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DEPARTMENT OF THE INTERIOR
CANADA

HON. THOMAS G. MURPHY, *Minister*

H. H. ROWATT, *Deputy Minister*

PUBLICATIONS

OF THE

Dominion Observatory

OTTAWA

R. MELDRUM STEWART, *Director*

Vol. X

Bibliography of Seismology

No. 8

OCTOBER, NOVEMBER, DECEMBER, 1930

BY

ERNEST A. HODGSON

OTTAWA
F. A. ACLAND
PRINTER TO THE KING'S MOST EXCELLENT MAJESTY
1931

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701. ANGENHEISTER, G., "Seismik (Erdbebenwellen)," *Handbuch der Physik*, 6, Chapter 8, 566-622, Berlin, 1928.

The *Handbuch der Physik* edited by H. Geiger and Karl Scheel, is published by Julius Springer, Berlin. Band 6 deals with the subject "Mechanik der elastischen Körper." The price for this Band is R.M. 56 (unbound) or R.M. 58.60 (bound). The complete *Handbuch* comprises 24 Bände.

Chapter 8 of Band 6 deals with the following:

- (1) Theory of seismological instruments.
- (2) The physical nature of earthquake waves.
- (3) The geometrical optics (geometrische Ausbreitung) of earthquake waves in the interior of the earth.
- (4) Observational data.

702. BODLE, R, R, et al., "Proceedings of the 1930 Meeting, Washington, D.C.," Special publication by the Eastern Section of the Seismological Society of America, 86 pages, 34 figures, 3 tables, Washington, 1930.

The publication was made possible by financial support from several sources. It reports the joint meeting of the Eastern Section of the Seismological Society of America and the Section of Seismology of the American Geophysical Union. It was compiled by the editor of the Eastern Section, Mr Ralph R. Bodle, who was assisted in the work by the other officers of the Section resident in Washington, the Secretary, Dr. N. H. Heck, and the Treasurer, Mr. H. E. McComb. Their labours have made available in a most complete and satisfactory form the reports of the officers of the Eastern Section for the year immediately preceding the annual meeting, and the business transacted at that meeting, together with the text of each of the various addresses and papers, and the discussions arising therefrom. Distribution is made through the office of the Secretary, at the U.S. Coast and Geodetic Survey, Washington, D.C.

703. BROWN, Charles W. and MARTEL, Raoul R., "Engineering Seismology in Japan," *Proceedings of the 1930 meeting of the Eastern Section of the Seismological Society of America*, held jointly with the Section of Seismology of the American Geophysical Union (see No. 702 of this list), 8-25, 24 illustrations, Washington, 1930.

The paper gives detailed information as to the reconstruction of the damaged sections of Japan after the great earthquake of September 1, 1923.

704. BURGESS, G. K., "Address of Welcome," *Proceedings of the 1930 meeting of the Eastern Section of the Seismological Society of America*, held jointly with the Section of Seismology of the American Geophysical Union (see No. 702 of this list), 7-8, Washington, 1930.

The opening session of the meeting was held at the U.S. Bureau of Standards. The Director of that organization, Dr. G. K. Burgess, in his address of welcome, pointed out the phases of the work under his direction which are in the field of geophysics.

705. BYERLY, Perry, "The California Earthquake of November 4, 1927," *Bulletin of the Seismological Society of America*, 20, No. 2, 53-66, 3 figures, Stanford, June, 1930.

706. CENTRAL METEOROLOGICAL OBSERVATORY, TOKYO, "List of the Seismological Stations in Japan," Special Publication of the Central Meteorological Observatory, 7 pages, Tokyo, 1930.

The list gives, for each station, the latitude and longitude and a list of the seismographs, together with the constants of each. The introduction gives a brief outline of the seismological work as a whole carried out by means of the various stations.

707. CERERO, D. Rafael, "Estudio sobre la resistencia y estabilidad de los edificios sometidos a huracanes y terremotos," Imprenta y Litografia de Deposito de la Guerra, 86 pages, Madrid, 1890. W.C.R.

708. CHAPMAN, S., "A Note on Two Apparent Large Temporary Local Magnetic Disturbances Possibly Connected with Earthquakes," *Terrestrial Magnetism and Atmospheric Electricity*, 35, No. 2, 81-83, Baltimore, June, 1930. R.R.B.

The author, working in the Imperial College of Science and Technology, London, England, discusses two cases of observed temporary magnetic deflections reported as having been due to earthquakes—one in the Gulf of Tokyo on August 3, 1926; the other south of Crete on April 22, 1928—which were brought to his attention by the late Prof. H. H. Turner. He concludes: "Our present ignorance of the cause of the Earth's main field and its secular change makes it difficult to exclude a possible connection between earthquakes and local temporary magnetic disturbances."

709. DALY, Reginald A., "Nature of Certain Discontinuities in the Earth," *Bulletin of the Seismological Society of America*, 20, No. 2, 41-52, 3 tables, Stanford, June, 1930.

The author's abstract reads: "Four different kinds of experimental evidence suggest that the seismically effective compressibility of a rock is of the order of one-fifth less than its compressibility as determined by the high-pressure method. Additional, specially designed experiments to test this idea are urgently needed. As it stands, the tentative conclusion implies that the crystalline Sial of a continental block is essentially granitic down to a depth not far from thirty kilometers. Below that shell a second shell of granodiorite or quartz diorite is indicated. At the depth of about forty-five kilometers is a major discontinuity, which, interpreted on the same basis, represents the interface between the second shell and crystalline basalt, or gabbro. According to Gutenberg's hypothesis, this third shell contacts with a fourth, underlying shell of vitreous basalt, the thickness of which is not now to be readily determined from the wave-velocities in depth. So far as seismological evidence goes, that thickness may possibly approach 1200 kilometers. A shell of either crystalline or vitreous peridotite near the earth's surface is not suggested by the wave-velocities. The master discontinuity at the depth of 2900 kilometers seems capable of at least two different explanations."

710. DAVIS, Watson, "Telling the Public about Earthquakes," *Proceedings of the 1930 Meeting of the Eastern Section of the Seismological Society of America*, held jointly with the Section of Seismology of the American Geophysical Union (see No. 702 of this list), 82-83, Washington, 1930.

Mr. Davis, as Managing Editor of Science Service, is closely connected with the work which the title of his paper indicates. Some aspects of that work are brought to the attention of seismologists in this paper.

711. DAY, Arthur L., "Progress in American Seismology," *Proceedings of the 1930 meeting of the Eastern Section of the Seismological Society of America*, held jointly with the Section of Seismology of the American Geophysical Union (see No. 702 of this list), 65-71, Washington, 1930.

In this paper Dr. Day presents an important historical sketch of the development of seismological research in the United States.

