DEPARTMENT OF MINES AND RESOURCES CANADA

SURVEYS AND ENGINEERING BRANCH

PUBLICATIONS

OF THE

Dominion Observatory

OTTAWA

VOL. XIII

Bibliography of Seismology

No. 5

Items 4716-4769

JANUARY, FEBRUARY, MARCH, 1940

BY

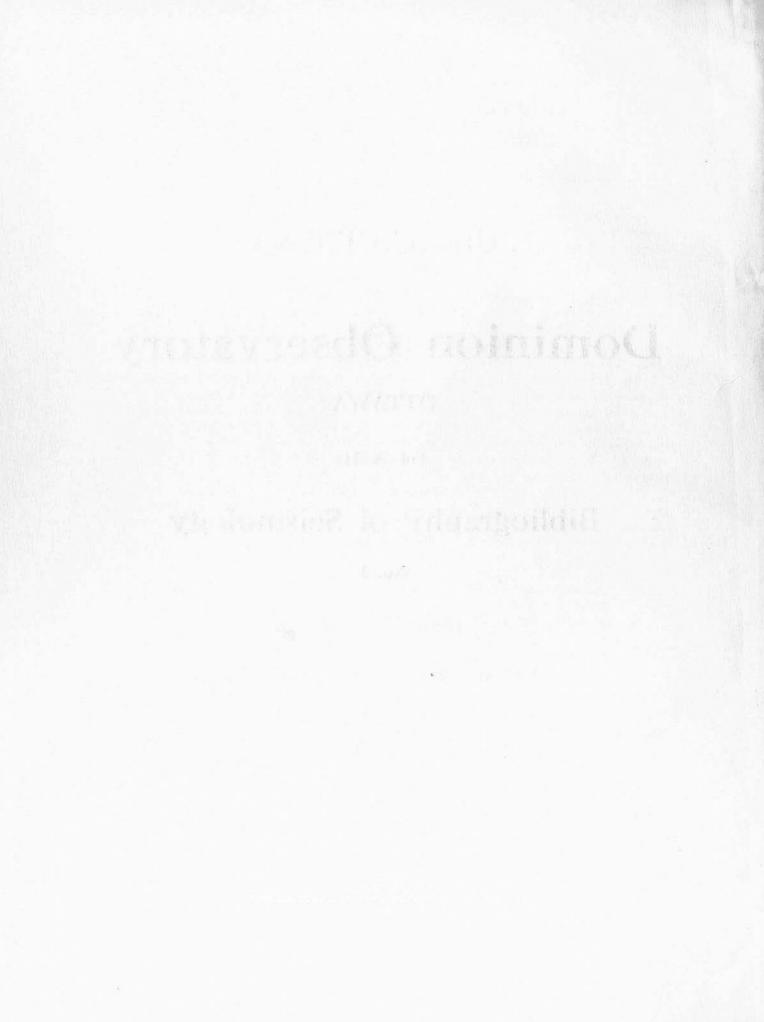
ERNEST A. HODGSON

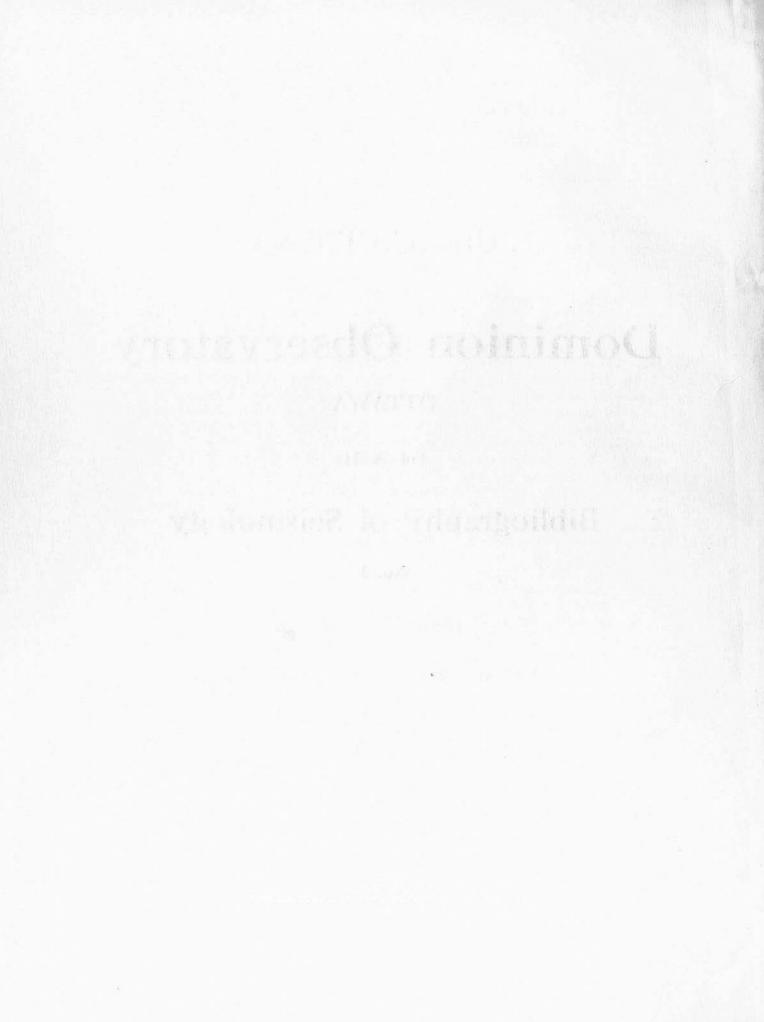
OTTAWA J. O. PATENAUDE, I.S.O. PRINTER TO THE KING'S MOST EXCELLENT MAJESTY 1940

Price 25 cents

This document was produced by scanning the original publication.

Ce document est le produit d'une numérisation par balayage de la publication originale.





Bibliography of Seismology

January, February, March, 1940

The effect of the disturbed world conditions is now being felt in the literature of seismology. The present issue of the *Bibliography* lists only half the number of items usually reported. This is partly due to the fact that less research is being done and less is being published on the subject. A lesser but still important reason is that the various publications are more difficult to obtain in Canada. Some are not available and others arrive after quite an unusual delay.

Under these circumstances, the Editor would ask all those who are or who have been collaborating in this work to be especially careful to report all publications that should be listed in the *Bibliography* and that are not likely to be received at the Dominion Observatory.

