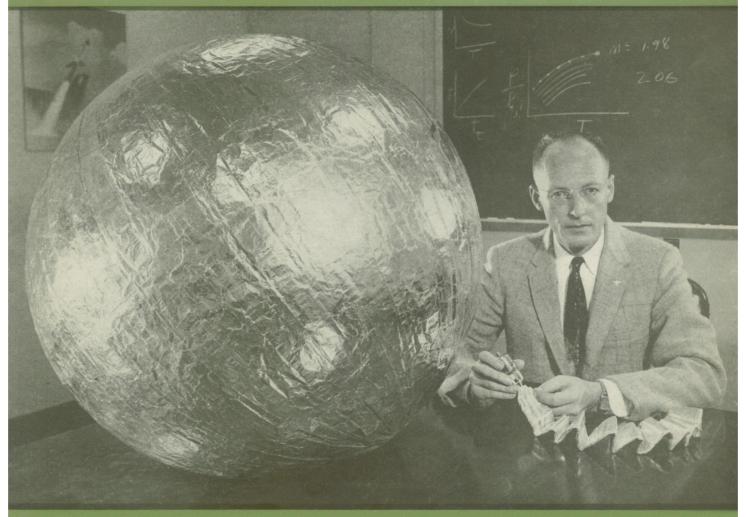
R

THE WEEKLY SUMMARY OF CURRENT SCIENCE



Inflated Satellite

See Page 244

A SCIENCE SERVICE PUBLICATION

Special Tool Bargains—Save Up to 50%

7 Power ILLUMINATED LOUPE



A MUST FOR EVERY HANDYMAN,
HOBBYIST, STUDENT
Imagine, a precision-built 7 power magnifier with
built-in light so every detail stands out clear and
sharp regardless of outsde illumination. Coated
lens. Battery model. An opening in the housing
permits use with other instruments. Lens diameter
13/16". Supplied with linen tester plate for
thread counting, which fits into the bottom of the
housing.

absolutely amazing value . . . worth \$9.95

(batteries not included)

ALSO AVAILABLE—5 x 50 Power Illuminated Loupe. Same features as above except lens dia. 1%". Use where wider field of vision, less magnification is needed. . . Worth \$10.95. (Batteries not included.)

NOW only \$4.95

Chrome Vanadium 29-piece DRILL SET



Specially made for speed drilling. In sturdy plastic tool roll, Finest alloy steel drills hardened and plastics, aluminum, iron and the toughest steels. Unconditionally guaranteed for thousands of drillings. Full jobber length. Sizes by 64th from 1/16" to 4". There are only a limited \$6.49 price, so hurry!

Also available with Turned Description of the same and the toughest steels.

Also available with Turned Down Shanks to fit all %" drills. In individual pocket \$8.95



60 Pc. Set Wire Gauge Chrome Vanadium Drills
Top quality high test Chrome
Vanadium Drills designed for
speed drilling through toughest
steels, woods, plastic, iron and
aluminum. Precision ground,
long-lasting cutting edges. Guaranteed to give years of satisfaction. A full 60 pc. set

NOW ONLY

S. 240

S. 240

NOW ONLY

NOW ONLY

S. 240

S. 24

Same set above available with Huor Index container—ONLY Also available 61-80 set of high quality drills, in plastic kit with marked pocket for each drill.

All above drill sets plus 35¢ pp. & hdig.

21/2 AMP. HEAVY DUTY 1/4" THOR SPEEDRILL

with Geared Chuck AC-DC 2400 RPM Reg. \$39.95 Reg. \$39.95 OUR PRICE \$14.95 plus 50¢ pp. and hdlg. If your work calls for a "rugged" drill with POWER to SPARE insist on a 2½ Ann. job ... and make sure it's THOR! No finer drill made. Solid steel, heat-treated helical gears; thrust taken on hardened steel ball and plate; gears permanently packed and sealed in LIFETIME grease! Switch, trigger and lock assembly siming and releasing trigger. You'll be wi at this price. Supplies limited.

12 Pc. Needle & Warding



FILE SET

TINY BABE and MIDGET HOISTS Easily Lifts Up To 2000 Lbs.

This amazing block and tackle is portable . . . weighs only 13 cunces. Fits in your pocket, in glove compartment of your car. Carrylt anywhere. A one hand operation that is easy to use. Powerful, lifts up to 2000 pounds.