- DEWELL, Henry D., "Some remarks on the Shaking Table Investigations." See No. 724 of this list.
- DOXSEE, W. W. and HODGSON, Ernest A., "The Grand Banks Earthquake, November 18, 1929." See No. 723 of this list.
712. EPSTEIN, Paul S., "Reflection of Waves in an Inhomogeneous Absorbing Medium," *Proceedings of the National Academy of Sciences*, **16**, No. 10, 627-637, Washington, October, 1930.
713. EWING, J. A., "Earthquake Measurements," *Mémoires, University of Tokyo*, No. 9, 92 pages, Tokyo, 1883. W.C.R.
714. FERRAR, H. T., "Murchison Earthquake Investigations," *Bulletin of the Seismological Society of America*, **20**, No. 2, 92-94, 8 half-tone reproductions from photographs, Stanford, June, 1930.
715. FREEMAN, John R., "Engineering Data Needed on Earthquake Motion for Use in the Design of Earthquake-resisting Structures," *Bulletin of the Seismological Society of America*, **20**, No. 2, 67-87, Stanford, June, 1930, and also in the *Proceedings of the 1930 meeting of the Eastern Section of the Seismological Society of America*, held jointly with the Section of Seismology of the American Geophysical Union (see No. 702 of this list), 25-40, followed by pages 40-42 devoted to a report of the discussion of the above paper, Washington, 1930.
- Dr. Freeman presents in this paper a vivid outline of the problems and the possibilities of development in seismological research along the lines which will furnish engineers with data required in the design of earthquake-resisting structures in seismic areas. A recent visit to Japan afforded the author an opportunity to study the work of Japanese seismologists along these lines. He urges that steps be taken at once to hasten research development in engineering seismology.
716. GEODETIC INSTITUTE, COPENHAGEN, DENMARK, "The Seismological Stations of Copenhagen and Scoresby-Sund," Special Publication of the Geodetic Institute, 32 pages, 21 figures, 9 plates, Copenhagen, 1930.
717. GUTENBERG, B. and SCHLECHTWEG, H., "Viskosität und innere Reibung fester Körper," *Physikalische Zeitschrift*, **31**, Heft 16, 745-752, Leipzig, 1930.
718. HASEGAWA, M., "Die erste Bewegung bei einem Erdbeben," *Gerlands Beiträge zur Geophysik*, **27**, 102-125, Leipzig, 1930.
719. HECK, N. H., "Progress of Seismological Investigations in the United States, July 1, 1927, to January 1, 1930," U. S. Department of Commerce, Coast and Geodetic Survey, Special Publication No. 167, Washington, 1930.
- The author has succeeded in bringing together within the fourteen pages of this pamphlet a most complete outline of the important progress in seismological work accomplished during the period indicated.
720. HECK, N. H., "Earthquakes, a Challenge to Science," *Scientific Monthly*, **31**, 113-125 12 illustrations, New York, August, 1930. R.R.B.
721. HECK, N. H., "The Earthquake, a Joint Problem of the Seismologist and Engineer," *Proceedings of the 1930 meeting of the Eastern Section of the Seismological Society of America*, held jointly with the Section of Seismology of the American Geophysical Union (see No. 702 of this list), 42-46, Washington, 1930.

722. HOBBS, W. H., "The Cause of Earthquakes, Especially Those of Eastern United States," *Annals of the Smithsonian Institution for 1926*, 257-277, 5 figures, Washington, 1927.

An abstract appears in *Geologisches Zentralblatt*, 42, No. 6, 317-318, Berlin, September 15, 1930.

723. HODGSON, Ernest A. and DOXSEE, W. W., "The Grand Banks Earthquake, November 18, 1929," *Proceedings of the 1930 meeting of the Eastern Section of the Seismological Society of America*, held jointly with the Section of Seismology of the American Geophysical Union (see No. 702 of this list), 72-79, 3 figures, 2 tables, Washington, 1930.

The paper is followed, on pages 79-81, by an account of the discussion. Mr. Higgins of the Western Union Telegraph Company, contributed much valuable information with regard to the effect of the earthquake on the cables crossing the disturbed area.

724. HOOVER, Theodore J., et al., "Progress Report on Vibration Research at Stanford University," *Bulletin of the Seismological Society of America*, 20, No. 3, 113-236, Stanford, September, 1930.

The report includes the following papers:

"Vibration Research—Introduction," Theodore J. Hoover, 113-114.

"Dynamic Behavior of Models of Timber Walls," Lydik S. Jacobsen, 115-146, 7 tables, 15 figures.

"Experiments with a Shaking Machine," F. J. Rogers, 147-159, 1 table, 4 figures.

"Motion of a Soil Subjected to a Simple Harmonic Ground Vibration," Lydik S. Jacobsen, 160-195, 17 figures.

"An Approximate Solution of the Steady Forced Vibration of a System of One Degree of Freedom under the Influence of Various Types of Damping," Lydik S. Jacobsen, 196-223, 1 table, 11 figures.

"Discussions of the Paper on Forced Vibrations" (immediately preceding), by various members of the American Society of Mechanical Engineers, at the Detroit meeting of June 9, 1930, at which it was presented by Professor L. H. Donnell of the University of Michigan, 224-230.

"Some Remarks on the Shaking Table Investigations," Henry D. Dewell, 231-236.

The report covers the research to date in the field of vibrations, carried out in the School of Engineering, Department of Mechanical Engineering, Stanford University, with the aid of funds contributed by an anonymous donor, supplemented by a gift from the National Academy of Sciences. The actual work of the research and analysis of the results have been done by Professor Lydik S. Jacobsen. A consulting committee of six members has given advice from time to time.

725. IMAMURA, Akitune, "On the Chronic and Acute Earth-tiltings in the Southern Part of Sikoku," *Japanese Journal of Astronomy and Geophysics*, 8, No. 1, 29-37, 5 figures, Tokyo, 1930.

726. IMAMURA, Akitune, "The Status of Seismology in Japan," Report presented at the Fourth General Conference of the International Union of Geodesy and Geophysics, at Stockholm, 1930, 13 pages, Tokyo, 1930.

727. IMBÒ, Giuseppe, "Attività sismica durante la fase parossismale del 30 Novembre-1° Dicembre 1923," *Annali del Reale Osservatorio Vesuviano*, Third Series, 2, 11 pages in reprint, Naples, 1925.

728. IMBÒ, Giuseppe, "Osservazioni e ricerche in relazione all' eruzione etnea 2-20 Novembre 1928," *Bulletin Volcanologique (Organe de la Section de Volcanologie de l'Union géodésique et géophysique internationale)*, Nos. 15-18, Naples, 1928.
The publication consists of fifty-nine pages in the reprint, together with fourteen reproductions from photographs and one large folded map. On pages 31-47, the author presents an outline of the seismic activity accompanying the eruptions.
729. INGLADA ORS, Vicente, "Estudio de las erupciones volcanicas por medio de las sacudidas sismicas que producen," *Bulletin Volcanologique*, 1927, Nos. 13 and 14, 244-266, Naples, 1929.
An abstract appears in *Geologisches Zentralblatt*, 42, No. 6, 318-319, Berlin, September 15, 1930.
730. INOUE, W. and SUGIYAMA, T., "On Earth-tiltings observed at Mt. Tukuba" (in Japanese with a long abstract in English), *Bulletin of the Earthquake Research Institute, Tokyo Imperial University*, 8, Part 3, 346-363, 18 figures, September, 1930.
731. ISHIMOTO, Mishio, "Observations sur les variations de l'inclinaison de la surface terrestre (deuxième rapport). Résultats obtenus dans la région épicertrale du tremblement de terre de Sekihara," *Bulletin of the Earthquake Research Institute, Tokyo Imperial University*, 8, Part 2, 222-236, 3 figures, June, 1930. R.R.B.
732. ISIKAWA, T., "Über die anormale Erschütterungsgebiete der Erdbeben," *The Geophysical Magazine*, 3, No. 2, 95-100, 10 figures, Tokyo, August, 1930.
- JACOBSEN, Lydik S., "Dynamic Behavior of Models of Timber Walls,"
"Motion of a Soil Subjected to a Simple Harmonic Ground Vibration,"
"Steady Forced Vibration under the Influence of Damping." See No. 724 of this list.
733. JAPANESE MILITARY LAND SURVEY DEPARTMENT, "Precise Levellings in the Province of Idu," *Bulletin of the Earthquake Research Institute, Tokyo Imperial University*, 8, Part 3, 375-376, 2 figures, September, 1930.
734. JOLIAT, Joseph S., S.J., "A Table of Travel Times for Near Earthquakes," *Proceedings of the 1930 meeting of the Eastern Section of the Seismological Society of America*, held jointly with the Section of Seismology of the American Geophysical Union (see No. 702 of this list), 56-59, Washington, 1930.
The author briefly reviews the publication of such travel time data to the present and then outlines the work done at the Central Station of the Jesuit Seismological Association in studying the records of the Attica earthquake on the basis of Jeffreys' conception of the structure of the upper crust of the earth.
735. KATO, Y. and NAKAMURA, S., "On the Piezo-electric Accelerometer and Its Application to the Measurement of the Velocity of the Elastic Waves Produced by Artificial Disturbances," *Proceedings of the Imperial Academy*, 6, No. 7, 272-274, 3 figures, Tokyo, July, 1930.
The introductory paragraph reads: "The piezo-electric accelerometer was first introduced into seismometry by Prince B. Galitzin. O. Wood discussed the problem and designed a seismometer. He succeeded in recording the change in potential with an oscillographic galvanometer by adopting the resistance capacity amplification, but he

