

**SL 95 handles
them better.
Prove it to
yourself...**



Here's how an umbrella spindle handles a stack of records. One area support—three retractable metal "fingers" at the center of the record.

It's good... but now try this.

Here's how the Garrard SL 95 handles a stack of records.

Two point support—at center and edge. Recognized as the gentlest, surest and safest mechanism on the market.

It's an exclusive Garrard feature.



For complimentary Comparator Guide, write:
Garrard, Westbury, N.Y. 11590.

Garrard
World's Finest

British Industries Co., a division of Avnet, Inc.

VOL. LXXVIII, No. 7

AUGUST-SEPTEMBER 1969

Natural History

JOURNAL OF THE AMERICAN MUSEUM OF NATURAL HISTORY

- 8 **TRAILING LEWIS AND CLARK** Belva Jensen
Biologists and students follow the old inland water route to the West and compare ecologic notes with Captains Meriwether Lewis and William Clark.
- 26 **POLYNESIAN SURFING** Ben R. Finney and James D. Houston
After a missionary-induced depression, the magnificent Hawaiian tradition of cavorting in the surf has re-emerged—and then some.
- 36 **THE GECKO GRIP** Joseph F. Gennaro, Jr.
Electron microscopy plumbs the secret of the lizard's nimble disregard of gravity.
- 46 **THE FLORENCE FLOODS** Richard M. Klein
Over the centuries incompetence, ignorance, and error have made the civilized land of Leonardo a flood-prone bathtub.
- 56 **RAREST BOOBY** Bryan Nelson
Abbott's Booby, an obscure and enigmatic seabird, is closely observed for the first time in its Christmas Island retreat.
- COVER: The best waves in Hawaii "rise steeply, but break with a regular curl and leave an open shoulder in front of the moving break..."*
- 4 **THE AUTHORS**
- 6 **IN AND OUT OF THE FIELD** Alfred Meyer
- 16 **A NATURALIST AT LARGE** Richard L. Means
- 44 **SKY REPORTER** John P. Wiley, Jr.
- 45 **CELESTIAL EVENTS** Thomas D. Nicholson
- 70 **BOOKS IN REVIEW**
- 75 **SUGGESTED ADDITIONAL READING**

The American Museum of Natural History
Gardner D. Stout, President

Thomas D. Nicholson, Director

Alfred Meyer, Editor Natural History
William Gilman, Jack Hope, Senior Editors Robert E. Williamson, Managing Editor
Avis Kniffin, John P. Wiley, Jr., Associate Editors Thomas Page, Art Editor
Toni Gerber, Asst. Copy Editor Florence Edelstein, Copy Editor
Diantha W. Chrystal, Information Services Carol Breslin, Reviews Editor
Ernestine Weindorf, Nancy Larson, Karen Manulis, Staff Assistants Joseph Maynard, Production

