

INTERNATIONAL HYDROGRAPHIC BIBLIOGRAPHY.

The Directing Committee of the International Hydrographic Bureau have decided to resume publication, suspended since the month of November, 1940 *, of the Hydrographic Bibliography in the same form as that described in Volume II, No. 2, of the *International Hydrographic Review*.

As a memorandum, the classification adopted is reproduced hereunder :

SECTION I. - HYDROGRAPHY.

- A. Treatises and Manuals.
- B. Topography. Configuration of the Coast. Land-marks. Coastal Surveys.
- C. Aerial Photography and Application.
- D. Hydrographic Surveys and Soundings :
 - D₁ Processes of Sounding.
 - D₂ Echo Sounding.
 - D₃ Ultra-sounds. Magneto-striction.
 - D₄ Deep Sea Sounding.
 - D₅ Nature of the Sea Bottom.
- E. Dredging and Sweeping.
- F. Tides :
 - F₁ General.
 - F₂ Harmonic Analysis.
 - F₃ Gauges, etc.
 - F₄ Tide Tables.
- G. Currents.
- H. Chart-Projections and Calculations. Tables.
- I. Cartography :
 - I₁ Conventional Symbols.
 - I₂ Abbreviations.
- J. Hydrographic Instruments.
- K. Hydrographic and Drawing Material.
- L. Hydrographic Tables.
- M. Surveying Vessels.
- N. Hydrographic Services (History, organization, working, regulations, etc.).
- O. Hydrographic Personnel.
- P. Courses. Schools and Training.
- Q. General Instructions with reference to Nautical Documents :
 - Q₁ General Information.
 - Q₂ Sailing Directions.
 - Q₃ Views of Coasts.
- R. Nautical Charts.
- S. Notices to Mariners.
- T. Lists of Lights.
- U. Distance Tables.
- V₁ Correction of Nautical Documents.
- V₂ Correction of Charts.
- W₁ Printing.
- W₂ Engraving and Production of Charts.
- W₃ Processes of Reproduction.

(*) See : *Hydrographic Review*, Vol. XVII, N° 2, November, 1940, pp. 102-115, Nos. 4295-4370.

- X. New Editions.
- Y₁ Publications. Annals. Reports.
- Y₂ Distribution of Publications.
- Z₁ Archives. Catalogues. Indexes.
- Z₂ Library.

- AA. Hydrographic Committees, Conferences and Congresses, Reports of Meetings.
- CC. Old Cartography.
- DD. Old Hydrographic Works.
- EE. History of Hydrography.
- HH. Hydrology and Hydraulics (pro m.).

SECTION II. - NAVIGATION.

- A. Nautical Astronomy.
- B. Treatises and Manuals on Navigation.
- C. Methods of Surface and Aerial Navigation.
- D. Nautical and Mathematical Tables.
- D₁ Calculating Machines.
- E. Ephemerides.
- F₁ Nautical Instruments.
- F₂ Compasses.
- F₃ Chronometers.
- F₄ Optics and Range-finders.
- F₅ Instrument Makers.
- F₆ Catalogues, Current prices.
- G₁ Radiotelegraphy applied to Navigation. Radar.
- G₂ Radio-telegraphic and Radio-goniometric Stations. Apparatus.
- H. Time Signals.
- I. Coast Lighting. Light-Beacons and Lights.
- J. Buoys and Beacons.
- K. Engineering Works of Ports.
- L. Fog Signals.
- M. Port Signals.
- N. International Code of Signals.
- O. Signal Stations.
- P. Life-Saving Stations.
- Q. Pilotage.
- R. Police and Maritime Regulations.
- S. Miscellaneous Maritime Organizations.

SECTION III. - MARITIME METEOROLOGY.

- A. General.
- B. Treatises and Manuals.
- C. Winds.
- D. Rain.
- E. Temperature.
- F. State of Sea. Salinity.
- G. Ice.
- H. Meteorological Instruments.
- I. Atlases. Meteorological Charts.
- J. Year-Books.
- K. Conferences and Commissions.

- L. Meteorological Signals.
- M. Storm Signals.
- N. Local Signals.

SECTION IV. - OCEANOGRAPHY.

