

15¢

\$5.50 A YEAR

February 7, 1959

VOL. 75 NO. 6

PAGES 81-96

SCIENCE NEWS LETTER

®

THE WEEKLY SUMMARY OF CURRENT SCIENCE



Floating Men

See Page 85

A SCIENCE SERVICE PUBLICATION

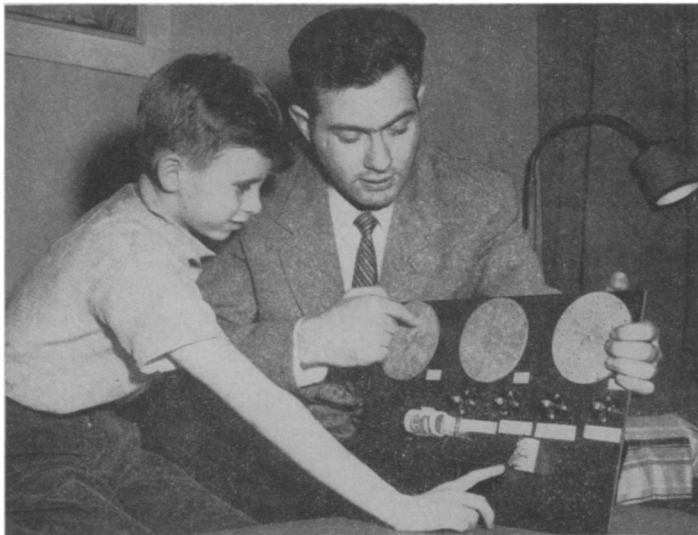
For Problem-Solving... Experimentation... Teaching... or Just Fun

BUILD YOUR OWN ELECTRIC BRAIN MACHINE

IN JUST A FEW HOURS!

Remarkable 400-Component Construction Kit Enables You to Create Any of 125 Brain Machines! Build LOGIC MACHINES that Compare, Reason, Test Intelligence; ARITHMETICAL MACHINES (Binary & Decimal); GAME-PLAYING MACHINES (Tic-Tac-Toe, Nim, Etc.)

Teachers and Scientists: Design Your Own Machines!



1959 GENIAC KIT CONTAINS (1) "How to Construct Electrical Brains at Home" —a fully illustrated text book on basic computer design theory and circuits with specific instructions for building 125 circuits. (2) "DESIGN-O-MAT,"® special booklet with instructions for designing your own computers. (3) Wiring Diagram Manual. A special booklet with full scale diagrams. (4) Beginners' Manual—fifteen extra experiments to teach the basic symbols of electric circuits. (5) Over 400 components and parts.

GENIAC® is the only kit and text combination that presents the basic ideas of cybernetics, boolean algebra, symbolic logic and computer circuitry for all levels of knowledge and intelligence. Sold to all customers on a one-week return guarantee; actually use it during that time, return it if you decide not to keep it.

WITH GENIAC® you build any of 125 electric brain machines in a few hours by following the clear-cut, step-by-step directions in the basic text provided. Advanced students and scientists can design machines for special problems. No soldering required, and little wiring. Change design of your machines in minutes! Build Binary Adding Machine • Secret Coder & Decoder • Machine for Arithmetical Carrying • Comparing Machine • Reasoning Machine • General Combination Locks • Games Requiring Logic • Machine for a Space Ship's Airlock • Intelligence Tester • Burglar Alarm • Puzzle Solvers and many others.

OVER 400 COMPONENTS AND PARTS

Circuits operate on one flashlight battery, and use ingeniously designed parts. 1959 GENIAC® KIT has been constructed by the original inventor to provide all the advantages of previous electrical brain construction kits plus what we have learned in answering the questions and examining the new designs created by hundreds of users.

SELF-CONTAINED COURSE IN COMPUTER DESIGN

Each GENIAC® comes as a self-contained course in computer design. All instructions are so simple that we have records of intelligent twelve-year-olds designing factoring machines and puzzle-solving circuits—while hundreds of schools and industrial training programs have incorporated our kits in their curricula.