introduced a transformer in the output circuit to eliminate the large plate current through the galvanometer circuit. What is recorded by this circuit shows, however, the time rate of the change in acceleration instead of the acceleration itself which is desired. The writers improved this point and obtained very large magnification without any increase of difficulties in adjusting the instrument."

736. KEITH, Arthur, "The Grand Banks Earthquake," *Supplement to the Proceedings of the 1930 meeting of the Eastern Section of the Seismological Society of America*, held jointly with the Section of Seismology of the American Geophysical Union, 5 pages, 3 figures, Washington, 1930.

See No. 702 of this list for details of the publication as a whole, of which this is a supplement.

737. KISHINOUE, Fuyuhiko, "Meteorological and Seismological Observations of the Eruption of Komogatake, Hokkaido, in 1929," *Bulletin of the Earthquake Research Institute, Tokyo Imperial University*, 8, Part 2, 274-289, 5 figures, 2 tables, June, 1930.

The above paper is the third part of an extended publication on the Eruption of Komogatake in 1929. The other sections, all appearing in series in the same journal, are as follows:—

- Part 1: The Volcano Komogatake, Hokkaido, its Geology, Activity, and Petrography.....Hiromichi TSUYA
 Part 2: On the Temperature of the Pumiceous Ejecta of Komogatake, Hokkaido, as inferred from their Modes of oxidation.....Seitaro TSUBOI and Hiromichi TSUYA
 Part 3: Meteorological and Seismological Observations.....Fuyuhiko KISHINOUE
 Part 4: Observations of the Tilt of the Ground accompanying the Eruption.....Ryutarō TAKAHASHI
 Part 5: Precise Levellings around the Volcano.....Chuji TSUBOI
 Part 6: Observation with Gravity Variometer.....Chuji TSUBOI
 Part 7: Electrical Phenomena caused by the Eruption of Komogatake.....Kin'chi NAKATA
 Part 8: Observations on Komogatake.....Naomi MIYABE

738. KOHLSHÜTTER, E., "Jahresberichte des Direktors des Geodätischen Institutes für die Zeit von April 1927 bis März 1928 und von April 1928 bis März 1929," Publication of the Preussischen Geodätischen Institutes, Neue Folge, No. 103, 1-74, Potsdam, 1929.

The work in seismology is discussed on pages 33-36 and 68-71.

739. KRUMBACH, G. and SIEBERG, A., "Die wichtigeren Erdbeben des Jahres 1924 und ihre Bearbeitung," *Veröffentlichungen der Reichsanstalt für Erdbebenforschung in Jena*, Heft 11, 26 pages, Jena, 1930.

The introduction is written by Dr. O. Hecker, the Director of the Reichsanstalt für Erdbebenforschung in Jena.

740. KUMAGAI, N., "On the Shape and Size of Japan Arc," *Japanese Journal of Astronomy and Geophysics*, 8, No. 1, 1-28, Tokyo, 1930.

741. LAGRANGE, E., "Antonio Favaro, sismologue," *Ciel et Terre*, 45, Nos. 6-7, 192-195, Brussels, June-July, 1929.

742. LANE, Alfred C., "Are Batholiths Up-bulges of Sial?" *Science*, No. 1866, 72, 341. New York, October 3, 1930.

The author concludes that the evidence given by the grain exhibited by batholiths is contrary to the hypothesis that they are up-bulges of sial.

743. LEE, Frederick W., "Geophysical Abstracts," United States Bureau of Mines, No. 15 (Circular 6341), 25 pages, July; No. 16 (Circular 6355), 23 pages, August; No. 17 (Circular 6366), 29 pages, September; Washington, 1930.

The above numbers are part of a series, the first of which appeared in May, 1929. They are issued in mimeographed form by the U.S. Bureau of Mines, with the co-operation of thirty-one contributing editors. Many of the abstracts are of considerable length. Appearing monthly, this bibliography covers very efficiently the ever-growing field of geophysical prospecting.

744. LEET, L. Don., "Some Characteristics of Rayleigh-wave Records on Seismograms of Distant Earthquakes," *Proceedings of the 1930 meeting of the Eastern Section of the Seismological Society of America*, held jointly with the Section of Seismology of the American Geophysical Union (see No. 702 of this list), 60, Washington, 1930.

This paper is given in abstract only. The author presents the results of an investigation carried out by him at the Dominion Observatory, Ottawa, along the lines indicated by the title. The entire paper forms his Doctorate Thesis as presented to Harvard University. A summary, only, was given at the Washington meeting.

745. LEHMANN, I., "P' as read from the Records of the Earthquake of June 16th, 1929," *Gerlands Beiträge zur Geophysik*, 26, 402-412, Leipzig, 1929.

The author's English abstract reads as follows: "P' is read from a great number of records of the New Zealand earthquake of 16 VI 1929 and considered more particularly for distances from 160 to 170 degrees from the epicentre where 23 European records are available. In the said interval the phase is found to separate into two, the first of which is a little earlier but has approximately the same course as P' in the tables of Gutenberg and Macelwane. The times of the second part of the phase increase more with distance, the equation of the time-curve being $P'_2 - T_0 = 20^m46^s + (\Delta - 160) \times 4 \cdot 2^s$."

746. LEHMANN, I., "A Hammer for the Galitzin Vertical Component Pendulum," *Gerlands Beiträge zur Geophysik*, 26, 413-415, Leipzig, 1930.

747. LYNCH, Joseph S. J., "Earthquake Succession," *Proceedings of the 1930 meeting of the Eastern Section of the Seismological Society of America*, held jointly with the Section of Seismology of the American Geophysical Union (see No. 702 of this list), 72, Washington, 1930.

The following abstract alone appears in the Proceedings. The paper was given in detail at the meeting. Author's abstract: "Do earthquakes succeed one another in any definite direction? Is there any definite order in which they occur? The epicentres for about six years were plotted month by month, according to time of occurrence, on Mercator's projection. In most cases succeeding epicentres progressed from west to east. In some cases the progression was striking; but there were frequent cases of steady progression from east to west. The results as studied so far only warrant the conclusion that there is a slight tendency for succeeding epicentres to progress from west to east rather than vice versa."