- A. General.
- B. Treatises and Manuals.
- C. Voyages.
- D. Terminology.

SECTION V. - MISCELLANEOUS.

- A₁ Geodesy.
- A₂ Astronomical Determination of Positions.
- A₃ Geographical Positions.
- A₄ Triangulation. Precise Levelling.
- B. Physical Features of the Globe. Geology.
- C₁ Terrestrial Magnetism.
- C₂ Magnetic Tables.
- C₃ Gravity.
- D₁ Geography, General.
- D₂ Maritime Voyages of Exploration and Discovery (ancient).
- D₃ Maritime Voyages of Exploration and Discovery (modern).
- D₄ Atlases and Maps.
- L₁ Languages.
- L₂ Auxiliary Languages.
- L₃ Transcription of Alphabets and Geographical Names. Toponymy.
- L₄ Vocabularies, Glossaries and Dictionaries.
- M. Units of Measure of Length, Surface, Volume, etc.

- AA. Applied Sciences.
- BB. Biographies.
- CC. Annuals, Newspapers, Periodicals.
- NN. United Nations - UNESCO.
- PP. International Associations.
- ZZ. Miscellaneous.



HYDROGRAPHIC BIBLIOGRAPHY

BIBLIOGRAPHIE HYDROGRAPHIQUE

I. — BOOKS OF REFERENCE OUVRAGES DE RÉFÉRENCE

TREATISES AND MANUALS. — TRAITÉS ET MANUELS

4371. — **Traité de topographie générale** (Cours professé à l'Ecole Nationale du Génie Rural). — (Treatise on General Topography. - Course given at National Rural Engineering School).
Par A. CARRIER, — Un Vol. in-8°, 757 pages, figures, 3^e Edition. — Girard, Barrère et Thomas, Paris, 1947. — Prix : 1.200 fr.
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AERIAL PHOTOGRAPHY. — PHOTOGRAPHIE AÉRIENNE

4372. — **Manual of Aerial Photogrammetry.** (Manuel de Photogrammétrie aérienne).
By P. G. McCURDY. — 26 cm. × 20 cm. — 102 pages. — 51 fig. — H. O. Pub. N° 591 (Reprint, June 1946, of H. O. Misc. N° 9257). — Hydrographic Office, Navy Department, Washington 1940. — Price : \$ 1.00.
4373. — **Military Maps and Air Photographs.** Their use and interpretation. — (Les Cartes Militaires et les Photographies aériennes. — Usage et interprétation).
By A. K. LOBECK & W. J. TELLINGTON. — 11 ½ × 9 inches — x + 250 pp. maps, diagrams & illustr. — McGraw-Hill, New-York & London, 1944.
4374. — **General Specifications for Photogrammetric Compilation of Topographic Maps.** (Spécifications générales pour la compilation photogrammétrique des cartes topographiques).
27 cm. × 20 cm. — 36 pages & ill. — H. O. Misc. N° 11831. — U.S.N.H.O. Division of Chart Construction, Photogrammetry Section. — U. S. Navy Hydrographic Office, Washington, First Edition October, 1945.
4375. — **The Determination of the Depths and Extinction Coefficients of Shallow Water by Air Photography using Colour Filters.** (Détermination des petites profondeurs par la photographie aérienne avec filtres colorés par la méthode du coefficient d'extinction).
By Major J. Grange MOORE. — 55 pp. — Army Photographic Research Unit, Larkhill, Dec. 1945. — Cf. *Annales de Géophysique*, Tome 3, année 1947, Paris, Déc. 1947, page 263.
4376. — **Applied Photogrammetry.** (La Photogrammétrie appliquée).
By Ralph O. ANDERSON. — 518 pp. — Edwards Brothers Inc., Ann Arbor, Michigan, Fourth Edition 1946. — Price : \$ 6.00. — Cf. *Surveying and Mapping*, Washington, January-June 1947, page 94.
4377. — **An Introductory Course in Photogrammetry.** (Cours préparatoire de photogrammétrie).
26 cm. × 20 cm. — 130 pages. — Appendices, illustr. & Plates. — H. O. Publication N° 593 — U.S.N.H.O. Division of Chart Construction, Photogrammetry Section. — U. S. Navy Hydrographic Office, Washington, August 1947.
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TIDES. — MARÉES

4378. — **Note sur la Prédition approchée de la Marée de Brest à l'aide de la Période Chaldeenue.** (Extrait du 27^e Cahier des Recherches sur le régime des côtes). — (Note on approximate Tidal Predictions of Brest Tide through use of the Chaldean Period).

