

15¢

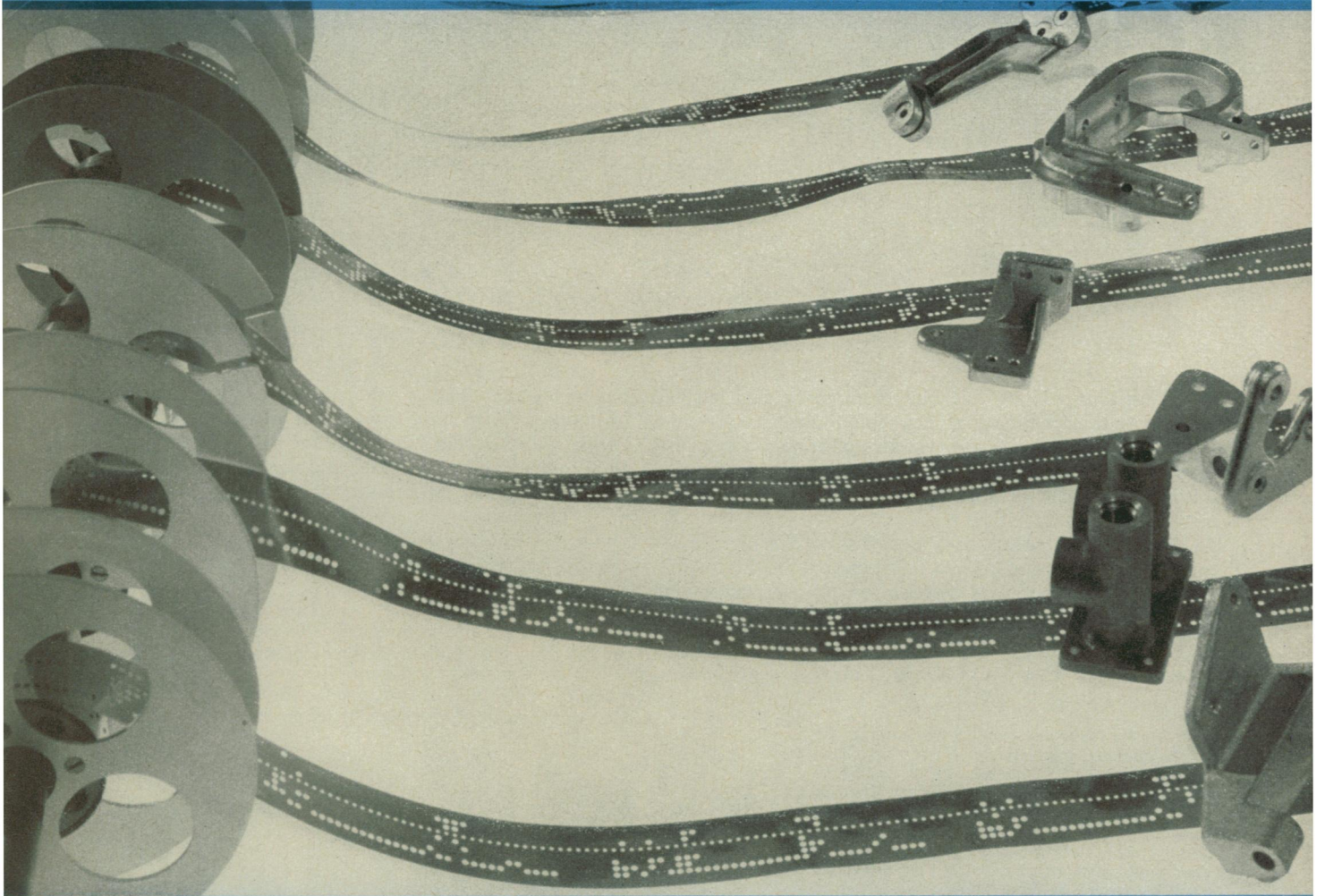
\$5.50 A YEAR

March 22, 1958

VOL. 73 NO. 12 PAGES 177-192

# SCIENCE NEWS LETTER

THE WEEKLY SUMMARY OF CURRENT SCIENCE



Ribbons for Automation

See Page 182

A SCIENCE SERVICE PUBLICATION

A SCIENCE BOOK CLUB **DOUBLE GIFT** OFFER

The fascinating story  
of man's greatest exploration...