748. MACELWANE, James B., S.J., "The Mississippi Valley Earthquake Problem," *Bulletin of the Seismological Society of America*, 20, No. 2, 95-98, Stanford, June, 1930.

The author sketches the seismic history of the region and outlines the organization now under way to permit of an extended study of the seismicity of the southeastern flank of the Ozark uplift—the so-called "New Madrid" region.

749. MARRISON, W. A., "The Crystal Clock," *Proceedings of the National Academy of Sciences*, 16, No. 7, 496-507, 10 figures, Washington, July, 1930.

The paper concludes with a bibliography of eight items on the subject of the development of the crystal clock.

- MARTEL, Raoul R. and BROWN, Charles W., "Engineering Seismology in Japan." See No. 703 of this list.
- MARTIN, H., "Das photographische Koinzidenzverfahren." See No. 752 of this list.
750. McADIE, Alexander, "A Serviceable Scale for Earthquake Intensity," *Proceedings of the 1930 meeting of the Eastern Section of the Seismological Society of America*, held jointly with the Section of Seismology of the American Geophysical Union (see No. 702 of this list), 54-56, Washington, 1930.
751. McCOMB H. E., "A Tilt-compensation Seismometer," *Proceedings of the 1930 meeting of the Eastern Section of the Seismological Society of America*, held jointly with the Section of Seismology of the American Geophysical Union (see No. 702 of this list), 60-63, 4 figures, Washington, 1930.
- The author here gives an outline of the modification which he has devised to make an old-type Bosch-Omori seismograph record photographically and to render it free from tilt effects. The modified instrument is in operation in Washington and has given several good records of earthquakes. The modifications are easily and cheaply effected and should make it possible to utilize to good advantage the Bosch-Omori seismographs which have been retired as obsolete. It makes possible the placing of such modified seismographs in outlying stations which would otherwise, for the present at least, be unable to finance the purchase of a modern seismograph and will permit such stations to carry out valuable work in the network of stations.
752. MEISSER, O. and MARTIN, H., "Erhöhung der Beobachtungsgenauigkeit bei relativen Pendelmessungen: I. Registrierung von Pendelschwingungen; II. Das photographische Koinzidenzverfahren," *Zeitschrift für Geophysik*, 5, Heft 3-4, Göttingen, 1929.
- The two sections were written by the respective authors. In connection with this same subject we may note the following paper by the second author: "Zum photographischen Koinzidenzverfahren," in the same journal, 5, Heft 7, 316-319, Göttingen, 1929. In concluding this last paper the author says: "In conclusion then it may be remarked that one may use swinging pendulums as described to measure the length of contacts or the relative time of two clocks with an accuracy of several ten-thousandths of a second."
753. MEISSER, O. and WOLF, F., "Geophysikalische Messungen unter Tage," *Zeitschrift für Geophysik*, 6, Heft 1, 13-21, Göttingen, 1930.
- The article, which was presented at the sessions of the Deutsche Geophysikalische Gesellschaft at Dresden, in 1929, concludes with the statement that, even though the investigations of underground conditions with the torsion balance have undoubted strength yet magnetic and seismic methods should be used to place the work on a sound geophysical basis. It is announced that a more detailed report will appear in the *Veröffentlichungen der Reichsanstalt für Erdbebenforschung in Jena*.
754. MERTIE, J. B., "Mountain Building in Alaska", *American Journal of Science*, Fifth Series, No. 116, 20, 101-124, New Haven, August, 1930.
755. MILDNER, P., "Die im Jahre 1928 in Leipzig aufgezeichneten Erdbeben," *Berichten der mathematisch-physischen Klasse der Sächsischen Akademie der Wissenschaften zu Leipzig*, 81, 239-266, 5 figures, 3 plates. Leipzig, 1929.
756. MILLER, William J., "The Geological History of New York State," New York State Museum, Bulletin No. 255, 148 pages, 52 plates, 38 figures, map, Albany, 1924.
- The above Bulletin may be obtained, at a price of 75 cents, from the Visual Instruction Division, State Education Department, Albany, N.Y.

757. MONTEL, A., "Le case nelle regioni sismiche e la scienza," S. Lattes and C., 116 pages, Turin, 1910. W.C.R.
- NAKAMURA, S and KATO, Y., "On the Piezo-electric Accelerometer and Its Application to the Measurement of the Velocity of Elastic Waves Produced by Artificial Disturbances." See No. 735 of this list.
758. NATIONAL RESEARCH COUNCIL OF JAPAN, "Reports Presented by the National Committee for Geodesy and Geophysics, at the International Union of Geodesy and Geophysics, Fourth General Conference, Stockholm, 1930," Special Publication of the National Research Council of Japan, Tokyo, 1930.
- The following reports are included:
- (1) "Geodetic Survey in Japan during 1927-1929," by Rikuti SOKURYOBU, 2 pages, 6 plates.
 - (2) "Re-survey of the Kwanto District after the Great Earthquake of 1923," by Rikuti SOKURYOBU, 80 pages, 7 plates.
 - (3) "Re-survey of the Tango District after the Earthquake of 1927," by Rikuti SOKURYOBU, 18 pages, 10 plates.
 - (4) "Report upon the Provisional Result of the Work of the International Latitude Service in the North Parallel + 39° 8' during the Period 1927.14-1930.05," by Hisashi KIMURA, 7 pages, 1 figure.
759. NATURE, "Prof. H. H. Turner, F.R.S." (an obituary), *Nature*, No. 3174, 126, 318-319 London, August 30, 1930.
760. NAUMANN, Edmund, "Über Erdbeben und Vulcanausbrüche in Japan," *Mitteilungen der Deutschen Gesellschaft für Natur- und Volkerunde Ostasiens*, Heft 15, 163-215, Yokohama, August, 1878. W.C.R.
761. NAVARRO, NEUMANN, M. Ma., S.J., "Notas sismológicas (1929)," *Ibérica*, Núm. 842, 17, 138-142, Barcelona, September, 1930. N.N.
762. NEGRI, Galdino, "Nueva Tabla Sismica," Special Publication of the Dirección de Meteorología, Ministerio de Agricultura de la Nación, República Argentina, 8 pages, Buenos Aires, 1929.
763. NENNSTIEL, Fritz, "Entstehung und Ausbreitung Deutscher Erdbeben in ihrer Abhängigkeit von den geologischen Verhältnissen," *Veröffentlichungen der Reichsanstalt für Erdbebenforschung in Jena*, Heft 12, 1-43, 8 figures, Jena, 1930.
- The table of contents serves to show the important nature of this contribution to the literature of seismology:
- Part I: Monographs on several earthquakes:
- (1) The Südschwarzwald earthquake, January 22, 1896.
 - (2) The West Germany earthquake, August 26, 1878.
 - (3) The first Herzogenrather earthquake, October 22, 1873.
 - (4) The second Herzogenrather earthquake, June 24, 1877.
 - (5) The earthquake in Hohen Venn, January 14, 1928.
 - (6) The Mittelschlesische earthquake, June 11, 1895.
- Part II: The established earthquake hearths as points of geological movement:
- (1) The hearth of the Bonndorfer graben.
 - (2) The hearth of the Rur-Erft-Schollen.
 - (3) The hearth of the Feldbiss.
 - (4) The hearth in Hohen Venn.
 - (5) Conclusions as to the earthquake hearth at Niederrheim.
 - (6) The seismic "trellis" of Niederrheim.
 - (7) The hearth in Sudetenvorland.