Par A. COURTIER, Ingénieur Hydrographe Général. — 21 × 27 cm. — 104 pages. — Service Hydrographique de la Marine, N° 14-1017. — Imprimerie Nationale, Paris, 1946.

CARTOGRAPHY. — CARTOGRAPHIE

4379. — **Cartografía Marítima Española.** (Spanish Nautical Charts). (Cartographie nautique espagnole).

By J. F. GUILLÉN. — Madrid 1943.

Cf. *Boletín de la Real Sociedad Geográfica*, Madrid, Tomo LXXXI, 1945, p. 386.

4380. — **Foundations of Cartographical Knowledge : General Section ;** (in Russian). (Bases des Connaissances cartographiques : Section générale ; en russe).

By K. A. SALISHCHEV (2nd rev. ed.). — 8 ½ × 5 ½ inches. — 368 pp. Maps. — Institute of Geodesy and Cartography, Moscow, 1944.

4381. — **Manual de Cartografía.** (Cartography Manual). (Manuel de Cartographie).

By J. GAVIRA & A. REVENGA, in 8°. — 195 pp., VII pl. & ill. — Escelicer, S. A., Madrid, 1945.

4382. — **Map Projections.** (Projections cartographiques).

By G. P. KELLAWAY. — 8 ½ × 5 ½ inches. — viii + 128 pages — diagr. — Methuen, London, 1946. — Price : 10 s 6 d.

4383. — **Nautical Chart Manual.** (Manuel de cartographie marine).

By H. R. EDMONSTON. — 26 cm. × 20 cm. — 84 pages + 44 pages of Figures & Index. — U. S. Coast and Geodetic Survey, Department of Commerce, Washington, June 1948.

4384. — **The First Engraved Atlas of the World : the Cosmographia of Claudius Ptolemaeus, Bologna, 1477.** (Le premier Atlas Mondial en gravure : la cosmographie de Claude Ptolémée, 1477).

By E. LYNAM. — 17 ½ × 11 ½ inches. 12 + 34 + 4 pp. — 4 map-reproductions. — The George H. Beans Library (Publication N° 16), Jenkintown, 1941. — Price : Doll, 10 & 33. — Review in *The Geographical Journal*, Vol. C, N° 5, 6, page 261. — London, 1942.

4385. — **Maps and Map-Makers.** (Cartes et Cartographes).

By V. R. TOOLEY. — 100 full-page and other reproductions of maps, incl. 8 in colour, small 4 to, cloth, 1949. — First general work dealing with whole subject. Traces development of map-making from earliest beginnings to mid-nineteenth century. Historical and biographical notes on individual cartographers. — Price : £ 1/10/-. — Frank Hammond, 223 Drews Lane, Birmingham 8, Eng. No. 434, Catalogue N°. 61 (1950).

HYDROGRAPHIC INSTRUMENTS.
INSTRUMENTS HYDROGRAPHIQUES

4386. — **The Twin Merchant Calculating Machine and its Application to Survey Problems.** (Machine à Calculer Marchant et son application aux problèmes du levé).

By L. J. COMRIE. — Scientific Computing Service Limited, London, W.C.I. — Price : 10 s.