Willy Ley's  
**ROCKETS, MISSILES & SPACE TRAVEL**  
**AND THE CONQUEST OF SPACE**

Illustrated by Chesley Bonestell  
COMBINED LIST PRICE  
\$11.70



LIST PRICE \$4.95  
48 illustrations  
16 in full color

LIST PRICE \$6.75  
31 photographs

ACCEPT THESE **2** REMARKABLE WORKS AS  
A FREE GIFT ON JOINING THE SCIENCE BOOK CLUB

The launching of satellites into outer space has hurtled mankind into the cosmic age most people thought they would never live to see. Now, as the wonders of science are transforming the world we inhabit, more and more thinking people find it important to learn about the swiftly changing scientific scene.

In **ROCKETS, MISSILES & SPACE TRAVEL**, Willy Ley — pioneer in rocket research since 1924 and one of the world's leading authorities on space travel—provides a dramatic and

highly readable background on rocketry and interplanetary exploration (*with some daring predictions*) in what *The Scientific Monthly* calls "the *definitive* book about the subject." In **THE CONQUEST OF SPACE**, Mr. Ley has collaborated with Chesley Bonestell, astronomer and artist, to portray the universe future generations will visit—with striking and astronomically accurate paintings of what they may expect to see on the ice-caps of Mars, the mountains of the moon, the molten continents of Mercury. . . .

**Science Book Club, Inc.**

63 Fourth Avenue, New York 3, N. Y.

Please enroll me as a member and send me the three volumes I have checked — two as my Gift Books on joining, and the third as my first Selection, all at the Introductory Member's Price of \$3.89 (plus postage). As a member, I need take as few as 3 more Selections during the next 12 months, always at reduced Member's Prices; and each time I start a new series of four Selections I will receive a Free Bonus Book.

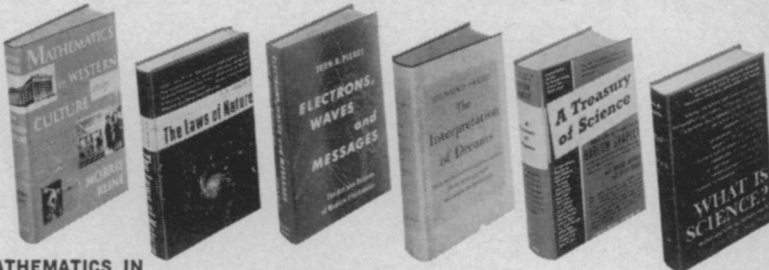
- |   |   |
|---|---|
| <input type="checkbox"/> Rockets, Missiles & Space Travel | <input type="checkbox"/> Electrons, Waves & Messages  |
| <input type="checkbox"/> The Conquest of Space            | <input type="checkbox"/> The Interpretation of Dreams |
| <input type="checkbox"/> Mathematics in Western Culture   | <input type="checkbox"/> A Treasury of Science        |
| <input type="checkbox"/> The Laws of Nature               | <input type="checkbox"/> What is Science?             |

Name .....

Address .....

City..... Zone..... State.....

Accept these two remarkable works as your *free gifts on joining*, and choose a *third* book from the other fine volumes shown *below* as your first Selection. For these — or any other three works of your choice — total list value up to \$21.75—you are billed only \$3.89. Thereafter, as a member, you need take as few as 3 more selections at reduced Member's Prices during the next 12 months.



**MATHEMATICS IN WESTERN CULTURE**  
By Morris Kline. "A genuine contribution to our understanding of the nature of mathematics."  
—*Scientific American*  
LIST PRICE \$7.50

**THE LAWS OF NATURE**  
By R. E. Peierls. "Remarkable insight into the logic and unity of physics . . . A splendid book."  
*Scientific American*.  
LIST PRICE \$4.50

**ELECTRONS, WAVES AND MESSAGES**  
By John R. Pierce. The art and science of modern electronics and electronic communication.  
LIST PRICE \$5.00

**THE INTERPRETATION OF DREAMS**  
By Sigmund Freud. The great work which is the foundation of all modern psychoanalytic science.  
LIST PRICE \$7.50

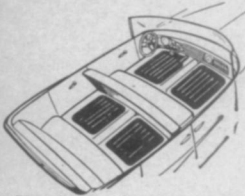
**A TREASURY OF SCIENCE**  
Ed. by Harlow Shapley and others. 724-page panorama of scientific development by 75 leading scientists.  
LIST PRICE \$5.95

**WHAT IS SCIENCE?**  
Ed. by James R. Newman. The nature of science and the scientific outlook, by 12 outstanding thinkers.  
LIST PRICE \$5.95

Mail this Coupon for Your **2** Free Books on Joining

# Special 1 Bargains-Save Up to 50%

Never Before Available!

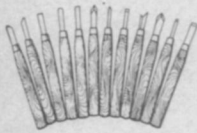


Set of 4  
Lifetime  
Guaranteed  
Washable  
CAR MATS

Fits Buick, Cadillac, Chevrolet, Chrysler, DeSoto, Ford, Dodge, Hudson, Lincoln, Mercury, Packard, Pontiac, Nash, Oldsmobile, Studebaker plus all Sports and Foreign cars.