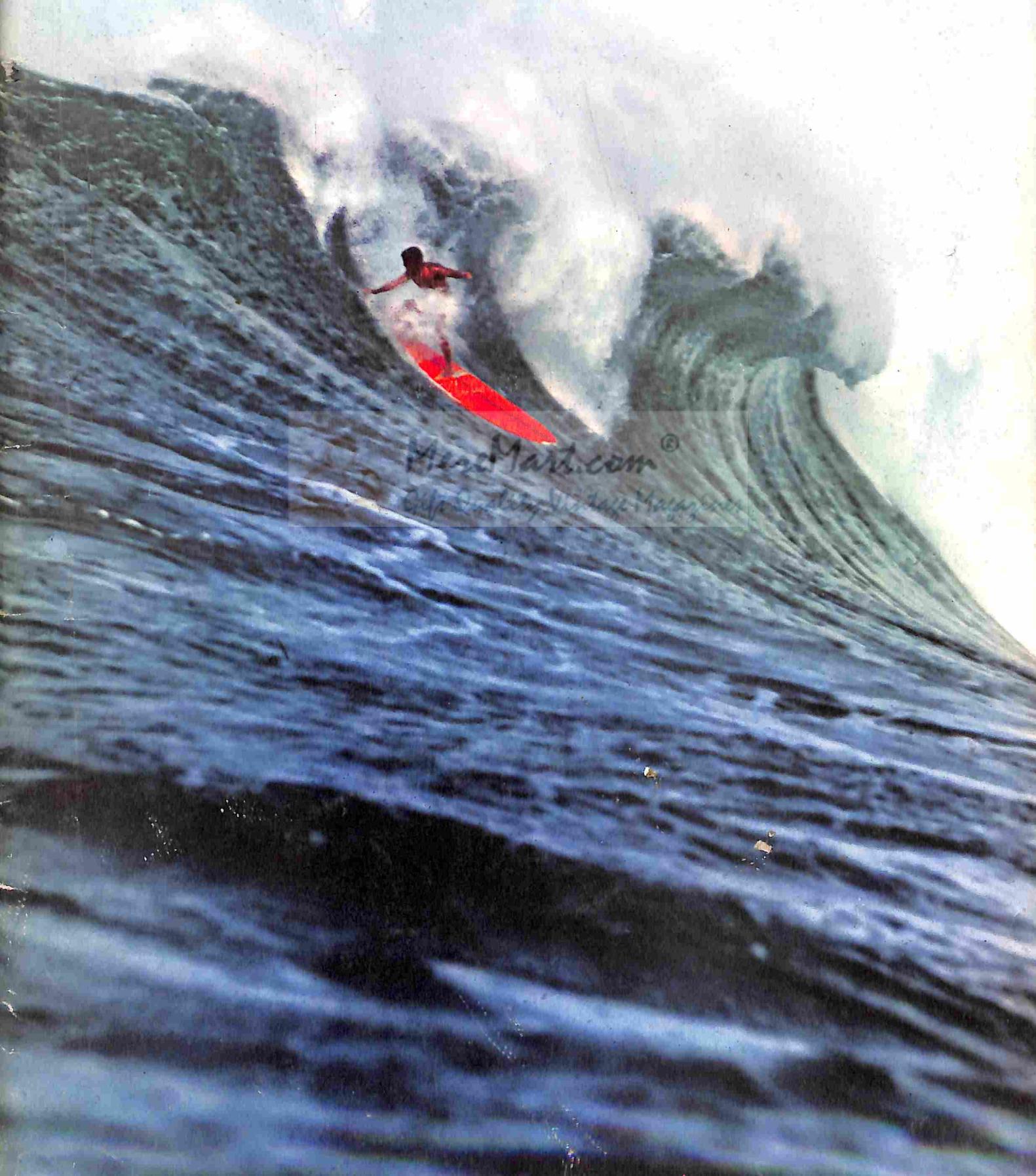
Editorial Advisers: Gerard Piel, Thomas D. Nicholson, Dean Amadon,
James W. Atz, Stanley A. Freed, Gordon R. Reekie, Evelyn Shaw

Harvey Oshinsky, Advertising Director
Harry F. Decker, Sales Dinah Lowell, Traffic
Anne Keating, Promotion Director Maureen Fitzgerald, Asst.
Joseph Saulina, Circulation Manager

Publication Office: The American Museum of Natural History, Central Park West at 79th Street, New York, N.Y. 10024. Published monthly, October through May; bimonthly June to September. Subscription: \$7.00 a year. In Canada and all other countries: \$7.50 a year. Single copies \$1.00. Second-class postage paid at New York, N.Y., and at additional offices. Copyright © 1969 by The American Museum of Natural History. No part of this periodical may be reproduced without the written consent of NATURAL HISTORY. Unsolicited manuscripts and illustrations submitted to the editorial office will be handled with care, but we cannot assume responsibility for their safety. The opinions expressed by authors are their own and do not necessarily reflect the policy of The American Museum. NATURAL HISTORY is indexed in Reader's Guide to Periodical Literature.

AUGUST-SEPTEMBER 1969 • \$1.00

Natural History



PhotoMart.com®