HISTORY OF HYDROGRAPHY. — HISTOIRE DE L'HYDROGRAPHIE

4387. — **Charting a Continent.** A brief Memoir on the history of Marine exploration and hydrographical surveying in Australian Waters from the discoveries of Captain James Cook to the War Activities of the Royal Australian Navy Surveying Service. (*L'établissement des Cartes Marines d'un Continent*).
By Lt.-Commander Geoffrey C. INGLETON. — 146 pages. — Angus and Robertson, Ltd., Sydney, 1944. — Cf. *U. S. Naval Institute Proceedings*, Vol. 74, N° 541, Annapolis, March 1948, pp. 358-359.
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NAUTICAL ASTRONOMY. — ASTRONOMIE NAUTIQUE

4388. — **Processos de Redução das Observações Meridianas em Ascensão Recta.** (Reduction Methods of Meridian Observations in Right Ascension). (*Procédés de Réduction des Observations méridiennes en ascension droite*).
By José António MADEIRA. — 19×25 ½ cm. — 32 pp. — Publicações do Sindicato Nacional dos Engenheiros Geógrafos — 3^a série, N° 3. — Coimbra, 1944.
4389. — **Leitfaden der Astronomischen Orts- und Zeitbestimmung.** (Method for determining astronomical position and time). (*Méthode pour déterminer une position astronomique et le temps*).
By M. WALDMEIER. — In-8°. — 84 pp. — 29 fig. & 13 tab. — Verlag II. R. Sauerländer & C° Aarhus, 1946. — Price : Sw. Frs. 10.00.
4390. — **Die genauen Methoden der Astronomisch-Geographischen Ortsbestimmungen.** (Accurate methods for astronomical and geographical position fixing). (*Méthodes précises pour déterminer une position astronomique ou géographique*).
By Th. NIETHAMMER. — In 8°. — 181 pp. — 19 fig. — Verlag Birkhäuser, Basel, 1947. — Prix : Sw. Frs. 28. — Cf. *Geofisica Pura e Applicata*, Vol. XI, Fasc. 1-2, Milan, 1948, page 92.
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AIR NAVIGATION. — NAVIGATION AÉRIENNE

4391. — **Instrument Flying.** (Le vol à l'aide d'instruments).
By Captain P.V.H. WEEMS, & Charles A. ZWENG. — 486 pages. — Weems System of Navigation, Annapolis, Maryland, 1947. — Price : \$ 4.50. — Cf. *U. S. Naval Institute Proceedings*, Vol. 74, N° 541, Annapolis, 1948, March. — pp. 357-358.
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**NAUTICAL AND MATHEMATICAL TABLES.
TABLES NAUTIQUES ET MATHÉMATIQUES**

4392. — **Eight-figure Tables of the Trigonometrical Functions for every Second of Arc.** (Tables à huit décimales des fonctions trigonométriques pour chaque seconde d'arc).
By J. PETERS. — Scientific Computing Service Limited, London W. C. I. — Price : £ 6/10 s.
4393. — **Index of Mathematical Tables.** Part I : Tables suitable for work in selected subjects. - Part II : Bibliography of published Tables. (*Index pour les Tables mathématiques. - 1^{re} partie : Tables convenant à divers travaux. - 2^{me} partie : Bibliographie de Tables publiées*).
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4394. — **Mathematical Tables and Aids to Computation.** A clearing-house for information about mathematical tables, etc. ; reviews ; lists of errors ; details of unpublished tables. (*Tables mathématiques et aides pour les calculs*). National Research Council's Quarterly. — Scientific Computing Service Limited, London W.C.I. — Price : 25 s. a year.

4395. — **Calculating Machines. Recent and Prospective Developments and their Impact on Mathematical Physics ; Inaugural Lecture.** (Machines à calculer. - Progrès récents et progrès en perspective ; leur influence sur la physique mathématique).
By Prof. D. R. HARTREE. — 40 pp. — 2 plates. — University Press, Cambridge, 1947. — Price : 2 s.
4396. — **Computing Mechanisms and Linkages.** (Mécanismes et Appareils articulés pour le Calcul).
By Antonin SVOBODA. — 9 × 6 inches. — 359 pages. — Mc Graw-Hill Publishing Co. Ltd., Aldwych House, London, W.C.2. — Price : \$ 4.50.
4397. — **Star Tables for Air-Navigation** — Computed altitude and true azimuth for all latitudes. — (Tables stellaires pour la Navigation Aérienne - hauteur et azimut vrai calculés pour toutes les latitudes).
30 cm. × 24 cm. — 321 pages. — H. O. Publication N° 249. — Preliminary Edition, 1947. — United States Navy Department, Hydrographic Office, Washington, 1947. — Price : \$ 2.00.
4398. — **Five Place Tables.** (Logarithms of integers, logarithms and natural values of trigonometric functions in the decimal system for each grade from 0 to 100 grades, with interpolation tables. — Tables à cinq décimales. Logarithmes de nombres entiers ; logarithmes et valeurs naturelles de fonctions trigonométriques dans le système décimal pour chaque grade de 0 à 100, avec tables d'interpolation).
By P. WIJDENES, Groningen, P. Noorhoff, Ltd, 2nd ed. in reprint, cloth f 5.25. — (Sub-divisions into decigrades, centigrades, and milligrades. Supplementary tables for interconversion of degrees, grades, and radians) Stichting Grafisch Exportcentrum, Amsterdam.