The collaboration of others is asked at this time. For the convenience of those reporting bibliographical items, a form has been prepared. The use of this form reduces the work of reporting to a minimum and ensures that all required data are included. A supply of these forms will be sent to those who request them. It is hoped that the combined efforts of all interested may enable the *Bibliography* to list all important papers in seismology or allied subjects wherever they may appear.

- ADAMSON, J. C., SELNES, W. E., and ROBSON, W. T., "III.—Rock Bursts at Lake Shore Mines". See No. 4758 of this list.
- 4716. AGAMENNONE, G., "Studio macrosismico del terremoto dell'Istria del 29 Agosto 1931", Bollettino della Società Sismologica Italiana, Vol. 37, No. 3-4, 146-159, 3 fig., bib., Rome, 1939.
- 4717. AGAMENNONE, G., and TRAFELLI, L., "Polemica Agamennone-Trafelli a proposito di periodicità nei terremoti 1930-1931", Tipografia Fratelli lacelli, 15 pp. in reprint, Rome, 1940.

The above is a series of reprints from *Il Messaggero*, Rome, appearing during 1930-31, and forming a record of a newspaper discussion by the authors indicated on the subject of seismic periodicity. G.A.

4718. ALLEN, Victor T., "This Earth of Ours", Bruce Publishing Co., 364 pp., 258 fig. Price
\$3.50. Milwaukee, 1938.

A review of the above book appears in the *Journal of Geology*, Vol. 47, No. 8, p. 848, Chicago, Nov.-Dec., 1939. R.R.B.

4719. AMERICAN ASKANIA COMPANY, "Tabular History of Geophysically Discovered Domes, Fields, and Prospects—Texas Gulf States", Editorial supplement to The Oil Weekly, Oct. 3, 1930, distributed by American Askania Company. Extra copies may be obtained from The Oil Weekly at 50c. each.

