

Allan Krill

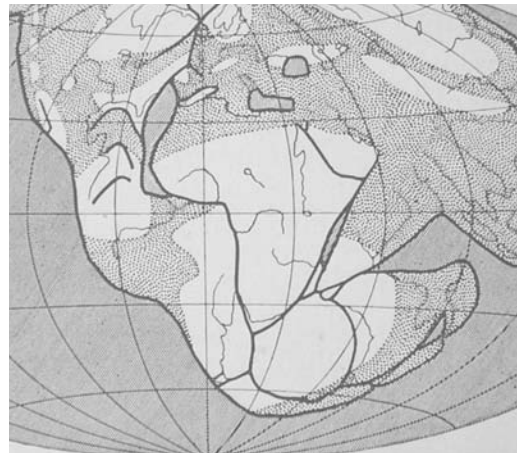
FIXISTS VS. MOBILISTS

IN THE GEOLOGY CONTEST OF THE CENTURY, 1844-1969

Defending Champion
Fixism 1924



Challenger
Mobilism 1924



Fixists

- 97 Lyell, Charles
- 13 Dana, James Dwight
- 52 Coleman, Arthur P.
- 57 Willis, Bailey
- 58 Schuchert, Charles
- 65 Lake, Philip
- 87 Longwell, Chester R.
- 89 Bucher, Walter
- 90 Dunbar, Carl O.
- 91 Jeffreys, Harold
- 2 Simpson, George Gaylord

Team Rosters

Mobilists

- 10 Hopkins, Evan
- 21 Pepper, John Henry
- 60 Taylor, Frank Bursley
- 70 Grabau, Amadeus W.
- 71 Daly, Reginald A.
- 73 Van der Gracht, V.W.
- 78 Du Toit, Alex.
- 79 Argand, Émile
- 80 Wegener, Alfred
- 90 Holmes, Arthur
- 91 Bailey, E. B.



Cover map (left), from Schuchert (1924).

Cover map (right), from Wegener (1924).

Cover group photo, geologists on an international field trip in Sweden, 1922.
(courtesy of the Department of Geology, NTNU, Norway.)

FIXISTS VS. MOBILISTS

**IN THE GEOLOGY CONTEST OF THE CENTURY,
1844-1969**

Allan Krill

Allan Krill
Trondheim, Norway

2011

Allan Krill
Brodtkorbs vei 4
7018 Trondheim Norway
fixists.com krill@ntnu.no

Copyright © 2009, 2011 Allan Krill
All rights reserved

ISBN 978-82-998389-1-7

Contents	Page
Preface	8
1. Introduction	9
Fixists and Mobilists, Creationists and Evolutionists	9
Introductory Geology in an Eggshell	9
Radioactive Heating and Convective Churning in the Earth's Mantle	11
The Geologic Time Periods and Tricks to Quickly Learn Them	12
Alfred Wegener and the History of Plate Tectonics	14
Paleomagnetic Stripes and the Sudden Acceptance of Mobilism	15
2. Hypotheses of Neptunian Continental Drift	18
Charles Lyell's Horizontal "Transfer" of Continents (1837)	18
Evan Hopkins' Proof of Northward Shifting of the Continents (1844)	21
A Mechanism for Global Shift of Crust	24
"We Have No Need to Invent Strange Hypotheses"	28
The Snider-fit of Continents Bordering the Atlantic Ocean (1858)	32
John Henry Pepper's Hypothesis of Neptunian Continental Drift (1861)	36
"First they ignore you. Then they ridicule you."	45
3. Former Continental Connections	46
"Where th' Atlantic Rolls, Wide Continents have Bloom'd"	46
James Dwight Dana's Creation-Origin of Continents and Oceans (1863)	50
Hot Climate of the Arctic's Carboniferous Rocks	55
Glacial Ice Sheets over Subtropical Lowlands (1856 / 1903)	57
The Problem of Sinkable Land Bridges (1910)	61
Charles Schuchert's <i>Historical Geology</i> (1915)	66
4. Alfred Wegener's Displacement Theory	74
Ocean Basin Formation Without Sinking Continents (1912)	74
Wegener's Origin of the Mid-Atlantic Ridge	79
Osmond Fisher's Sub-Oceanic Convection Currents (1889)	85
Wegener's First Geology Book (1915)	89
Wegener's Second and Third Editions (1920, 1922)	93
Complete Text of Chapter 1 of Wegener's English Edition (1924)	95
Complete List of Contents of Wegener's English Edition (1924)	101
Published Reactions to Wegener's Book	104
Mechanisms Incapable of Moving Continents (or Scientists)	106
Wegener's Use for Land-Bridge Theory	107