EPHEMERIDES

4399. — **Aviation Astronomical Yearbook for 1947, January-June.** (The title quoted is a translation of the Russian title ; all literary matter, headings, &c. are in Russian).
8.1 × 10.2 inches. — 183 pages + loose card. — U.S.S.R. Ministry of the Armed Forces. Moscow, September, 1946. — (Annuaire Astronomique Aéronautique - Janv.-Juin 1947). — Cf. *The Journal of the Institute of Navigation*, Vol. I, N° 2, London, April 1948, page 186.
4400. — **Altitude and Azimuth Almanac for August-December 1947.** (Ephémérides de Hauteur et d'Azimut, Août-Déc. 1947).
7.2 × 10.2 inches — vi + 93 pages. — Hydrographic Department, Japan, May, 1947. — Cf. *The Journal of the Institute of Navigation*, Vol. I, N° 2, London, April 1948, page 185.

NAUTICAL INSTRUMENTS. — INSTRUMENTS NAUTIQUES

4401. — **Star Compass** : Longitude Finder, Star Clock, and Planisphere (Model for 50° - 55° N.). (Compas armillaire servant pour trouver la longitude, de pendule sidérale, et de planisphère - Mod. pour les latitudes de 50° à 55° N.).
F. CHICHESTER. — 6 × 5 ½ inches. — 44 pp. — Allen & Unwin, London, 1945. — Price : 5 s. 6 d.
4402. — **The Adjustment and Testing of Telescope Objectives.** (Réglage et étalonnage des objectifs télescopiques).
By H. Dennis TAYLOR. — Demi-8°. — 4^e édit. — viii + 95 pp. — Sir Howard Grubb, Parsons & C°, Newcastle-upon-Tyne, 1946. — Price : 17 s. 6 d.
4403. — **Traité de l'Astrolabe.** (Treatise on Astrolabes).
Par Henri MICHEL. — 11 × 9 inches. — viii + 202 pages ; diagrams and illus. — Gautier-Villars, Paris, 1947. — Cf. in review *The Geographical Journal*, Vol. CXIV, September 1949, page 97. — Cf. *L'Universo*, No. 3, Firenze, Maggio-Giugno 1948, pp. 321-324.