The publication consists of a single sheet about $20'' \ge 30''$, printed on both sides. A map about $10'' \ge 30''$ shows the positions of the domes, etc. A.A.Co.

- ---- BEANFIELD, R. McC., and HADLEY, Homer M., "Earthquakes and Structures". See No. 4732 of this list.
- 4720. BEERS, Roland F., "Velocity Stratification as an Aid to Correlation", Geophysics, Vol. 5, No. 1, 15-21, 2 fig., bib., Houston, Jan., 1940.

99118-2

- --- BLAU, L. W., MOUNCE, W. D., and RUST, W. M., Jr., Patent: Feedover Device. See No. 4752 of this list.
- 4721. Bowie, William, "The Gravity Anomaly an Important Factor in Earth Science", Science, No. 2355, Vol. 91, 158-160, New York, Feb. 16, 1940.
- 4722. BULLEN, K. E., "On recent Developments in Knowledge of the Earth's Interior", Acta Astronomica, Vol. C4, No. 1, 17-21, April, 1939. E.T.
- 4723. BUNDY, Francis P., "Stresses in Freely Falling Chimneys and Columns", Journal of Applied Physics, Vol. II, No. 2, 112-123, illus., Lancaster, Feb., 1940 R.R.B.
- 4724. BYERLY, Perry, "Seismicity of the Northern Pacific Coast of the United States", Bulletin of the Geological Society of America, Vol. 51. No. 2, 255-260, 2 fig., 1 pl., bib., New York, Feb., 1940.
- 4725. CALOI, Pietro,
 - "Sull'applicabilità dei metodi macrosismici nella determinazione delle profondità ipocentrali", Bollettino della Società Sismologica Italiana, Vol. 37, No. 3-4, 160-164, bib., Rome, 1939.
 - (2) "Sull'ipocentro e la profonfità ipocentrale del terremoto del Cansiglio del 18 Ottobre 1936", Ibid., 165-171, 1 fig., bib.
- 4726. CERTWRIGHT, C. Hawley,
 - (1) "Sensitivity and Resolution of Moving Coil Galvanometers. I", Review of Scientific Instruments, Vol. II, No. 1, 25-30, 1 fig., New York, Jan., 1940.
 - (2) "Resolving Power and Efficiency of Moving Coil Galvanometers", *Ibid*, 31-36, 3 fig., 2 tab., bib.
- ---- CHICK, A. C., "Trends in Earthquake Insurance and Engineering since 1933". See No. 4748 of this list.
- 4727. DALMASSO, F., "Sul terremoto delle Isole Eolie del 27-1-39", Geofisica Pura ed Applicata, Vol. 1, 80-98, Messina, 1939.

An abstract by G. Agamennone appears on pp. 175-176 of Bollettino della Società Sismologica Italiana, Vol. 37, No. 3-4, Rome, 1939.

- 4728. DISIN. The journal Disin is published in Tokyo, entirely in Japanese. In Vol. 7 (1935) appeared a number of papers of interest to seismologists. These are listed in the section devoted to abstracts, in the Japanese Journal of Astronomy and Geophysics, Vol. 16, No. 2-3, 30-31, Tokyo, 1939. They will be found listed in this issue of the Bibliography under the names of the respective authors: Matuzawa, Kogure, Kinosita, and Siratori.
- 4729. ECCLESHARE, Colin, "Earthquakes", Discovery, Vol. 3, No. 23, 106-114, 11 fig., bib., London, Feb., 1940.
- 4730. FRANKLIN INSTITUTE, "9,500 Foot Peak Discovered in Pacific", Journal, Franklin Institute, Vol. 229, No. 2, p. 279, Philadelphia, Feb., 1940.

4731. GANE, P. G., "Earth Tremors on the Rand", Journal of the Chemical Metallurgical and Mining Society of South Africa, Johannesburg, Oct., 1939.

