Finding" and "Means for Measuring Depths or Distances" (Patents). See Nos. 3109 (6) and (7) of this list.

— UDLUFT, H., HERRMANN, H., and STÖCKE, K., "Ground Pressure and Plate-statics Tests on the Elastic Properties of Coal-measure Rocks from Upper-Silesian Mines." See No. 3079 of this list.

— ULRICH, F. P., "California Strong-motion Program of the Coast and Geodetic Survey—a Special Report" (abstract). See No. 3050 (1) of this list.

An abstract of a paper with the title: "A Progress Report of the California Seismological Program of the Coast and Geodetic Survey," appears in *Earthquake Notes*, reported as No. 3050 (1) of this list.

3130. VAN DIJK, G., "Seismische Registreeringen te Heerlen, 1 Mai 1933—30 April 1934," *Jaar. Geol. Bur. Heerlen*, 1932, 47-48, Heerlen, 1934. R.Z.

— VARDANJANC (WARDANIANZ), L., "Seismotectonics of the Caucasus" (in Russian). See No. 3042 (1) of this list.

- VOIUTSKY, V. S., "Method of Measuring the Velocity of Propagation of Elastic Waves in Solid Mediums," and "Apparatus for Seismic Prospecting" (Patents). See No. 3109 (1) and (2) of this list.
- WENNER, F., and GEBHARDT, R. E., "Adjustment of the Damping of the Galitzin Seismometer and Galvanometer" (abstract). See No. 3050 (1) of this list.
3131. WILLIAMS, Neil, "Exploration for Oil out in the Gulf is within Engineering Possibilities," *Oil and Gas Jour.*, Vol. 34, No. 8, 42-45, Tulsa, 1935.
- An abstract by W. Ayvazoglou appears as No. 2719, p. 1558, of *Geophysical Abstracts*, reported as No. 3094 of this list. F.W.L.
- WILLIAMS, Robert Longfellow, "Method and Apparatus for Measuring Distances and Depths" (Patent). See No. 3109 (10) of this list.
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