

FOUNDED 1872



VOL. 153: NO. 6

POPULAR SCIENCE

MECHANICS AND HANDICRAFT

Monthly

MANAGING EDITORS: Fred O. Newman, Volta Torrey.

EDITOR: Perry Githens

ASSISTANT MANAGING EDITORS: Hartley E. Howe, Frank Rowsome, Jr.

ART EDITOR: Howard C. Jensen.

ASSOCIATE EDITORS: Howard Allaway, Alden P. Armagnac, Devon Francis, Robert Gorman, Sheldon Gallagher, Herbert Johansen, Martin Mann, Denis Sneir, Robert P. Stevenson.

STAFF PHOTOGRAPHERS: W. W. Morris (Chief), Hubert Luckett, Orlando Guerra (Darkroom).

WESTERN EDITOR: Andrew R. Boone (Los Angeles).

PUBLISHER: Godfrey Hammond

ART DIRECTOR: Harry Samuels. ART ASSOCIATES: Herbert Anthony, Eric Karminski, Jr., Richard Meyer, Frances Cooper (Production).

EDITORIAL ASSISTANTS: Mae G. Dyer (Asst. to the Editor), Julia Charnif, Beatrice Eldridge, Carol Ennis, Charlotte Korch, Georgette Sparks, Ruth Westphal.

WASHINGTON CORRESPONDENT: John F. Loosbrock

TABLE OF CONTENTS FOR DECEMBER, 1948

Cover Painting by Ray Quigley

Science News

Magic Carpet?	97
New Strong, Light Metal Is Extracted	105
Danger . . . Radiation	140
March of Science	154

Science at Work

Five-Million-Pound Squeeze	108
Wheel Flips Tin Plate	115
Mask "Breathes" Oxygen	127
Waste Makes Power	128
Springs in Crate Spare Jets Bumps	130
Strong Engine Is Light	131
Army Tests Glass Pipe	164
Rig Hauls Water Up Hill	239

PS Features

How the New Toys Work	98
Mechanical Muscles Are Stronger	120
Pocket-Size Home for Family of Four	132
Blower Makes the Snow Fly	138
From Planes to Schools	151
New Stores Offer Metered Air Cooling	152
How to Get Along When Power Goes Off	156
Bell Making Teams Art with Science	166
Taking Apart a Glass of Milk	234

Aviation

How Jet Jockeys Are Made	109
Smashing Eggs to Save Heads	116
What's New in Aviation	134

Ⓢ This mark in text indicates Trade Name.

Popular Science Monthly is published monthly at 353 Fourth Avenue, New York 10, N. Y., by Popular Science Publishing Co., Inc., Godfrey Hammond, President and Treasurer; R. C. Wilson, Raymond J. Brown, Stephen P. Glennon, Vice-Presidents; F. W. Briggs, Secretary. Entered as second-class matter Dec. 28, 1918, at the Post Office in New York, N. Y., under the act of March 3, 1879; additional entry as second-class matter at Dayton, Ohio, at the Post Office in New York, N. Y., under the act of March 3, 1879; Copyright, 1948, by Popular Science Publishing Co., Inc. All rights reserved in the United States, Great Britain, and in all countries participating in the International Copyright Convention and Pan-American Copyright Convention. Yearly subscriptions to United States, its possessions and Canada, \$3.00 (2 years, \$5.50; 3 years, \$7.50); foreign countries \$1 per year extra. Subscribers must notify us of change of address four weeks in advance of the next publication date. Be sure to give both old and new addresses, including zone numbers. Vol. 153: No. 6.

2 POPULAR SCIENCE

YOUR IDEAS ARE WORTH \$100000 TO SOUTHERN INDUSTRIES, INC.

Manufacturers of WOUNDWOOD



WOUNDWOOD is domestic and imported fine wood veneer, wound to form a laminated tube. It takes a beautiful finish, and lends itself readily to the manufacture of many useful and beautiful articles to grace the finest homes. It can be manufactured to a wide variety of specifications, and has its place in the field of industry, as well as in the home workshop. WOUNDWOOD can be easily worked with the simplest of tools.

LOOK AT THESE PRIZES!

1st Prize	2nd Prize	3rd Prize	12 Prizes of
\$500.00	\$150.00	\$50.00	\$25.00

- Each contestant must submit a photograph of his entry, with his name and address clearly printed on the back, prior to 1 April, 1949. Photographs will not be returned.
- A written description of the entry and its operation, not to exceed 1,000 words, is to accompany the photograph at the time of its entry.
- A major portion of each entry must be made of WOUNDWOOD, or any other wooden tubing.
- All models and specifications are to remain the property of the contestant, but it is hereby understood that Southern Industries, Inc., shall have the right to select any given design entered for manufacture and sale on a 6% royalty basis, if the entry is made using WOUNDWOOD.
- Complete detailed information on the contest rules and royalty agreement will be furnished with each WOUNDWOOD purchase.