A lengthy review appears on pp. 49-51 of The Mining Magazine, Vol. 62, No. 1, London, Jan., 1940

- 4732. HADLEY, Homer M., and BEANFIELD, R. McC., "Earthquakes and Structures" (Discussion of paper published in same journal in December, 1938), Proceedings of American Society of Civil Engineers, Vol. 65, No. 3, 565-570, Lancaster, March, 1939. R.R.B.
- 4733. HALET, F., "Note sur la cause probable des variations dans le débit des puits de la région de Wellen après le tremblement de terre de juin 1938", Bulletin, Société Belge de Géologie, Vol. 48, 631-634, 1938.

A short abstract in Italian, by G. Agamennone, appears on pp. 177-178 of Bollettino della Società Sismologica Italiana, Vol. 37, No. 3-4, Rome, 1939.

4734. HOFFMANN, M. G., "Structural and Magmatic Processes in the Isostatic Layer", Bulletin, American Association of Petroleum Geologists, Vol. 23, 1320-1351, Tulsa, 1939.
An abstract signed G.S.S. appears as No. 1246, p. 4084, of the Journal of the

An abstract, signed G.S.S., appears as No. 1246, p. 408A, of the Journal of the Institute of Petroleum, No. 194, Vol. 25, London, Dec., 1939.

- 4735. HONDA, H., and ITO, H., "On the Period of the P-Waves and the Magnitude of the Earthquake", *Geophysical Magazine*, Vol. 13, No. 2, 155-161, 6 fig., bib., Tokyo, Dec., 1939.
- 4736. HOWELL, L. G., KEAN, C. H., and THOMPSON, R. R., "Propagation of Elastic Waves in the Earth", *Geophysics*, Vol. 5, No. 1, 1-14, 8 fig., Houston, Jan., 1940.
- ---- ITO, H., and HONDA, H., "On the Period of the P-Waves and the Magnitude of the Earthquake". See No. 4735 of this list.
- KEAN, C. H., THOMPSON, R. R., and HOWELL, L. G., "Propagation of Elastic Waves in the Earth". See No. 4736 of this list.
- ---- KINOSITA, Zun'iti, "A Land-creep at Yokodani, Kii" (in Japanese). See pp. 269-280 of the publication reported as No. 4728 of this list.
- KOGURE, Tosio, "Statistic Investigation on the Inclination of Sliding Surface in Some Landslides" (in Japanese). See pp. 225-234 of the publication reported as No. 4728 of this list.
- ---- LANDSBERG, H., "Density of Seismograph Stations". See No. 4748 of this list.
- ---- LYNCH, William A., "Deep-focus Earthquake of May 8, 1938". See No. 4748 of this list.
- 4737. MACELWANE, James B., S.J., "So This Is Science", Proceedings, Missouri Academy of Science, Vol. 4, 87-92, bib., Saint Louis, 1939. J.B.M.
- 4738. MACELWANE, James B., S.J., "Geophysical Education in a Department of Geophysics", Geophysics, Vol. 5, No. 1, 80-90, bib., Houston, Jan., 1940.
- 4739. MALAMPHY, Mark C., "Geophysical Prospecting for Petroleum Structures in Alagoas", Mineracao e Metallurgia, Vol. 1, No. 5, 193-202, Rio de Janeiro, Jan.-Feb., 1937.
 - A brief abstract, signed C.A.H., appears on p. 39 of *Mines Magazine*, Vol. 30, No. 1, Golden, Jan., 1940.