Part III: The relation between the intensity of the earthquakes and the geological conditions:

- (1) The nature of the soil and the apparent intensity of the earthquake
 - (a) water-saturated land
 - (b) dry, firm soil
 - (c) consolidated rock.
- (2) Tectonics and apparent earthquake intensity
 - (a) the influence of faulting
 - (b) the influence of "Bruchstörungen."

A lengthy bibliography completes the publication.

764. NEVILS, W. Coleman, S.J., "Address of Welcome," *Proceedings of the 1930 meeting of the Eastern Section of the Seismological Society of America*, held jointly with the Section of Seismology of the American Geophysical Union (see No. 702 of this list), 65, Washington, 1930.

The sessions of the second day of the meeting were held in Georgetown University. President Nevils, in his address of welcome, spoke of the work of the late Father Tondorf, whose death occurred since the 1929 meeting of the Eastern Section. (The action of the joint meeting with regard to an expression of their deep sense of loss in the death of Father Tondorf appears in the second Resolution recorded on page 6 of the Proceedings.) The need of close co-operation in seismological work was emphasized and the readiness of Georgetown University to take part in such co-operative work was made apparent.

765. NIKIFOROFF, P., "Plan quinquennal des travaux de recherche scientifique de l'Institut Séismologique de l'Académie des Sciences de l'URSS," Special Publication of Académie des Sciences de l'Union des Républiques Soviétiques Socialistes, 27 pages, 10 plates, 1 map, Leningrad, 1930.

766. NISHIMURA, G., "The Effect of Temperature Distribution on the Deformation of a Semi-infinite Elastic Body," *Bulletin of the Earthquake Research Institute, Tokyo Imperial University*, 8, Part 2, 91-142, 20 figures, June, 1930. R.R.B.

- NISHIMURA, G. and SEZAWA, K., "Dispersion of a Shock in Echoing- and Dispersive-elastic Bodies." See No. 785 of this list.

767. ODDONE, E., "Influence des hautes températures sur les vitesses de propagation des ondes séismiques," *Bulletin Volcanologique*, Nos. 13 and 14, 306-315, Issue for 1927, Naples, 1929.

An abstract appears in *Geologisches Zentralblatt*, 42, No. 6, 318, Berlin, September 15, 1930.

768. ODDONE, E., "Sur quelques particularités dans l'enregistrement d'un pendule horizontal atteint par les ondes explosives," Special Publication of the National Committee of Geodesy and Geophysics, Section of Seismology, for Italy. Presented at the Fourth General Conference of the International Union of Geodesy and Geophysics at Stockholm in 1930. 7 pages, 4 figures, Rome, 1930.

769. ODDONE, E., "Sur les cartes séismiques mondiales," Special Publication, Comitato Nazionale Geodetico e Geofisico, Sezione di Sismologia (Italy), 1-2, Padova, 1930.

770. ODDONE, E., "Les mesures orthométriques et géodynamiques dans les travaux de sismologie," Special publication, Comitato Nazionale Geodetico e Geofisico, Sezione di Sismologia (Italy), 1-2, Padova, 1930.

771. PALMIERI, Louis, "Sismographes électro-magnétiques," Imprimerie à S. Giovanni magg. Pignatelli, 12 pages, 4 figures, Naples, 1878.

This little booklet, published nearly sixty years ago, describes a seismograph in which the recorder and the seismograph proper were at different positions, connected by wires. The seismograph consisted of three components—two simple pendulums, one inverted, the other direct—and a vertical pendulum of simple type. When the earthquake occurred the movements caused some or all the components to be disturbed. The disturbance caused contacts to be made at mercury cups. The circuits so closed operated the corresponding magnets at the recorder making a series of dots on a moving strip of paper. A fourth magnet provided means of recording time as supplied by a separate clock.

772. PATTON, R. S., "Co-ordination of Seismological Investigation in the United States," *Proceedings of the 1930 meeting of the Eastern Section of the Seismological Society of America*, held jointly with the Section of Seismology of the American Geophysical Union (see No. 702 of this list), 51-54, Washington, 1930.

As Director of the U.S. Coast and Geodetic Survey, the author is closely in touch with the seismological work in the United States, the activities of the government in that direction being one of the branches of the work of the Survey. The paper is a clear analysis of the present situation and offers suggestions for continued work along closely co-ordinated lines.

773. PITTMAN, C. VAN A., "Buying Earthquakes," *The Dupont Magazine*, 24, No. 7, at page 1, Wilmington, July, 1930; and also in the *Oil and Gas Journal*, 29, No. 10, 129, Tulsa, July 24, 1930.

R.R.B.

An abstract by W. Ayvazoglou appears in *Geophysical Abstracts* No. 17 (see No. 743 of this list), at page 11.

F.W.L.

774. RANKINE, A. O., "Seismic Methods," *Transactions of the Institute of Mining and Metallurgy*, 38, 309-322, London, 1929.

A lengthy abstract by W. Ayvazoglou appears in *Geophysical Abstracts* No. 15 (see No. 743 of this list), at pages 8-10.

F.W.L.

775. REID, Harry Fielding, et al., "The Publication of Earthquake Data," *Proceedings of the 1930 meeting of the Eastern Section of the Seismological Society of America*, held jointly with the Section of Seismology of the American Geophysical Union (see No. 702 of this list), 63-86, Washington, 1930.

For some time seismologists have felt that the monthly bulletins were taking up more time than their proper use could warrant. It was felt that steps should be taken to reduce the published data. At this meeting a symposium was arranged to deal with the matter. Dr. Reid was the leader of this symposium.

A committee was appointed to discuss the question. The members of this committee are: Heck (Chairman), Reid, Joliat, Hodgson, and Sohn. The preliminary conclusions of the committee are given on account of the importance of the subject. They read as follows:

(1) Agreed that complete publication by printing of instrumental seismic data by yearly or other terms be discontinued. That further publication of this material be by monthly mimeographed bulletins issued as soon as practicable.

(2) Instrumental constants shall follow a specified form for each type of instrument.

(3) Long-wave portion of record to be handled by descriptive terms.

(4) Time of the earthquake. Method of indicating this is still being worked out. There is some difference of opinion.

(5) Arrangement. Hereafter for any central station grouping shall be by earthquakes rather than stations. Records for each station shall appear in alphabetical order.

(6) For preliminary portion of record, give times of all phases which can be distinguished.

(7) Giving of periods and amplitudes, as well as description of microseisms, are subjects for further study as there is considerable difference of opinion.

(8) It was agreed that each organization should be free to experiment during the remainder of 1930, in order that by next year a universal plan may be proposed for adoption.

776. REPETTI, W. C., S.J., "New Values for Some of the Discontinuities in the Earth," Government of the Philippine Islands, Weather Bureau, Manila Central Observatory, Seismological Bulletin for 1929, July-December, 75-89, 6 plates, Manila, 1930.

The paper is divided into the following sections: Historical summary; Core and discontinuity surfaces; Calculations; Discussion; Seismographic Evidence; Conclusion; Summary; Bibliography.

The author's summary reads: "Elastic waves produced by an earthquake afford a means of investigating regions of the interior of the earth which are inaccessible by other means, and some of their characteristics are mentioned. Calculations are then carried through to ascertain the depths of the discontinuities and the velocity of the longitudinal elastic waves at various depths. The resulting curves are shown. Some of the values of depths previously obtained are confirmed and some new values revealed, in particular, one at a depth of 970 km.