YOUR COST FOR GENIAC KIT: ONLY \$19.95 POSTPAID

The coupon will bring your GENIAC® Electric Brain Construction Kit and Manuals for only \$19.95 postpaid. You may return the Kit within 7 days if you are not completely satisfied. For schools we offer bulk rates on extra texts and parts; for teachers, we offer 10% deduction on GENIAC® if ordered for use in institutions. Send for your Kit today!

SCIENCE KITS, Dept. SL-29-A

Oliver Garfield Co., Inc., 108 E. 16th St., New York 3, N. Y.

SOME INSTITUTIONS AND FIRMS NOW USING GENIAC®

- | | | |
|------------------------|---------------------|-------------------------|
| Allis-Chalmers | Lafayette Radio | Los Angeles Public |
| Remington-Rand | Rohr Aircraft Co. | Schools |
| International Business | Southwest Missouri | Jefferson Union High |
| Machines | State College | School |
| Wheeldex Mfg. Co. | Albert Einstein | Oklahoma A & M |
| Manuel Missionary | Medical College | Kansas State University |
| College | Naval Research | Duke University |
| Walter V. Clarke | Laboratories | Coral Gables Senior |
| Associates | Board of Education, | High School |
| Barnard College | Teoumsah, Nebraska | Courtland Jr. High |
| Westinghouse Electric | Marshfield Public | School |
| Phillips Laboratories | Schools | Bell Telephone |
| General Insurance Co. | | Laboratories |
| of America | | |

**ORDER
GENIAC
ON OUR
MONEY
BACK
Guarantee!**

SCIENCE KITS, Dept. SL-29-A
Oliver Garfield Co., Inc., 108 E. 16th St., New York 3, N. Y.
Please send me:
1 GENIAC Electric Brain Construction Kit and Manuals.
\$19.95 (East of Mississippi)
\$20.95 (Elsewhere in United States)
\$21.95 (Outside the United States)
Returnable in seven days for full refund if not satisfied. I enclose \$..... in full payment.
Name.....
Address.....
City..... Zone..... State.....

Kodak reports on:

the stylish advent of a new polyester structure . . . how much better x-ray film is getting

KODEL is the registered trademark for a new Eastman polyester fiber. Much is to be heard of it. It significantly extends the range of fabrics and apparel that can be classed as wash-and-wear or easy care. Garments in which it is properly blended with other fibers stay fresh and neat under trying conditions. They have a pleasing, comfortable feel. Here are some 55% *Kodel*-45% worsted blends in which it can be enjoyed this coming spring and summer.



Timely's "Planet" suit, a welcome addition to the wardrobe of commuter or global traveler. The modified lounge coat with slim lapels is available in both three-button and two-button models. Your choice of seasonal colors. About \$60.

Michaels-Stern has tailored this suit for the busy executive in both a bengaline plain pattern and a corded stripe, in a full range of sizes and colors. The name is "Whisper-wate" and with good reason—for the ultimate in cool comfort.

The long, slim, straight look of Varsity Town's "Picture Suit" takes on added distinction from the fabric—with *Kodel*'s soon-to-be-famous ability for holding a press, fending off wrinkles. Note the longer lapels, higher pockets.

To the suavity customary in those who model men's wear, our three gentlemen above add authenticity. Alan Bell (left, Ph.D., McGill University, 1937) and Charles Kibler (center, Ph.D., University of Virginia, 1939) directed the first synthesis of the *Kodel* polymer in the laboratories of Tennessee Eastman Company—a true linear polyester containing a chemical group not previously present in polyesters. Emmett V. Martin (right, Ph.D., University of California, 1932), now a physicist, once wrote a paper (*Plant Physiol.*, 10, 613-636) entitled "Effect of Artificial Wind on Growth and Transpiration in *Helianthus Annuus*." (That's the common sunflower.) He led the way to the unique physical structure of the *Kodel* fiber.

AA—KK

X-ray film is getting better.

Our fastest kind used to be *Kodak Industrial X-ray Film, Type K*. Now we call it *Type KK*. The speed has gone

up 50%. A 72-hour exposure becomes a 48-hour exposure. Time is money. So they say. Same principle applies to uranium fuel elements. (To Cs^{137} gamma rays, $\frac{3}{4}$ " of uranium looks like

4" of steel.) *Type KK* is a bit grainier than *Type K*. But it has higher contrast. The gain outweighs the loss. Up goes "radiographic sensitivity."* Radiographers can spot smaller voids.