- 4740. MARTEL, R. R., "Effect of Foundation on Earthquake Motion", Civil Engineering, Vol. 10, No. 1, 7-10, Easton, Jan., 1940. R.R.B.
- MATUZAWA, Takeo, "Some Examples Concerning the Deviation of the Direction of the First Motion of Earthquake" (in Japanese). See pp. 179-184 of the publication reported as No. 4728 of this list.
- 4741. MAXWELL, Louis R., "An Electrical Method for Compounding Sine Functions", Review of Scientific Instruments, Vol. 11, No. 2, 47-54, 11 fig., bib., New York, Feb., 1940.
- 4742. MILNE, John, "Earth Movements-Tremors and Pulsations", Geological Magazine, Decade 2, Vol. 9, No. 11, 481-485, London, Nov., 1882. W.C.R.
- 4743. MOISSEIFF, Leon S., "Provision for Seismic Forces in Design of Golden Gate Bridge", Civil Engineering, Vol. 10, No. 1, 33-35, Easton, Jan., 1940. R.R.B.
- 4744. MORITA, M., and YOSIMURA, Y., "On Seismic Waves at Large Distances", Geophysical Magazine, Vol. 13, No. 2, 163-191, 7 fig., 2 pl., 9 tab., bib., Tokyo, Dec., 1939.
 - MOUNCE, W. D., RUST, W. M., Jr., and BLAU, L. W., Patent: Feedover Device. See No. 4752 of this list.
- ---- MUKHERJI, S. M., and RAMANATHAN, K. R., "A Seismological Study of the Baluchistan (Quetta) Earthquake of May 31, 1935". See No. 4757 of this list.
- 4745. MURO, Francisco P. De Luca, "Importancia de la exploración geofisica y su applicación en la Argentina", Boletin de Informaciones Petroleras, Año 16, No. 184, 34-45, 7 fig., bib., Buenos Aires, Dec., 1939.
- 4746. NATIONAL GEOGRAPHIC, "Turkey, Where Earthquakes Followed Timur's Trail", National Geographic Magazine, Vol. 77, No. 3, 395-406, Washington, March, 1940.

A series of 15 illustrations, showing the country in which the earthquake of December 27, 1939, occurred. These do not show any effects of the earthquake but do show pictures which cannot now be duplicated, the places shown having been destroyed by the earthquake.

- 4747. NATURE. Brief notes of interest to seismologists have appeared in recent issues of Vol. 145 of the above publication (London, 1940) as follows:
 - (1) "Bibliography of Seismology", and "Earthquake in Central America", No. 3662, p. 24, Jan. 6.
 - (2) "The Ogasima (Japan) Earthquake of May 1", Ibid., p. 34.
 - (3) "The Earthquake in Turkey", and "Other Recent Earthquakes", No. 3663, p. 62, Jan. 13.
 - (4) "The Earthquake in Turkey", No. 3664, p. 96, Jan. 20.
 - (5) "Recent Earthquakes", No. 3665, p. 143, Jan. 27.
 - (6) "Microseisms and Transmission of Atmospheric Disturbances", Ibid., p. 154.
 - (7) "The McComb-Romberg Seismometer", Ibid., p. 159.

BIBLIOGRAPHY OF SEISMOLOGY

4748. NELSON, James H., "Earthquake Notes", Vol. 11, No. 3, 8 pp., Washington, Jan., 1940.

The above publication is the organ of the Eastern Section, Seismological Society of America. Mr. Nelson, Chairman of the Editorial Committee, may be addressed at the U.S. Coast and Geodetic Survey, Washington, D.C. Items of interest to seismologists and suitable for the columns of *Earthquake Notes* should be reported to Mr. Nelson.

The present issue deals in order with the following subject headings: Spring Meeting—1940; New Committees of the Eastern Section; Methods and operations; Earthquakes at Boulder Dam; Seismographs for Shasta Dam Area?; San Francisco-Oakland Bay Bridge; Seismic investigation, North Atlantic Ocean; New seismograph for the Fiji Government; Disastrous earthquakes, Jan.-June, 1938; Deep-focus earthquake of May 8, 1938 (by William A. Lynch); Trends in earthquake insurance and engineering since 1933 (by A. C. Chick); Geologic age (a correction); Density of seismograph stations (by H. Landsberg); Earthquake near Seattle; New Jersey Shock of November 14, 1939; Earthquake in Turkey; Southern California earthquakes; Strong-motion records; Epicentres: Items.