"The travel times for waves reflected from a discontinuity at 970 km. are calculated and the travel time curve drawn. A summary of the seismographical data used to verify the existence of such waves is given. The seismograms are reproduced and an explanation of them is appended. The bibliography is given at the end of the investigation."

The above paper is the author's Doctorate Dissertation as presented to the Faculty of the Graduate School of Saint Louis University.

777. REPETTI, W. C., S.J., "Installation of New Seismographs at the Manila Observatory," *Proceedings of the 1930 meeting of the Eastern Section of the Seismological Society of America*, held jointly with the Section of Seismology of the American Geophysical Union (see No. 702 of this list), 63-65, Washington, 1930.

— ROGERS, F. J., "Experiments with a Shaking Machine." See No. 724 of this list.

778. ROTHÉ, E., "Méthodes de prospection du sous-sol," Gauthier-Villars, 392 pages, 156 figures. Price 75 francs. Paris, 1930.

Part III is devoted to the seismic method, the chapter headings for this part being as follows:

Chapter VI. Methods and instruments, manipulation.

Chapter VII. Experience and interpretation.

F.W.L.

779. ROTHÉ, E., "Rapport de la Section de Séismologie," *Compte rendu, Comité National Français de Géodésie et Géophysique*, Assemblée générale du 7 Avril 1930, Annexe 2, 14-21, Paris, 1930.

780. ROTHÉ, E., et al., "Annuaire de l'Institut de Physique du Globe, 1927, Deuxième Partie—Séismologie," Special publication of the University of Strasbourg, Faculty of Sciences, 130 pages, Strasbourg, 1928.

The report presents the following information:

1. An introduction in summary form.
2. List of the French seismological stations, their equipment and their personnel.
3. Tabulation of earthquakes registered.
4. Tabulation of microseismic movements registered.
5. Reports of earthquakes felt in France or her colonies.
6. An obituary of Prof. A. Simon (1868-1928).

781. ROY, Louis, "La propagation des ondes sur les surfaces élastiques isotropes à trois paramètres," *Comptes rendus*, 190, No. 25, 1475-1477, Paris, 1930.

782. ROY, Louis, "La loi adiabatique dynamique relative aux surfaces élastiques," *Comptes rendus*, 191, No. 1, 12-14, Paris, 1930.
783. SAHLSTRÖM, K. E., "A Seismological Map of Northern Europe," *Sveriges Geologiska Undersökning*, Series C, No. 364, 8 pages and map in reprint. Price 0.50 kr. Stockholm, 1930.
- SATO, K. and SUYEHIRO, K., "On a Dynamical Model for Investigating the Collapse of Wooden Houses in an Earthquake." See No. 789 of this list.
- SCHLECHTWEIG, H. and GUTENBERG, B., "Viskosität und innere Reibung fester Körper." See No. 717 of this list.
784. SCIENCE NEWS-LETTER, "Strange Radiation of Sun Causes Weather and Earthquakes Says New Theory," *Science News-Letter* No. 492, 18, 163-164, Washington, September 13, 1930.
The article describes the hypothesis presented by Dr. Benjamin Boss, Director of the Dudley Observatory, Albany, N.Y., at a recent meeting of the American Astronomical Society in Chicago.
785. SEZAWA, K. and NISHIMURA, G., "Dispersion of a Shock in Echoing- and Dispersive-elastic Bodies," *Bulletin of the Earthquake Research Institute, Tokyo Imperial University*, 8, Part 3, 321-337, 11 figures, September, 1930. R.R.B.
786. SIEBERG, A., "Ein Beitrag zur Statik der Erdbeben," *Praktika de l'Académie d'Athènes*, 4, from page 149 (13 pages in the reprint), Athens, 1929.
The author discusses the effect on earthquake intensity of the geological structure and its physical conditions. He outlines the effect of faults and throws. A short outline of his opinion on earthquake-proof construction and on the possibility of avoiding, to some extent, the destruction caused by earthquakes concludes the paper. A bibliography of eighteen items is appended.
- SIEBERG, A. and KRUMBACH, G., "Die wichtigeren Erdbeben des Jahres 1924 und ihre Bearbeitung." See No. 739 of this list.
- SOKURYOBU, Rikuti, "Geodetic Survey in Japan during 1927-1929."
"Re-survey of the Kwanto District after the Great Earthquake of 1923."
"Re-survey of the Tango District after the Earthquake of 1927." See No. 758 of this list.
787. SPEIGHT, R., "The Buller Earthquake," *Bulletin of the Seismological Society of America*, 20, No. 2, 88-91, Stanford, June, 1930.
788. STONELEY, R., "The Effect of Variation of Density on the Propagation of Surface Waves on an Elastic Solid," *Proceedings of the Leeds Philosophical Society*, 2, Part 3, 103-110, Leeds, July, 1930.
The author's summary reads: "The present paper is a discussion of the influence on the velocity of Love waves of a linear increase of density with depth, the rigidity remaining constant. Guidance is given by the phenomenon of total internal reflection, which presents an analogy to the problem here treated."
"Two distributions are discussed. For a solid of constant rigidity in which the density increases linearly with the depth, no wave of the Love type can exist. For a

layer of such material lying on uniform material in which the velocity of distortional waves is greater than in any part of the layer, wave-velocity equations are obtained to cover the three cases that arise. These are discussed for very long waves and for very short waves. For these two limiting cases it is shown that waves can exist only if the velocity of the Love wave is greater than the velocity of distortional waves at any point in the layer."

— SUGIYAMA, T. and INOUE, W., "On Earth-tiltings observed at Mt. Tukuba." See No. 730 of this list.

789. SUYEHURO, K. and SATO, K., "On a Dynamical Model for Investigating the Collapse of Wooden Houses in an Earthquake," *Proceedings of the Imperial Academy*, 6, No. 7, 289-292, 5 figures, Tokyo, July, 1930.

Making use of a structural material composed of paraffin wax, stearine, and beeswax in proportions designed to yield models "satisfying the law of similitude" for actual structures, it was found that the model of a two-storeyed house indicated that the house so represented would withstand the shocks of an earthquake as great as that of Kwanto (1923), in which, according to Prof. Imamura, the maximum oscillation at the seismograph station at Tokyo was 8.9 cm. (full amplitude) with a period of 1.35 seconds. The model indicated that collapse would be complete for an earthquake with an acceleration (horizontal) of about 0.2 g. The authors propose to check their findings by means of an experiment with a larger model, made of wood but also designed to satisfy the law of similitude.

— SUZUKI, T. and TAKAYAMA, T., "On the Relation between the Sunspot Number and the Destructive Earthquakes in Japan." See No. 791 of this list.

790. TAKAHASHI, R., "Preliminary Report on the Observation of the Tilting of the Earth's Crust with a Pair of Water Pipes," *Bulletin of the Earthquake Research Institute, Tokyo Imperial University*, 8, Part 2, 143-152, 7 figures, June, 1930.

791. TAKAYAMA, T. and SUZUKI, T., "On the Relation between the Sunspot Number and the Destructive Earthquakes in Japan" (in Japanese with a lengthy abstract in English), *Bulletin of the Earthquake Research Institute, Tokyo Imperial University*, 8, Part 3, 364-374, September, 1930.