5. Coping with Ancient Climates	110
New Insight on the Permo-Carboniferous Ice of South Africa (1924)	110
Arthur P. Coleman on Ancient Ice Ages (1926)	114
Köppen & Wegener's <i>Die Klimate der Geologischen Vorzeit</i> (1924)	119
Brooks' <i>Climate Through the Ages</i> (1926)	126
6. Three Books that Boosted the Displacement Theory	127
Émile Argand's <i>La Tectonique de l'Asie</i> (1924)	127
Reginald A. Daly's <i>Our Mobile Earth</i> (1926)	130
Alex Du Toit's <i>Geological Comparison</i> (1927)	134
Schuchert's Critical Book Review (1928)	140
7. Theory of Continental Drift Labeled and Libeled	143
Abstracts of all 15 Papers in the AAPG Symposium Volume (1928)	144
Excerpts and Comments on the Various Papers	150
8. Wegener's Hypothesis Frozen Out of North American Science	165
Arthur Holmes' Solution to the Mechanism Problem (1927, 1931)	165
Wegener's Recognition of the Convection-Current Mechanism (1929)	168
Comments on Alfred Wegener's Accomplishments and Shortcomings	169
Mountain-Building Forces – "One of the Great Mysteries of Science" (1929)	172
Bailey Willis's Textbook <i>Geological Structures</i> (1923, 1929, 1934)	176
Schuchert and Willis Walk on Water (1932)	179
Schuchert & Dunbar's <i>Historical Geology</i> (1933)	186
The Mid-Atlantic Ridge as a Belt of Earthquakes and Volcanoes (1934)	195
Alex Du Toit's Second Book on Mobilism: <i>Our Wandering Continents</i> (1937)	196
Discussions of Du Toit's Book in the <i>American Journal of Science</i> (1943)	198
Willis Dashes Off <i>Ein Märchen</i> (A German Fairy Tale) (1944)	203
9. Continental Drift in English-Language Geology Textbooks	205
Lake & Rastall's <i>Textbook of Geology</i> (1927, 1941)	205
Samuel Shand's <i>Geology Without Jargon</i> (1933)	206
E. B. Bailey's <i>Introduction to Geology / General Geology</i> (1939)	209
Arthur Holmes' Final Chapter in <i>Principles of Physical Geology</i> (1944)	212
Amadeus Grabau, the Continentally Displaced Professor (1913, 1936, 1940)	228
Wiley's <i>Textbook of Geology</i> , Grounding Young Minds from 1915 to 1969	241
Longwell et al.'s <i>Physical Geology</i> (1939)	243
Carl Dunbar's "Device to Hide Critical Areas" (1949)	245
Revised Editions of Longwell's <i>Physical Geology</i> (1955, 1962, 1969)	249
The Last Edition of <i>Historical Geology</i> (1969)	257
"Art, empire, earth itself, to change are doom'd"	258

10. Summary in the Form of Historical Citations	260
11. Closing Statements	271
Other Histories - Recommended Reading	271
A List of 130 Fixists and Mobilists with Publication Dates	271
The Ridicule of Continental Drift	274
The Beginning and End of this Geological Contest	275
A Concerted Effort to Hold Back the Wegenerian Revolution	276
American Reactions to Non-American Revolutions	278
The North American Plight	279
Hard Play and Loyalty in Sport and Science	282
Fixists vs. Mobilists in a Football Contest of Nonsensery	282
12. References	287
13. List of Scientists and Authors Mentioned in This Book	296
14. About the Author	299