ORDER FROM YOUR LOCAL HOBBY DEALER

or
Clip This Coupon and Mail Today

- Contest Editor
Southern Industries of Maryland, Inc.
Pikesville, Baltimore 8, Maryland
- ☐ Please send me kits of Mahogany WOUNDWOOD at \$2.98 prepaid each. I enclose check or money order.
- ☐ Please send me kits of Gum WOUNDWOOD at \$2.49 prepaid each. I enclose check or money order.
- ☐ Please send me kits of Poplar WOUNDWOOD at \$2.49 prepaid each. I enclose check or money order.
- ☐ Send above C.O.D. I agree to pay postage and C.O.D. charges.

EACH WOUNDWOOD KIT CONTAINS

three 1-foot lengths in the following inside diameters: 3", 3½", 4". Sufficient to make from three to a dozen items, such as: jewelry and cigarette boxes, humidors, lamps, umbrella stands, pen trays, and many others that will be immediately suggested to you as soon as you see this remarkable product.

- Beautiful Domestic Gum or Poplar that will take any finish \$2.49 prepaid
- Genuine Ribbon-striped African Mahogany (which should be finished natural) \$2.98 prepaid
- C.O.D.—Postage and C.O.D. charges collect.

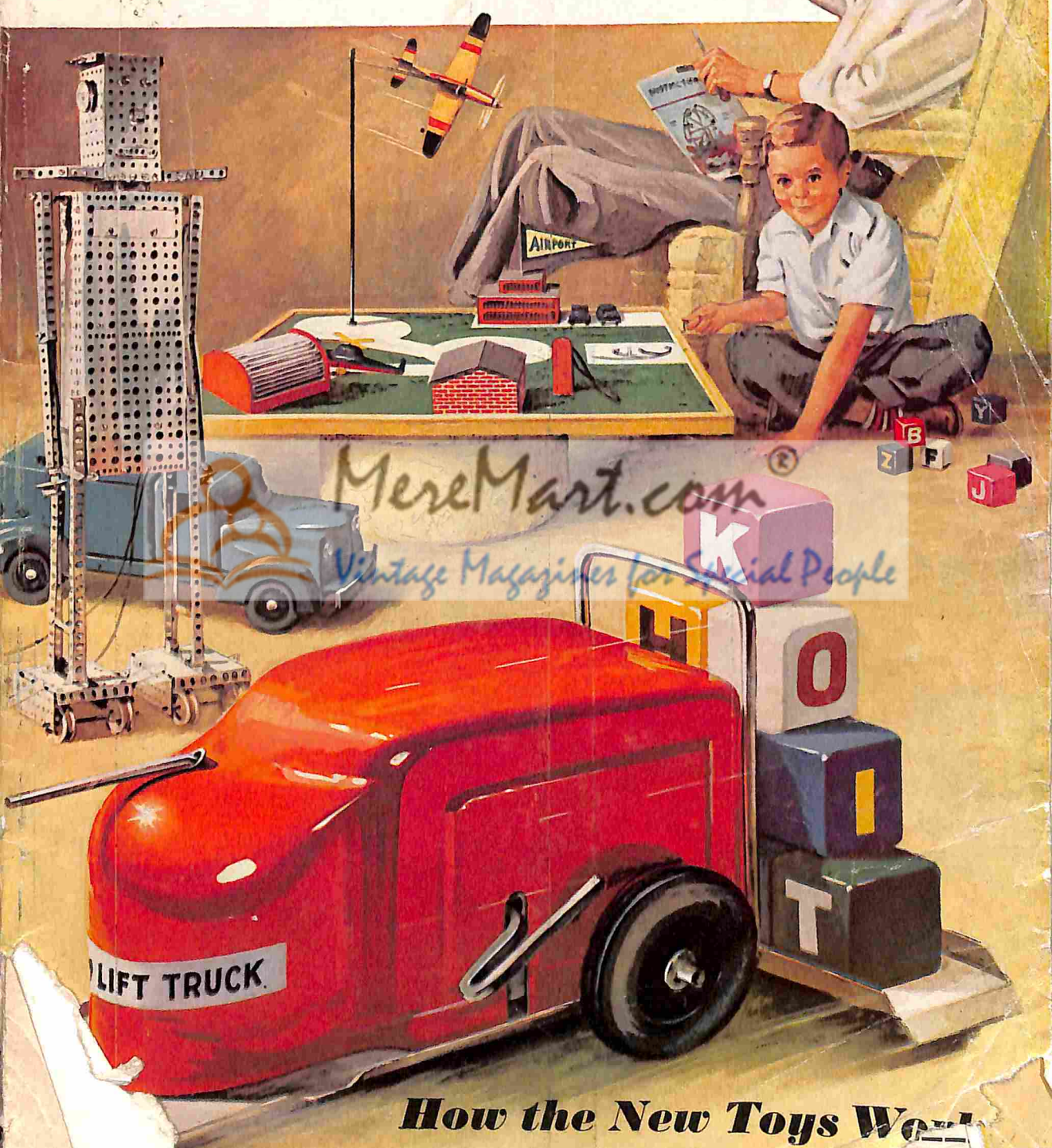
SOUTHERN INDUSTRIES, INC.
PIKESVILLE, BALTIMORE 8, MD.

POPULAR SCIENCE

Dec. 1948 •

25¢

Monthly



MereMart.com

Vintage Magazines for Special People

How the New Toys Work

DECEMBER 1948