**RADIO AIDS TO NAVIGATION. RADAR.
AIDES A LA RADIO-NAVIGATION. RADAR**

4404. — **A Survey of the Principles and Practice of Wave Guides.** (Etude des Principes et de la Pratique des Guides d'Ondes).
By Dr. L. G. H. HUXLEY. — (Modern Radio Technique Series). — pp. xi+328. — At the University Press, Cambridge, 1947. — Price : 21 s. net. — Cf. *Nature*, N° 4088, London, 6 March 1948, page 334.
4405. — **The Future of Hyperbolic Navigation** (PB-2834). (Three hyperbolic navigational systems - the British Gee and Decca and the Loran, are described and evaluated). — L'avenir de la Navigation hyperbolique (PB-2834). Description des 3 méthodes - "Gee" britannique, Decca, et Loran).
By J. A. PIERCE. — 23 pp. — Office of Technical Services, Department of Commerce, Washington, D. C. — Price : Photostat, \$ 2.00 ; microfilm, \$ 0.50.
4406. — **Elements of Loran** (PB-25369). (A general exposition of the principles of the Loran system). (Les éléments du Loran - Exposition générale des principes du système Loran).
By B. W. SITTERLY. — 45 pp. — Office of Technical Services, Department of Commerce, Washington, D. C. — Price : Photostat, \$ 4.00 ; Microfilm, \$ 0.50.
4407. — **Radiogoniometria con principii di radionavigazione.** (Radiogoniometry and Principles of Radionavigation. — La radiogoniométrie et les principes de la radionavigation).
By Gen. SACCO Luigi. — pp. XI+291. — U. Hoepli, Milano, 1946. — Price : L. 400.
4408. — **Determinação radiotelegráfica da longitude e problemas correlativos.** (Radio determination of longitude and related problems. — Détermination radiotélégraphique de la longitude et problèmes y relatifs).
Eng. Geógrafo José Antonio MADEIRA. — 15 X 10 cm. — pp. XVIII + 206; 23 figs. and diagr.; tables. — Sindicato Nacional dos Engenheiros Geografos, Porto, 1946.
4409. — **Radio Aids to Navigation.** (Les Aides à la Radionavigation).
By Dr. R. A. SMITH. — (Modern Radio Technique Series). — pp. xii+114 — 7 plates. — At the University Press, Cambridge, 1947. — Price : 9 s. net. — Cf. *Nature*, N° 4088, London, 6th March 1948, page 334 & *The Journal of the Institute of Navigation*, Vol. 1, N° 2, London, April 1948, page 187.
4410. — **Le radar.** (Radar).
par Jean CAMUS. — In-15°, 62 pp., 9 fig. — Editions Elzévir, Paris, 1946.
4411. — **Radio Navigation Radar and Position Fixing Systems for Use in Marine Navigation.** (Radio-Navigation, le Radar et les systèmes de détermination du point à l'usage de la navigation maritime).
International Meeting on Radio Aids to Marine Navigation, May 1946, Vol. II. — Ministry of Transport. — In-8°, 190 pages, 49 fig. — His Majesty's Stationery Office, London, 1946. — Price : 5 shillings net.
4412. — **Radar for Students.** (Le Radar à la portée des Etudiants).
By The Staff of the Radiophysics Laboratory, Council for Scientific and Industrial Research, Australia — Pp. viii+579+31 plates. — Chapman and Hall, Ltd., London, 1948. — Price : 50 s. net. — Cf. *Nature*, Vol. 164, N° 4176, London, Nov. 12, 1949, page 810.
4413. — **Micro-Waves and Wave Guides.** (Ondes micrométriques et leurs guides).
By H. M. BARLOW, B. Sc., Ph. D. — 122 pp., 70 figs. — Constable & Co. Ltd., 10 Orange St., London, W.C. 2.
4414. — **Ondes et Electrons.** (Waves and Electrons).
By P. BRICOUT. — 11×17 cm. — No. 113, Collection Armand Colin, Dec. 1949. — Librairie Armand Colin, 103, boulevard St. Michel, Paris (V°).

METEOROLOGY. — MÉTÉOROLOGIE

4415. — **The Snellius Expedition** in the Eastern part of the Netherlands East Indies, 1929-1930.

III. - S. W. VISSER : *Meteorological Observations*, 1936. — 2 pl., 25 figs., 81 tables, vii, 116 pp., cloth F. 9.45. — Stichting Grafisch Exportcentrum, Amsterdam, 1950.

4416. — **Wind, Sea, and Swell : Theory of Relations for Forecasting.** (Vent, Mer, et Houle : Rapports théoriques aux fins de prédition).

By H. U. SVERDRUP and W. H. MUNK. — H. O. Publication N° 601. — 25 cm. × 20 cm. — 44 pages — 15 fig. & append. — Hydrographic Office, Washington, March, 1947.

OCEANOGRAPHY. — OCÉANOGRAPHIE

4417. — **The Snellius Expedition** in the Eastern part of the Netherlands East Indies, 1929-1930.