792. TAMS, E., "Die Seismizität des Südantillenbogens," *Zeitschrift für Geophysik*, 6, Heft 4-7, 361-369, Göttingen, 1930.

793. THOMSON, A., "Abnormal Audibility of Sound at Murchison Earthquake and Tarawere Eruption," *New Zealand Journal of Science and Technology*, 12, No. 1, 16, Wellington, June, 1930. R.R.B.

794. TSUBOI, Chuji, "Investigation on the Deformation of the Earth's Crust in the Tango District connected with the Tango Earthquake of 1927 (Part 1)," *Bulletin of the Earthquake Research Institute, Tokyo Imperial University*, 8, Part 2, 153-221, 38 figures, June, 1930. R.R.B.

795. TSUBOI, Chuji, "Investigation on the Deformation of the Earth's Crust in the Tango District connected with the Tango Earthquake of 1927 (Part 2)," *Bulletin of the Earthquake Research Institute, Tokyo Imperial University*, 8, Part 3, 338-345, 6 figures, September, 1930.

796. TURNER, H. H., "The International Seismological Summary for January, February, March, 1927," 1-107, Oxford, 1930.

Besides a discussion of the epicentres of the earthquakes registered during the first quarter of 1927, the paper gives a summary of the deep foci as determined by the Oxford analyses for the entire period covered by them up to the year 1927, a total of 114. A map indicating the location of these is given.

797. WASHINGTON, Henry S., "The Petrology of Saint Paul's Rocks (Atlantic)," *Papers from the Geophysical Laboratory, Carnegie Institution of Washington*, No. 702. (Reprinted from the report on the geological collections made during the voyage of the "Quest," on the Shkelton-Rowett Expedition, 1921-2, published by the Trustees of the British Museum, 1930), 19 pages, Washington, 1930. R.R.B.

The high seismicity of the region around Saint Paul's Rocks is mentioned as evidence of the unstable condition of the floor of the Atlantic ocean in that vicinity. Rudolph's map of the seismic zone of Saint Paul's Rocks is reproduced from *Gerlands Beiträge zur Geophysik*, 1, plate 7, Carton 1, Leipzig, 1887. S.T.

798. WASHINGTON, Henry S., "The Origin of the Mid-Atlantic Ridge," *Journal of the Maryland Academy of Science*, 1, No. 1, 20-29, Baltimore, 1930.

A short review appears in *The Geological Magazine*, No. 795, 67, 430-431, London, September, 1930.

799. WENNER, Frank, "A Proposed Accelerometer for Use in a Seismic Region," *Proceedings of the 1930 meeting of the Eastern Section of the Seismological Society of America*, held jointly with the Section of Seismology of the American Geophysical Union (see No. 702 of this list), 46-51, 3 figures, Washington, 1930.

800. WOOTTON, Thomas Peltier, "Geologic Literature of New Mexico," New Mexico School of Mines, State Bureau of Mines and Mineral Resources, Bulletin No. 5, 1-127, Socorro, N.M., 1930.

The publication is divided into three sections, an Introduction, Part I (Bibliography), and Part II (Index). The Introduction presents the plan and scope of the bibliography, outlines the abbreviations used and states how the various publications may be obtained—a most useful part of the compilation. The Bibliography is arranged in alphabetical order by authors. The Index groups the items of the Bibliography in the following subject groups: Areas described; Bibliography; Borings; Correlation; Dams and reservoir sites; Economic geology; Geologic formations described; Geologic formations, tables and sections; Geologic maps; Historical geology; Maps, general; Mineralogy; Palæontology; Petrology; Physical geology; Physiographic geology; Structural geology; Topographic maps; Underground water. The Index condenses the subject of the item to a word or two, indicating the location in the Bibliography by the name of the author, and a number where there are several items by a single author. The Bulletin may be obtained at the nominal price of 25 cents by addressing the State Bureau of Mines and Mineral Resources, Socorro, N.M., E. H. Wells, President and Director.

LIST OF COLLABORATORS

The items for this issue of the Bibliography were compiled while the editor was stationed at the Geophysical Laboratory of Saint Louis University. The compilation was made possible through the kindness of Rev. James B. Macelwane, S.J., Dean of the Graduate School, who arranged that all incoming scientific journals containing articles on seismology or allied subjects should pass through the hands of the editor. Although none of the listed items are marked with Dr. Macelwane's initials, his co-operation in the work of the entire issue is hereby gratefully acknowledged.

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

Bodle, Ralph R., United States Coast and Geodetic Survey, Washington, D.C., U.S.A.	R.R.B.
Lee, Frederick W., Editor, "Geophysical Abstracts," United States Bureau of Mines, Washington, D.C., U.S.A.	F.W.L.
Navarro Neumann, M. Ma. S., S.J., Cartuja, Granada, Spain.	N.N.
Repetti, W. C., S.J., Manila Central Observatory, Weather Bureau, Manila, Philippine Islands.	W.C.R.
Taber, Stephen. University of South Carolina, Columbia, S.C., U.S.A.	S.T.

SUBJECT INDEX FOR THE YEAR 1930

The following subject index for the items listed in the *Bibliography of Seismology* for the year 1930 has been prepared in the same form as that for the items listed in 1929 (see pages 62-65, Vol. X, No. 4 of these *Publications*) and may be considered a continuation of that index.

- A1. Aids to Seismological Study: Nos. 419, 449, 477, 521, 691.
See also M1. (Maps.)
- B1. Building Construction: Nos. 417, 458, 461, 472, 475 (3), 475 (4), 475 (5), 475 (7), 475 (8), 475 (14), 475 (15), 475 (16), 475 (17), 475 (19), 485, 615, 703, 707, 786, 789.
- B2. Bibliographies: Nos. 443, 444, 446, 457, 549, 633, 637, 667 (23), 678, 691, 743, 786, 800.
- C1. Catalogues of Earthquakes, Lists of Aftershocks, etc.: Nos. 402, 475 (2), 475 (18), 562, 595, 599, 626, 692, 739.
See also R2. (Reports.)
- C2. Causes of Earthquakes: Nos. 543, 576, 578, 583, 624, 650, 722, 784.
See also R3. (Rotation Variation.)
- C3. Cosmogony; Theoretical Discussions of Similar Nature; Continental Drift, etc.: Nos. 425, 432, 509, 527, 538, 618, 636, 642, 696, 798.
- C4. Cycles, Earthquake: Nos. 416, 420, 511, 595, 599, 747, 791.
See also P5. (Prediction).
- D1. Dams and Earthquakes: No. 463.
See also E2. (Engineering).
- D2. Deformations, Gradual, of the Earth's Crust: Nos. 412, 431, 438, 491, 534, 535, 537, 581, 628, 629, 636, 639, 647, 648, 657, 725, 730, 731, 790, 794, 795.
- D3. Descriptions, General, of Earthquakes in Canada or the United States: Nos. 523, 571, 667 (1), 667 (2), 667 (4), 667 (5), 667 (7), 667 (9), 667 (16), 667 (25), 705, 723, 736.
- D4. Descriptions, General, of Earthquakes other than those in Canada or the United States: Nos. 409, 410, 414, 423, 430, 447, 461, 475 (1), 483, 501, 513, 517, 520, 536, 552, 562, 563, 564, 594, 625, 630, 650, 667 (10), 667 (11), 667 (12), 667 (13), 667 (14), 667 (15), 681, 685, 686, 687, 699, 714, 727, 763, 787.

