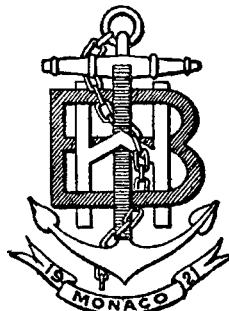


**THE
HYDROGRAPHIC REVIEW**

THE
HYDROGRAPHIC
REVIEW

VOL. IX

Nº 2



(Nº 18 OF THE SERIES)

PUBLISHED BY
THE

INTERNATIONAL HYDROGRAPHIC BUREAU

Quai de Plaisance

MONACO
(PRINCIPALITY)



NOVEMBER 1932

IMPRIMERIE F. ROBAUDY
24, RUE HOCHÉ, - CANNES

INTERNATIONAL HYDROGRAPHIC BUREAU

LIST OF STATES WHICH ARE MEMBERS OF THE BUREAU

ARGENTINE
BRAZIL
BRITISH EMPIRE
UNITED KINGDOM
AUSTRALIA
CHILE
CHINA
DENMARK
EGYPT
FRANCE
GERMANY
GREECE

ITALY
JAPAN
MONACO
NETHERLANDS
NORWAY
PERU
POLAND
PORTUGAL
SIAM
SPAIN
SWEDEN
UNITED STATES OF AMERICA

DIRECTING COMMITTEE

President: Rear-Admiral J. D. NARES, D. S. O., Royal British Navy (retired).

Directors { Ingénieur Hydrographe Général de réserve
P. DE VANSSAY DE BLAVOUS (Marine Française)
Rear-Admiral A. T. LONG, U. S. Navy (retired).

SECRETARY GENERAL

Commander G. B. SPICER-SIMSON, D. S. O., Royal British Navy (retired)

LIST OF CONTENTS

	Pages
Text and translation of the legends of the Original Chart of the world by Gerhard MERCATOR issued in 1569.....	7
The Adjustment of a Quadrilateral when one triangle has already been adjusted. (J. D. NARES).	46
Compensation of a polygon with a central station (P. DE VANSSAY).	48
The Determination of secondary meridians by the electric telegraph (F. M. GREEN).	61
Radio Acoustic sound ranging (G. T. RUDE).	71
Taut Wire measuring operations at sea (J. A. EDGELL).	74
Spelling of the Japanese language in Roman characters (T. MITUNOBU).	76
Nomographic determination of the inclination correction of soundings taken by means of a fish lead (plomb poisson) (M. A. GOUGENHEIM).	84
Measures for the settlement of reports of doubtful dangers in the Ocean (G. W. LITTLEHALES).	96
Mooring of ships in deep water for the direct measurement of currents (F. SPIESS).	106
The hydrography and cartography of a great seaport (E. C. SHANKLAND).	107
Refraction (J. D. NARES).	121
The International Scientific Expedition to the West Indies in 1932 (G. W. LITTLEHALES).	124
Report on Oceanic Survey in the western part of the North Pacific carried out by H.I.J.M.S. "Mansyu" from April 1925 to March 1928.....	128
The offset gravure zinc plate adopted by the Japanese Hydrographic Department for chart production and its advantages.....	132
Echo Sounding-XI.....	135
The HOLMES Master magnetic compass and Path indicator.	145
The WILLIS navigating machine.....	151
New developments in Air navigation (P. V. H. WEEMS).	152
General Repertory of tidal authorities and tidal records (<i>cont.</i>).....	160
List of instruments amongst those shown at the Oceanographic Exhibition of Seville — 1st May-15th June, 1929.....	219
The four-metre sounding tube of the "Snellius" Expedition (Ph. H. KUENEN).	225
An improved type of current meter (V. W. EKMAN).	228
Contribution to the history of the high sea tide recorder (H. RAUSCHELBACH).	231
Note concerning a direct reading electrical chronograph for accurate reading of very short intervals of time (R. DUBOIS and L. LABOUREUR).	234
An automatic recorder of signals from a rotating beacon transmitter (R. L. SMITH-ROSE).	236
The survey of Georges Bank (G. T. RUDE).	238
Progress on the Georges Bank Project	242
The determination of the compass error (G. T. RUDE).	245
Relating magnetophone to buoy anchor on R. A. R. buoy control hydrography.....	248
Determination of velocity of sound in sea water in Cape Cod Bay.....	251
Corrections applied to echo soundings	254
Cost of hydrography (F. S. BORDEN).	256

	<i>Pages</i>
FITZROY's hydrographic surveys (H. P. DOUGLAS).....	258
The voyage of the R. R. S. "Discovery-II", surveys and soundings (S. KEMP).....	260
Some recent geographical discoveries in the Antarctic region (Ch. LALLEMAND).....	264
Panama Tidal differences (R. Z. KIRKPATRICK)	266
Range of visibility by day and optical range by night (L. FOITZIK).....	269
Early history of Magnetism.....	275
Measurement of currents in the Gulf of Bothnia (E. PALMEN).....	276
Light signals in aviation and navigation (I. LANGMUIR and W. F. WESTENDORP).....	277
Development of lighthouses.....	278
Practical Hints to hydrographic surveyors :	
<i>A hint to topographers</i> (E. F. CHURCH).....	279
<i>Canvas current drag</i> (J. D. NARES).....	280
<i>Hydrographic signal with triangular cross-section</i> (H. A. PATON & W. F. DEANE).....	281
<i>The "banner" method of attaching a flag to a beacon</i> (J. D. NARES)	283
REVIEWS OF BOOKS :	
<i>Physics of the Earth : V. — Oceanography</i>	285
HYDROGRAPHIC BIBLIOGRAPHY :	
I. <i>Books of Reference</i>	287
II. <i>Documentary Bibliography</i>	289

The Directing Committee is not responsible for statements made or opinions expressed in articles or papers published in this Review, which are written by Authors who are not members of the Directing Committee or of the Personnel of the International Hydrographic Bureau.