- 4749. NORRMAN, Ernst, "Tuning Fork Stabilization", *Electronics*, Vol. 13, No. 1, 15-20, 6 fig., New York, Jan., 1940.
- 4750. OBERT, Leonard, "Measurement of Pressures on Rock Pillars in Underground Mines", U.S. Bureau of Mines Reports of Investigations, No. R.I. 3444, 15 pp., 6 fig., 2 tab., bib., Washington, April, 1939.
- 4751. ODDONE, Emilio, "Un modello inteso a mostrare la propagazione entro il globo delle onde sismiche longitudinali", Geofisica Pura e Applicata, Vol. 1, No. 2, 73-79, Messina, 1939.
- 4752. PATENT. U.S. No. 2,180,949, L. W. Blau, W. D. Mounce, and W. M. Rust, Jr. Issued Nov. 21, 1939. Assigned to Standard Oil Development Co. Feedover Device. See p. 105, *Geophysics*, Vol. 5, No. 1, Houston, Jan., 1940.
- 4753. PENTA, F., "Le recenti idee del Rittmann sul magma originario e sull'origine del Sial", Bollettino della Società Sismologica Italiana, Vol. 37, No. 3-4, 107-136, 5 fig., bib., Rome, 1939.
- 4754. PERRET, Frank A., "The Volcano-seismic Crisis at Montserrat, 1933-1937", Carnegie Institution, Washington, 76 pp., 51 fig., Washington, 1939.
 A review by Adolph Knopf appears on pp. 149-150 of American Journal of Science, Vol. 238, No. 2, New Haven, Feb., 1940.
- 4755. PHILADELPHIA INQUIRER, "Earth's Revolt at Boulder Dam", Everybody's Weekly (Sunday supplement to Philadelphia Inquirer), p. 12, 3 fig., Philadelphia, Jan. 21, 1940.
 W.W.D.

4756. POLLI, Silvio, "Prospezione sismica in forme elementari di terreno accidentato", Bollettino

4757. RAMANATHAN, K. R., and MUKHERJI, S. M., "A Seismological Study of the Baluchistan (Quetta) Earthquake of May 31, 1935", *Records of the Geological Survey of India*, Vol. 73, Part 4, 483-513, 5 fig., 8 tab., bib., Bombay, 1938.

della Società Sismologica Italiana, Vol. 37, No. 3-4, 137-145, 3 fig., bib., Rome, 1939.

4758. ROBSON, W. T., ADAMSON, J. C., and SELNES, W. E., "III.—Rock Bursts at Lake Shore Mines", Canadian Mining and Metallurgical Bulletin, No. 333, 7-30, 15 fig., bib., Montreal, Jan., 1940.

The two preceding papers of this series have been listed, respectively, as No. 4519 and No. 4693 of these lists.

- ---- RUST, W. M., Jr., BLAU, L. W., and MOUNCE, W. D., Patent: Feedover Device. See No. 4752 of this list.
- 4759. SAVAGE, J. L., "Earthquake Studies for Pit River Bridge", Civil Engineering, Vol. 9, No. 8, 470-472, Easton, Aug., 1939.
 R.R.B.
- 4760. SCIENCE. Brief items of interest to seismologists have appeared in recent issues of Vol. 91 of the above periodical (New York, 1940) as follows:
 - (1) "The Earthquake in Asia Minor", No. 2349, p. 10, suppl., Jan. 5.
 - (2) "Guam Earthquake", "Depth Charges in North Atlantic for Peaceful Purpose", and "Deep-sea Canyons", No. 2352, p. 9, suppl., Jan. 26.
 - (3) "Dr. Daly's Lecture on 'New Light on the Earth's Interior' ", No. 2354, p. 139, Feb. 9.
- 4761. SCIENCE NEWS-LETTER. Brief notes of interest to seismologists have appeared in recent issues of Vol. 37 of the above periodical (Washington, 1940) as follows:
 - (1) "Earthquake Gives Scientists Hint of Earth Structure", and "Quakes Come in Groups", No. 2, p. 22, Jan. 13.
 - (2) "Earth Trembles" (Jan. 16), No. 4, p. 55, Jan. 27.
 - (3) "Dropping Depth Charges for a Peaceful Purpose", Ibid., p. 63.
 - (4) "G.E. Alnico Magnet Lifts 4,500 Times Its Own Weight", No. 5, p. 67, Feb. 3.
 - (5) "Oil Discoveries in Nebraska Based on Success in Michigan. New Finds Are Based on Two Years of Exploration following Corrugations in Geologic Basin Underground", *Ibid.*, p. 79.
- SELNES, W. E., ROBSON, W. T., and ADAMSON, J. C., "III.—Rock Bursts at Lake Shore Mines". See No. 4758 of this list.
- 4762. SHEPARD, Francis P., "Continental Shelf Sediments", Pan-American Geologist, Vol. 73, No. 1, 21-28, bib., Des Moines, Feb., 1940.
 - --- SIRATORI, Katuyosi, "Change of Water-level Accompanied by the Taiwan Earthquake on April 21, 1935" (in Japanese). See pp. 605-612 of the publication reported as No. 4728 of this list.
- 4763. SOMVILLE, O., "Le tremblement de terre Belge du 11 juin 1938", Annales de l'Observatoire Royal de Belgique, Série 3, Tome 2, 16 pp., 2 fig., 4 tab., 2 pl., 2 maps, bib., Gembloux, 1939.
- 4764. STRALEY, H. W., III. A review of "Internal Constitution of the Earth" (No. 4539 of these lists), Journal of Geology, Vol. 48, No. 1, 108-110, Chicago, Jan.-Feb., 1940.