Because of their great strength and small sizes these hoists have a multitude of uses: in your car for emergencies; in your car for emergency articles. Handy around industrial plants, too. The finest engineered hoists made anywhere. Best grade aluminum, with steel axles. Pre-lubricated for life. Hoists have two lifting slings, one at the top and one at the bottom with heavy welded steel rings. Slings can be doubled for added strength. Nylon cord tests 550 lbs, per strand. These Tiny Hoists will lift from 1000 to 2000 pounds. MIDGET BABE comes with 70 ft. nylon cord, 5 to 1 ratio—1000 pound test. Weight: 13 ounces. Price \$9.95. TINY BABE has 100 ft. nylon cord, 7 to 1 ratio—2000 pound test. Weight: 15 ounces. Price: \$12.95. Furnished with orange colored carrying bag. You can put it in your pocket. These hoists are unconditionally guaranteed for one year.

BABE \$9.95 BABE \$12.95

Revolving Leather Punches

\$1.59

plus 25¢ pp. hdlg.

Housewives
Children
Schools
Hobbyists
Jeather Workers
Make clean, sharp holes—6 different sizes—in all qualities, thicknesses of leather. Use in the home for punching holes in belts, shoes, bag straps to tighten them. Repair baseball gloves. The kids will use it to make wallets, belts at home, in arts and crafts classes. At this low price, an ideal buy!
9" long, with polished knurled handles, strong spring, 6 standard tubes, brass anvil. German import.

New! CALIBRATED LEVEL

No Guesswork! \$2 ppd.

No bother with inexact "bubble-type" levels! Devil Level is cali-brated for hairline accuracy! Nee-dle points to exact degrees, inches anything is off level or plumb. Measures vertically, horizontally, all angles! Level pictures, shelves, TV antennas, etc. One side measures degrees off level, other, pitch or inch rise per ft. Fits in pocket. For hobbyists, handymen, housewives.

Prices SLASHED 50% on Polyethylene PLASTIC ROLLS Made by Famous Kopper Bros.

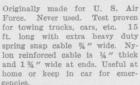


WATERPROOF. RESISTANT TO DUST, AIR, GREASE. **UNAFFECTED BY** HEAT, COLD.

Tack It, Staple It, Heat Seal It, Tape It!
Protect Newly Seeded Lawns, Shrubs, Plants!
Protects from dust, dirt, moisture, rust, mothset, cold, etc. Transparent! Stains wipe off! Lightweight, strong, inexpensive!
For HOME—Cover auto seats, furniture, mattresses, lamps, rugs, appliances, luggage, silver to prevent tarnish, air conditioners. Use as shower curtains, storm windows. Keep paint off furniture, floors, etc. Wrap food, mothproof wrap clothes.
For OUTDOORS—Cover boats, sports and fishing equipment, tennis courts, cars. Make children's play tents.

Add 50¢ to all prices for pp. & hdlg.

Gov't Surplus WEBBED TOW CABLE





ONLY 75c each FINEST QUALITY Imported

Precision Pliers

Precision Pliers
Flat Nose, Round
Nose, Diagonal,
End Cutting Nippers, 1 Side Flat—
1 Side Round,
Snipe Combination
for Jewelers, Optical Workers, Hobbyforged, 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
piler 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.

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. 2410 — 611 Broadway, New York 12, N. Y.

A special pre-publication offer to "scientists, painters, poets, philosophers, engineers, businessmen, teachers, tinkers"* and others—on the five new

SCIENTIFIC AMERICAN books

These are the $5\ new$

SCIENTIFIC AMERICAN

books

THE PLANET EARTH. Required reading in this International Geophysical Year. This book ignores the thin film of ever-changing animal and plant life on the Earth; it considers the forces, tides, and currents that stir our planet's core, crust, oceans, and atmosphere. 176 pages. Illustrated.

LIVES IN SCIENCE. Here the reader will meet two or three authentic giants, a hero or two, a saint and a rascal, sunny men of action, sour recluses, and a collection of eccentrics, prodigies and sages. Each man made his contribution to the 400-year history of science. 288 pages. Illustrated.

THE NEW CHEMISTRY. Current activity in the new chemistries of high speeds and temperatures, of "outlaw particles" and "free radicals," and rare earths, and of exquisitely sensitive analyses that detect an atom or two at a time. 244 pages. Illustrated.

PLANT LIFE. Plants furnish us with cheap and invaluable laboratory subjects for studying growth and form, genetics and evolution and the underlying chemistry of life — with its revolutionary impact upon agriculture and human nutrition. 256 pages. Illustrated.

