

PERRY GITHENS, EDITOR Fred O. Newman, Volta Torrey, MANAGING EDITORS Harry Walton, MECHANICS & HANDICRAFT EDITOR

Howard C. Jensen, ART EDITOR Hartley E. Howe, Frank Rowsome, Jr., ASSISTANT MANAGING EDITORS

ASSOCIATE EDITORS: Alden P. Armagnac, Devon Francis, Richard Giovine, Robert Gorman, Sheldon M. Gallager, Herbert O. Johansen, Martin Mann, Denis Sneigr,

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

EDITORIAL ASSISTANTS: Julia C. Bove, Carol Ennis, Doris R. Gaines, Rita K. Gilbert, Rosemary C. Knorr, Georgette Sparks, Harriet Trowbridge, Ruth Westphal. STAFF PHOTOGRAPHERS: W. W. Morris (Chief), Hubert Luckett. Orlando Guerra (Darkroom). WESTERN EDITOR: Andrew R. Boone (Los Angeles). WASHINGTON EDITOR: John F. Loosbrock.

Mechanics and Handicraft

The Cover:

One look at the pilot of a jet interceptor and PS

One took at the pilot of a fet interceptor and r photographer Morris loaded his camera for color. I Flew with Our Jet Defenders...... 98

These jet jockeys are on a 24-hour alert to intercept any enemy who might try a sneak attack.

Latest signal equipment connects doughfoot with tankmen, artillerymen-even Washington.

Atom Lab Gets Books by Wire..... 124 New facsimile system delivers printed material direct from library to lab eight miles away.

Chrysler Gets First Power Steering 126 Even Wilbur Shaw was amazed at the ease with which it handled the new 1951 Chrysler.

Mechanical Arm Turns Pages.....138 Chin-operated switch that energizes automatic page-flipper helps handicapped read books.

What Makes Good Sunglasses?....141 There's more that goes into making a good pair than meets the eye looking through them.

Godfrey Hammond, PUBLISHER · Stephen P. Clennon, ADVERTISING DIRECTOR Godfrey Hammond, PUBLISHER · Stephen P. Clennon, ADVERTISING DIRECTOR EDITORIAL OFFICES: 353 Fourth Avenue, New York EDITORIAL OFFICES: 353 Fourth Avenue, New York 10, N. Y. Manuscripts and illustrations submitted at regular rates should be so marked, addressed to "The Editors" and accompanied by stamped, self-addressed envelope. Popular Science Monthly exercises all Possible care but assumes no responsibility for unsolicited material.

Features for April, 1951

Zirconium Goes to Work......156 Metal that cost \$500 a pound five years ago now Metal that cost \$500 a pound nee years ago now produced by ton for atomic piles and other uses.

Overhaul them now and relax this summer. Overhaul them now und read uns summ one handy with tools can do a good job

Saboteurs Are in Your Radiator. How dangerous are these villains? You can find out by performing these simple experiments.

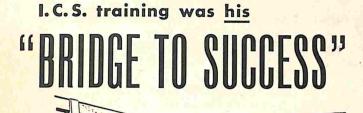
Why Call a TV Serviceman?

bon't let the mazelike innards of a video set scare yourself lips. Detailed plans tell you how to build this thumb-nail, engine-driven racer in about 10 hours.

Talariner

Floating Motor Powers Rubber Raft......106

ADVERTISING OFFICES: AVenue: crucaco-360 North Michigan Avenue: DeTROIT de Sales Building; CLEVELAND-328 (ORE.) -90% Terranda al. ANGELES-Granada Building, Citizens Building; LOS Interest Brown are but assumes no response. Organization of seven and the seven and the seven association of the seven and the seven association of the seven association o



HAYDEN M. HARGETT took his first I. C. S. course while he was still a student in high school.