- E1. Effects of Earthquakes, on Buildings, Ground, etc.; Observed during or after the Disturbance: Nos. 423, 447, 474, 576, 627, 650, 667 (2), 667 (3), 667 (8), 667 (17), 667 (28), 667 (29), 670, 671, 682, 683, 684, 708, 718, 721, 732, 794, 795.
- E1.1. Earthquake Sounds: Nos. 596, 672, 793.
- E2. Engineering; Particular Applications to Seismology or of Seismology: Nos. 426, 434, 659, 693, 703, 715, 720.
See also B1. (Building Construction) and D1. (Dams).
- E3. Explosions, Studies of Wave Propagation from: Nos. 413, 497, 768.
See also S3. (Seismic Prospecting).
- F1. Foci, Depth of Earthquake: Nos. 427, 450, 495, 532.
- G1. Geodesy and Surveying applied to Seismology: Nos. 401, 404, 437, 439, 465, 491, 534, 607, 663, 669, 671, 674, 679, 680, 733.
- G2. Geography of Seismological Interest: No. 496.
- G3. Geology of Interest to Seismologists: Nos. 467, 475 (9), 475 (10), 475 (11), 475 (12), 475 (13), 488, 491, 517, 520, 523, 529, 532, 533, 597, 598, 600, 604, 609, 617, 628, 629, 634, 667 (6), 667 (12), 667 (13), 667 (14), 667 (15), 667 (19), 667 (20), 667 (21), 667 (22), 667 (24), 667 (26), 667 (27), 697, 699, 740, 742, 754, 756, 763, 786, 797, 798.
See also M1. (Maps).
- G3.1. Geology, Experimental; Geodynamics: Nos. 424, 635.
- H1. Historical Studies of Seismological Interest: Nos. 402, 419, 441, 475 (2), 595, 599, 600, 626, 692.
- I1. Instruments; Seismographs and Accessories: Nos. 408 (1), 438, 446, 455, 460, 478, 487, 500, 514, 526, 547, 554, 555, 572, 574, 619, 640, 652, 662, 735, 746, 749, 751, 752, 768, 771, 790, 799.
- I2. Insurance and Earthquakes: Nos. 474, 515, 558.
See also B1. (Building Construction) and E2. (Engineering).
- I3. Isostasy and Gravity; Papers of Interest to Seismologists: Nos. 508, 583.
- L1. Landslides, Mudflows, etc.: Nos. 475 (19), 560.
- M1. Maps, Geological and Seismological: Nos. 498, 650, 769, 783.
See also G3. (Geology).
- M2. Materials of the Earth's Crust, Laboratory Tests of: Nos. 510, 601, 608.
- M3. Mathematical Physics; as Applied to Seismological Problems: Nos. 407, 415, 424, 440, 453, 466, 475 (20), 479, 480, 481, 482, 486, 493 (1), 493 (2), 493 (3), 494, 516, 530, 559, 579, 582, 585, 586, 587, 588, 589, 590, 591, 605, 610, 611, 616, 651, 653, 654, 656, 660, 661, 678, 712, 766, 770, 781, 782, 785, 788.
- M4. Microseisms: Nos. 522, 631, 658.
- O1. Obituaries: Nos. 644 (1), 644 (2), 695, 741, 759, 780.
- O2. Oceanography; Charting, etc.: Nos. 404, 412, 499, 542, 544, 682, 700.
- O3. Organizations for Seismological Investigations: Nos. 435, 452, 468, 473 (1), 473 (3), 507, 514, 519, 539, 584, 613, 614, 643 (1), 643 (2), 655, 673, 675, 698, 702, 704, 706, 710, 711, 716, 719, 726, 738, 758, 764, 765, 772, 775, 777, 779, 780.
- O4. Origins of Earthquakes; Methods of Locating Epicentres and Results of That Work: Nos. 408 (2), 462, 469, 475 (6), 532, 556, 646, 692, 732.
- P1. Pacific, Problems of: Nos. 404, 462, 544, 621.
See also V2. (Volcanoes).
- P2. Physics, Experimental, As Applied to Seismological Problems: No. 649.
- P3. Physics of the Earth; Density, Viscosity, Rigidity, Elasticity, Temperature, etc.: Nos. 428, 440, 442, 445, 451, 540, 541, 557, 570, 620, 621, 622, 665, 668, 709, 717, 742, 767, 776.
See also M3. (Mathematical Physics).

- P4. Popular Presentations of Various Phases of Seismology: Nos. 484, 505, 531, 690, 710, 720, 721, 784.
- P5. Prediction of Earthquakes: Nos. 438, 465, 534, 535, 537, 602, 603, 725, 730, 731.
See also C4. (Cycles).
- R1. Records, Evaluation of Earthquake: Nos. 477, 489, 546, 553, 577, 713, 718.
See also T4. (Time-Distance Curves) and W1. (Wave Study).
- R2. Reports, Seismological; Regular Series: Nos. 410, 450, 470, 492 (1), 492 (2), 492 (3), 505, 566, 606 (1), 606 (2), 632, 638, 676, 689, 739, 755, 761, 780, 796.
See also C1. (Catalogues).
- R2.1. Reviews of Various Phases of Seismology: Nos. 452, 531, 748.
- R3. Rotation Period of the Earth, Variations Therein; Wandering of the Pole; Variation of Latitude: Nos. 578, 653, 665, 666, 677.
- S1. Scales, Earthquake: No. 750.
- S2. Seismicity of Particular Regions: Nos. 421, 475 (2), 475 (13), 543, 592, 613, 688, 692, 757, 792.
See also C1. (Catalogues), D3. and D4. (Descriptions of Particular Earthquakes), M1. (Maps), O4. (Origins), and R2. (Reports).
- S3. Seismic Prospecting: Nos. 403, 405, 406, 411, 413, 418, 422 (1), 422 (2), 441, 443, 444, 446, 448, 454, 455, 456, 457, 464, 471, 476, 497, 502, 503, 516, 518, 528, 548, 549, 551, 561, 567, 573, 575, 582, 593, 633, 637, 662, 664, 743, 752, 753, 768, 773, 774, 778.
See also E3. (Explosions).
- T1. Textbooks; General Treatises on Seismology or Its Applications: Nos. 429, 506, 565, 701.
- T2. Tidal Loading; Its Effects; Sea-level Pressure Changes, etc.: Nos. 412, 499, 700.
- T3. Tides, Earth: Nos. 442, 612.
- T4. Time-Distance Curves, Tables, etc.: Nos. 512, 524, 545, 550, 734, 745, 762.
- V1. Vibrations of the Ground, Buildings, etc., Caused by Non-seismic Disturbances Other Than Explosions; as Traffic, Machinery, Falling Weights, Meteors, Frost: Nos. 438, 446, 502, 573, 641, 694, 724.
- V2. Volcanoes in Relation to Earthquakes: Nos. 433, 490, 580, 728, 729, 737, 760.
See also P1. (Pacific Problems).
- W1. Waves, Studies of Earthquake; Based on Observational Data; Velocity, Paths, Nature, etc.: Nos. 407, 415, 430, 436, 451, 453, 459, 473 (2), 487, 489, 504, 553, 557, 568, 569, 610, 611, 623, 631, 645, 718, 744, 745, 767.
See also E3. (Explosions), F1. (Foci), M3. (Mathematical Physics), O4. (Origins), R1. (Records), S3. (Seismic Prospecting), T1. (Texts), T4. (Time-Distance Curves), and V1. (Vibrations).