THE UNIVERSE. How the two contending schools of modern cosmology (one of which believes that the universe is expanding) are putting their theories to the test of observation. 160 pages. Illustrated in gravure.

And here are the first 5
SCIENTIFIC AMERICAN BOOKS
(more than 40,000 of each
already sold)

AUTOMATIC CONTROL. About the mechanical "nervous systems" that make machines and factories regulate themselves.

ATOMIC POWER. The peace-loving atom: how nuclear reactors will be used to light homes and turn the wheels of industry.

THE NEW ASTRONOMY. The birth and death of stars, red giants and blue dwarfs, double stars and solar systems, globular clusters, errant comets, interstellar dust, galaxies.

THE PHYSICS AND CHEMISTRY OF LIFE. Life is explained in terms of the structure and behavior of the molecules that make up cells and tissues. 270 pages. Illustrated.

A TWENTIETH CENTURY BESTI-ARY. A new look at the behavior of animals, from the language of the bee to curiosity in monkeys. 240 pages. Illustrated. The brilliantly-acclaimed new series in which the world's leading scientists, writing in clear, non-technical language, report to the layman (and to their colleagues in other fields) news of the latest investigations on the frontiers of science.

SIMON AND SCHUSTER will shortly publish five new paperback books in the first science library of its kind. They are briefly described in the panel. Each book, superbly written, edited, and illustrated, gives a comprehensive view of new discoveries and conclusions in one major field of science.

Each book derives from articles that have appeared in *Scientific American Magazine*—the century-old periodical which, 10 years ago was, in the words of the *New York Times* "miraculously transformed by new hands into one of the most remarkable ventures in the history of scientific publication. Its roster of contributors reads like a Who's Who of contemporary science." The *New Yorker* has called it "without much doubt our most satisfactory link between the general public and the laboratory."

How a publishing experiment became an instant success

The first 5 Scientific American Books were published last year.

They were an instant success. Over 40,000 copies of each have already been sold.

The *Times* calls the series "a stimulating source of information and reflection" for the reader who is "curious to learn about himself and the world he lives in."

**The Bulletin of the Atomic Scientists wrote: "They are of interest not only to the non-scientist but to the professional who wishes to be au courant with the latest developments outside his specialization. One hopes Scientific American will be encouraged to expand its coverage with more books of this quality."

And here are typical reactions from readers: New Orleans: "It almost literally opened a new world for me. I'm a sociologist and

knew nothing about any of the physical sciences. Intelligible, exciting."... A New York reader praises the attractive format—adding "but I would read this kind of writing on wrapping paper."

To these thousands of readers — as well as to thousands more who are about to discover SCIENTIFIC AMERICAN BOOKS for the first time, we are happy to present the five new books in the second series.

A special pre-publication offer

The new titles, described in the panel, will soon be off press. They are handsomely printed, and illustrated, bound in strong paper covers. A large first printing enables us to price these books (size $5\frac{1}{2}$ x 8; 160 to 288 pages) at only \$1.45 each.

Readers who order the complete set of five, now, will be billed at only 6 - a saving of 1.25 on the five books.

SEND NO MONEY Examine for 3 weeks, free

You need send no money with the reservation form. But do mail it today. The books will be sent to you as soon as possible. Examine them, read them, enjoy them for 21 days.

The publishers believe it is no overstatement to say that these books—in addition to being basic equipment for scientists, engineers, businessmen concerned with new scientific developments, teachers, and young people contemplating careers in science or engineering—contain important and fascinating news for just about every literate inhabitant of our small but fascinating planet.

If you are not delighted with them, send them back and pay nothing. Otherwise we will bill you at only \$6 plus a few cents postage. SIMON AND SCHUSTER, Publishers, Dept. 108, 630 Fifth Avenue. (Company and Institutional inquiries invited.)

*A partial list of the people who, according to the Times, are likely to enjoy SCIENTIFIC AMERICAN BOOKS.	To Your Bookseller, or: SIMON AND SCHUSTER, INC., Dept. 108, 630 Fifth Avenue, New York 20, N. Y. Please reserve in my name and send as soon as ready the SECOND Set of 5 new SCIENTIFIC AMERICAN BOOKS for FREE examination. If not delighted, I may return the set within 21 days and pay nothing. Otherwise, you will bill me at the special price of only \$6.00 plus a few cents postage, as payment in full. Please ALSO send the FIRST Set of 5 SCIENTIFIC AMERICAN BOOKS for 21 days' FREE examination. If
	I keep them, you will bill me at the special price of \$6.00 plus a few cents postage as payment in full. Name
	Address
	City