II. - *Oceanographic Results*. - I. Methods & Instruments. Chap. I. H. C. HAMAKER : The oceanographic instruments of the accuracy of temperature observations. - Chap. II. J. HARDON : Determination of chlorine & oxygen content, 1941., 26 figs., 2 pl., viii, 56 pp. cloth f 6.- — 2. Soundings & bathymetric charts. - Chap. I : F. PINKE : Depth determinations, 1935., 1 folding map, 20 tables, 7 figs., iv., 70 pp., cloth f 6.30. - Chap. II, P. M. VAN RIEL : The bottom configuration in relation to flow of bottom water. 1934, 31 figs., separately : 2 depth charts in color, 16 detail charts & 4 folding maps, iv, 64 pp. cloth f 13.65. — Separately available : a. Gekleurde dieptekaart van den geheelen Indischen archipel, schaal 1:5 000 000 ; idem van het Oostelijk deel, schaal 1:2 500 000 en 16 detailkaarten met 8 blz. toelichting f 8.40.— b. Gekleurde dieptekaart van den geheelen Indischen archipel, schaal 1:5 000 000.— Chap. III. TH. VAN HUYSTEE : Echo soundings, 1944. vii, 134 pp. tables f 15.— 3. - L. LEK : Die Ergebnisse der Strom- und Serienmessungen auf den Ankerstationen des "Willibrord Snellius". Text figs., tables, etc., viii, 172 pp. cloth f 16.80. — 4. - S. W. VISSER : Surface observations, temperature, salinity, density, 1938, 21 figs., 4 maps, 34 tables, vi, 62 pp. cloth f. 6.30. — 5. - The bottom water. - Chap. I. P. M. VAN RIEL : Introductory remarks & oxygen content, 1943, 33 figs. 2 folding maps (1 col.), viii, 78 pp., f 8. — Stichting Grafisch Exportcentrum, Amsterdam, 1950.

4418. — **The Floor of the Ocean ; new light on old mysteries.** (Le Lit de l'Océan ; mystères anciens sous un jour nouveau).

By R. A. DALY. — 9×6 inches — x+178 pp. ill. diagr. & sketch-maps. — University of North Carolina Press, Chapel Hill, 1942 (Oxford University Press). — Review in *The Geographical Journal*, Vol. CIII, N° 3, London, March 1944. — pp. 125-128.

4419. — **Traité d'Océanographie Physique.** (Treatise on Physical Oceanography).

Par J. ROUCH. — I. - Sondages, in 8° — 256 pages, 100 figures. — Payot, Paris 1943. — Px. : 220 frs. — II. - L'eau de mer. — Payot, Paris, 1946., 349 pages, 150 fig. — Px. : 220 frs. — III. - Les mouvements de la mer. — Cours professés par l'auteur à l'Institut Océanographique de Paris. — Cf. *Geographical Review*, New York, Jan. 1948, page 165.

4420. — **Apparatus for the Determination aboard ship of the Salinity of Sea Water by the Electrical Conductivity Method.** (Appareil pour déterminer à bord la salinité de l'eau de mer par la méthode de conductibilité électrique).

By Frank WENNER, U.S. Bureau of Standards, Edward H. SMITH, U.S. Coast Guard, Floyd M. SOULE, Carnegie Institution of Washington. — Department of Commerce, Bureau of Standards, Washington, D. C.

GEODESY AND TRIANGULATION.
GÉODÉSIE ET TRIANGULATION

4421. — **La Géométrie des Sphéroïdes à l'usage des ingénieurs géographes.** -

Vol. I, Introduction à la Géométrie des Sphéroïdes. Géométrie à deux dimensions sur une surface. (Spheroid Geometry for Geographic Engineers. - Vol. I : Introduction to Spheroid Geometry. Two-dimensional geometry on a surface).

Par J. LABORDE. — 8×10 1/2, inches—326 pp. — 75 fig. — Publications Scientifiques de l'Institut Géographique National. Publication N° 1, Paris, 1944. — Prix : 300 Frs.

4422. — **Manual de Astronomia Geodésica.** (Geodetic Astronomy Manual. — Manuel d'Astronomie géodésique).
By Manuel PIRES de MATOS. — 16×23 cm., 160 pages. — Publicações do Sindicato Nacional dos Engenheiros Geógrafos, 2^o série, N^o 1, Lisboa, 1941.
4423. — **Plane and Geodetic Surveying for Engineers.** (Levés de plan et géodésiques pour les Ingénieurs). — Vols. I and II.
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