Another review of the same book, signed R.H.R., appears on pp. 77-79 of Geological Magazine, Vol. 77, No. 1, Hertford, Jan.-Feb., 1940.

- ---- THOMPSON, R. R., HOWELL, L. G., and KEAN, C. H., "Propagation of Elastic Waves in the Earth". See No. 4736 of this list.
- 4765. TILLOTSON, Ernest, "The Earthquake in Turkey", Nature, No. 3662, Vol. 145, 13-15, 1 fig., London, Jan. 6, 1940. R.R.B.
- ---- TRAFELLI, L., and AGAMENNONE, G., "Polemica Agamennone-Trafelli a proposito di periodicità nei terremoti 1930-1931". See No. 4717 of this list.
- 4766. VAN DE POEL, B., "Effets du tremblement de terre du 11 juin 1938 sur le débit des puits artésiens de la région de Wellen (Limbourg)", Bulletin, Société Belge de Géologie, Vol. 48, 626-631, 1938.
- 4767. WANTLAND, Dart, "Geophysics Education at an Engineering Institution", Geophysics, Vol. 5, No. 1, 91-101, 2 fig., 2 tab., Houston, Jan., 1940.
- 4768. WILLIS, Bailey, "Wrinkles of Asia—A Study of Mountain Ranges", Scientific Monthly, No. 290, Vol. 49, No. 5, 431-451, 5 fig., New York, Nov., 1939
- 4769. WOODBURY, David O., "Earthquakes Need Not Kill", Scientific American, Vol. 161, No. 2, 71-74, 4 fig., New York, Aug., 1939.

An abridged Dutch translation with the title, "Aardbevingen behoeven geen slachtoffers te maken", appeared in *De Kern*, Vol. 9, No. 10, 707-711, Amsterdam, Oct., 1939. J.F.S.

— YOSIMURA, Y., and MORITA, M., "On Seismic Waves at Large Distances". See No. 4744 of this list.

LIST OF COLLABORATORS

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

Agamennone, G., Secretary, Società Sismologica Italiana, Via Cairoli, 101, Rome (32)	G.A.
American Askania Company, Houston, Texas, U.S.A.	A.A.C.
Bodle, Ralph R., United States Coast and Geodetic Survey, Washington, D.C., U.S.A.	R.R.B.
Doxsee, W. W., Dominion Observatory, Ottawa, Canada.	W.W.D.
Macelwane, James B., S.J., Department of Geophysics, Saint Louis University, Saint Louis, Mo., U.S.A.	J.B.M.
Repetti, W. C., S.J., Manila Observatory, Manila, Philippine Islands.	W.C.R.
Somville, O., Observatoire Royal de Belgique, Brussels, Belgium.	0.S.
Steenhuis, J. F., Kleverparkstraat 16, Haarlem, Holland.	J.F.S.
Tillotson, E., "Aldercroft", The Homestead, Menston-in-Wharfedale, Yorkshire, England	E.T.