Now, due to a revolutionary development of binding heavy black ribbed Vinyl with rubberized jute, you can have real protection for the front and rear carpets of your car. These are "live" mats, soft underfoot and completely washable. Will not rot, crack, chip or mildew—resists all stains! You must pay up to \$9.95 for ordinary reclaimed rubber car mats, but you can now get a complete set of 4 mats, to fit every car made, for only \$5.95 plus 50¢ pp. & hdlg. Fully guaranteed.

Surgical Steel — Hand Ground



Set of 12  
CARVING  
KNIVES  
\$2.00  
ppd.

The sharpest, keenest ground, surgical steel blades we have ever seen—sharp enough to split a human hair in two! 12 different shapes and edges can do every job of wood carving, model making, inlaid cutting, sculpting and whittling imaginable. Each blade has a 4 1/2" long hardwood handle for easy gripping. A heavy duty blade is firmly attached by means of a brass ferrule to insure long, continued rugged use. Each surgical steel blade precision hand ground to easily and quickly notch and cut any shape you wish. A sensational all-purpose set, well worth \$5.95.

Lifetime Grit HANDY SANDER

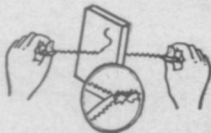


Tungsten Carbide  
Grit Brazed on Steel

New lifetime abrasive miracle tungsten carbide grits brazed on steel gives a diamond-like cutting hardness. Perfectly finishes wood, plaster, plastic or composition materials. Ideal for dry wall joints, all types of wallboard. Never needs replacing—always stays sharp! Sands twice as fast as sandpaper—does not tear like sandpaper! Easily cleaned. Complete kit includes easy-to-hold birch sanding block, one coarse grit shoe and one fine grit shoe. Lifetime guaranteed.

\$2.00  
plus 20¢ pp.  
& hdlg.

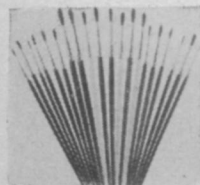
Flexible Steel  
POCKET  
SAW  
Cuts in  
Every Direction



Made of super quality silicon steel, the exclusive interwoven blades cut quickly, easily yet never clog. Ideal for hobbyists, scouts, outdoor sportsmen, gardeners, farmers, campers, etc. to cut wood, formica, rubber, cork plastics, ice, non-ferrous metals and most anything else . . . in any direction! Cutting teeth guaranteed not to wear. Rust resistant. Easily rolls up for carrying in plastic pocket-nac. Weighs less than a pack of cigarettes. Imported from France; used by French Military and British Commandos.

SPORTSMAN—20"—.063 dia.—.98¢ ppd.  
WOODSMAN—20"—.095 dia.—\$1.49 ppd.  
COMMANDO—35"—.095 dia.—\$1.98 ppd.

20 CAMEL HAIR  
Quality BRUSHES



Close-Out—  
Only 5¢ each

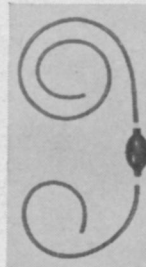
Precision crafted in West Germany. Perfect for artists, touching up around house, cleaning electrical and optical instruments and guns. Sizes range from fine #1 to full #5. Select camel hair firmly set in metal grip to give years of use. Worth many

dollars, but ALL 20 years for only

\$1.00  
ppd.

AUTOMATIC SIPHON PUMP

Now-siphon any liquid automatically, safely, without putting tube to mouth! Squeeze bulb of this all new type siphon, liquid starts to flow immediately! Transparent valves let you see liquid flowing! Siphons, pumps gasoline, water, any liquid. Even acids, corrosives! For cars, boats, power mowers; campers, plumbers, doctors, chemists, factories!



Acid resistant. Over 7 ft. long overall! Sold with a money back guarantee. Price \$1.98 postpaid.

Find Any Little Item . . . In Seconds!

JIFFY  
UTILITY  
CABINETS

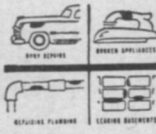


Stop losing or misplacing small items . . . keep them ever handy, visible, clean and safe in Jiffy Cabinets. Serves as handy storage for small things in kitchen, workshop, office, den, garage, sewing or hobby room. Drawers 5 3/4" x 2 3/8" x 1 1/4" are made of crystal clear styrene plastic with deep-in dividers to make 3 compartments plus index labels to fit slots in drawer fronts. Stopper back permits drawer to hang open without spilling. Dust-proof, partitioned, welded solid metal frame, rubber feet, frame-punched for easy hanging. In red or grey.