He is now County Engineer of Franklin County, Alabama. Last year Mr. Hargett designed 27 homes, two theaters, a bus station and three bridges. He supervised fifty miles highway construction and the paving of one hundred thousand square yards of city streets.

Mr. Hargett recently enrolled for another I.C.S. course

Listen to what he has to say about I. C. S. training: "It's more practical-more flexible than any training I've had. I' can't speak highly enough of my I. C. S. training."

Mr. Hargett says his first I. C. S. course was his "bridge to success." "There might not have been much of a career," he said, "if it hadn't been for that first I. C. S. course."

1. C. S. training can be your "bridge to success." Mail the coupon today!

APPROVED INTERNATIONAL CORRESPONDENCE SCHOOLS under the G.I. BILL BOX 7675-M. SCRANTON 9, PENNA. Without cost or obligation, please send me full particulars about the course BEFORE which I have marked X: Which I have marked X: Industrial Metalurgy Machine Shop Mech. Dratting Mechanical Engineering Mold-Loft Work Patternmaking—Wood, Metal Reading Shop Blueprints Sheet-Metal Dratting Sheit-Metal Bratting ion, please send me full particulars about mecouse beronce ng and Structural Engineering rese Surveying and Mapping Communications Courses Plumbing Electronics Steam Fitting Practical Telephony ses Radio Servicing Television al Telegraph Engineering al Electrical Courses a Steal Electrical Courses Air Conditioning and Plumbing Courses Textile Courses Cotton Manufacturing Loom Fixing Rayon Weaving Textile Designing Woolen Manufacturing Air Conditioning Heating Refrigeration Chemical Courses Chemical Engineering Chemistry, Analytical Chemistry, Industrial Chemistry, Mfg. Iron & Steel Petroleum Refining Petroleum Refining Civil Engineering, Architec-tural and Mining Courses Architecture Business and Academic Courses Sieet-Metal Worker Ship Drafting Tool Designing Welding-Gas and Electric Railroad Courses Air Brake Accounting □ Advertising Electrical Drafting Electrical Engineering Electric Light and Power Lighting Technician Bookkeen Plastics Business Administration Bus. Correspondence Bus. Law Practical Electrician Internal Combustion Engines Courses Auto Technician Commercial Art Architecture Architectural Drafting Locomotive Engineer Locomotive Fireman Locomotive Machinist Railroad Section Foreman First Year College Bridge and Building Foreman Building Estimating Federal Tax Aviation Foremanshi Foremanship ______ French Good English _____ High School Higher Mathematics ______ Illustration Industrial Supervision Motor Traffic _____ Postal Civil Service Retailing _____ Retail Bus. Management Salesmanship _____ Secretarial Building Estimating Guid Engineering Coal Mining Contracting and Building Highway Engineering Lumber Dealer Reading Structural Blueprints Sanitary Engineering Structural Drafting Diesel Engines Diesel Engines Diesel Engines Mechanical Courses Aeronautical Engineer(s, Jr, Aircraft Drafting Flight Engineer Forging Diduction of Metals Inductrial Engineeria Stationary Eng'r'g Courses D Boilermaki Boilermaking Combustion Engineering Engine Running Marine Engineering □ Engine Running □ Sign Lettering □ Sign Lettering □ Sign Lettering □ Spanish □ Power Plant Engr'g □ Steam Engr. □ Traffic Management □ Industrial Engineering □ Industrial Instrumentatio Stenography Home Address City State Working Hours Present Position Employed by Length of Service Enrollment under G.I. Bill approved for World War II Veterans. Special tuition rates to members of the Armed Forces. n World War II Canadian residents send coupon to International Correspondence Schools Canadian, Ltd., Montreal, Canada.

APRIL 1951 3

POPULAR SCIENCE MONTHLY

MECHANICS AND HANDICRAFT

teseMart.com®

Vintage Magazines (on Special People



First Aid for Your TV-p. 209

"I Flew With Our Jet Defenders"

25¢ April, 1951

PAGE 98