16 Drawer Unit . . . . . \$ 6.00 ppd.  
24 Drawer Unit . . . . . 8.00 ppd.  
32 Drawer Unit . . . . . 11.00 ppd.  
48 Drawer Unit . . . . . 15.75 ppd.

Save Hundreds Dollars in Repairs

Amazing PLASTIC METAL  
Applies Like Putty—  
Hardens Like Steel



Mfd. by OKUN

Any break, crack or hole in metal, glass, wood, plastic, concrete, stone, cement or porcelain can be repaired in a jiffy by applying putty soft Plastic Metal—and in 40 minutes it hardens into a rigid steel-like solid that can be sanded, filed, sawed, drilled, machined and buffed to a gleaming lustre. Can't rust! Adheres to ALL surfaces with amazingly strong bond. Perfect for repairing leaks in pipes, boiler, fuel tank, car radiator, boat hull; cracks in motor 3 oz. jar blocks, fenders, lamps, jewelry, toys, bike, sink, etc. No boat owner, house, shop or plant can afford to be without it!

\$1.00  
Lg. 6 oz. jar \$1.95

Add 15¢ to each for pp. & hdlg.

Complete Power Tool

Accessory Set

100 PIECES



Designed for use in all 1/4" capacity Electric Drills and Motor Chucks. A complete power tool accessory set that can handle almost any job of grinding, sawing, cutting, off, polishing, buffing, reaming, sanding, drilling, cleaning, etching, etc. KIT CONTAINS:—Wire Wheel, Mounted Grinding Wheels, Rotary File, Abrasive Cartridge Rolls, Circular Saw Blade, Felt Bob and Wheels, Honing Stones, Jewelers Rouge, Buffing Wheels, Midret Steel Cutters, Bristle Brushes, Abrasive Sheets and sufficient Arbors to accommodate all the unmounted items.

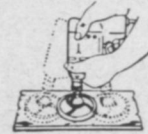
Over \$15 value \$4.98 only ppd.

Ball-Joint

SAND-O-PLANE

No Gouges—No Burns—No Swirls

Sands Flat to Surface.  
True Rotary Planer Action.



This fast, smooth attachment for your 1/4" electric drill will never leave a mark of any kind on your work. Just hold drill perpendicular to work and sand with ironing action—Sand-O-Plane does the rest! Sands with the action of a rotary planer—sands all directions of grain perfectly smooth. Its ingenious new self-oiling nylon ball joint allows movement of drill while disc still stays flat to surface. Has twelve square inches of contact area. Kit consists of disc, ball joint, polishing bonnet and spare sandpaper.

\$5.95 ppd.

Bigger drills at low, low prices!

4 Pc HIGH CHROME  
SPEED SET



Another of Scott Mitchell's famous tool bargains! The original \$42.50 price is right on the package, but you pay only \$9.95! A wonderful buy for advanced hobbyists, carpenters, construction workers, factories, machine shops! Made of high quality, specially hardened steel, with turned down shanks to fit all 1/2" electric drills. Zip through hardwoods, aluminum, iron, plastics, even the toughest steel! Sizes 5/8", 3/4", 7/8", 1". Come in numbered pocket, snap closure tool roll.

Reg. \$42.50

NOW \$9.95

plus 50¢ pp., hdlg.

Extra Special! 11 Pc. Set, Reg. \$99.50, NOW ONLY \$29.95 plus 11¢ pp., hdlg. Same features as 4 pc. set. Sizes 1/16", 3/16", 1/8", 3/8", 1/2", 5/8", 3/4", 7/8", 1 1/16", 1 3/16", 1 3/4".



FINEST QUALITY  
Imported Precision  
Pliers 75¢ Ea.

Flat Nose, Round Nose, Diagonal, End Cutting Nippers, 1 Side Flat—1 Side Round, Snipe Combination for Jewelers, Optical Workers, Hobbyists. These European instruments are of deep-forged, heat-treated high quality tool steel, fabricated to most exacting specifications. All-over ground, polished to smooth hard surfaces. Smooth working joints with right tension. Jaws meet perfectly to securely hold the most delicate objects in hard-to-reach corners and angles. Each plier is 4" long.

75¢ EACH, ALL 7 FOR \$5.00 ppd.

IMPORTANT

Order Today and Save. Minimum order \$1.00. Send Check or M.O. C.O.D. orders plus fee. Money Back Guarantee. Protects you against risk.

SCOTT-MITCHELL HOUSE, Inc.  
Dept. 2403—611 Broadway, New York 12, N. Y.