Kodak Industrial X-ray Film, Type AA beats *KK* seven ways to Sunday for "radiographic sensitivity." It's some slower, though. As *Type A*, it used to be a lot slower. That was a little over a year ago. It was then the most widely used x-ray film in industry. Now it's more so. That sounds like tautology. Nevertheless, it makes us happy. With the higher speed, inherent contrast has gone up, not down. Grain's the same. This is remarkable.

They can just reduce exposure time. Even for thinner specimens, time is money. So it is said. Or they can cover more area at a single exposure. That's another way to save time. Or they can get their usual density with shorter processing. This likewise saves time.

Or they can take the same time and get more film density. Contrast and therefore "radiographic sensitivity" improve at higher density.

Or they can get through the specimen with less penetrating radiation. Softer radiation emphasizes density differences along ray paths of slightly different absorption. You want those differences.

Type AA also has less tendency to desensitization by mechanical pressure.

Kodak Industrial X-ray Film, Type M is for maximum detail and no rush, or else light specimens. *Kodak Industrial X-ray Film, Type F* goes with calcium tungstate screens. Their fluorescence in the visible intensifies the exposure. In a pinch that's sometimes all right.

If you had to, you'd get the hang of it, all right. Yes, even the radiography of plutonium hardware, where you're recording both endogenous and exogenous radiation. We'd give you what advice we could (but very little about plutonium). You'd write Eastman Kodak Company, X-ray Division, Rochester 4, N. Y.

But for goodness' sake, don't get physically involved before finding out about film badge dosimeters or placing yourself under the protection of someone who knows. For a free (literally) and easy smattering of that subject and a bibliography of more substantial fare, ask for the brand-new pamphlet "Radiation Monitoring."

*Don't trip. "Sensitivity" doesn't mean "speed" here.

This is another advertisement where Eastman Kodak Company probes at random for mutual interests and occasionally a little revenue from those whose work has something to do with science

Kodak
TRADE MARK

Special Buy!



ATTACHE CASE

Better Than LEATHER

- Waterproof
- Scuffproof
- Brass plated fittings
- Hardwood frame construction
- Fully Lined
- 17 x 11 1/4 x 4 inches
- Smart & Practical
- Ginger Tan

Styled by Executives for the carrying of papers, documents and small articles. Appreciated by Students, Salesmen, Accountants, trip takers. Roomy and durable. Practical and Neat.

EXTRA VALUE:
with inside file \$5.95
plus 10% F.T.

only \$4.95

plus 10% Fed. Tax

When remitting please add 75¢ for postage & handling

John Surrey, Ltd. 11 W. 32nd St., Dept. SN-93, New York 1, N.Y.



We guarantee that these coins are Genuine Silver Denarii of the Roman Emperor

SEPTIMUS SEVERUS (193 - 211 A.D.)

Coin Jewelry by Royal, New York

\$10.95 p.p.d. (6 pair \$60)

ANCIENT ROMAN SILVER COIN CUFF LINKS
Authenticated to be 1500-2000 Years Old. For the select few on your gift list who appreciate originals . . . who desire something practical yet unique, give them these fabulous Ancient Roman Silver Cuff Links. Each pair carries the portraits of famed Roman Emperors or Empresses . . . each specially finished so that the portraits are highlighted and the backgrounds have an oxidized finish . . . each pair carefully matched and mounted on sterling silver cuff link backs. These original coins, struck off by hand, have been discovered by archaeologists digging in ruins of ancient Roman cities. Obviously, there are only a limited number of coins available. Each set comes in a flannel drawing string pouch together with a description of the coins and a guarantee of their authenticity.

Send check or money order. If COD, fees extra. MONEY BACK GUARANTEE!

SCOTT MITCHELL HOUSE, Inc., Dept. 2402

415 So. Broadway, Yonkers, N. Y.

Get **UNITRON's** FREE Observer's Guide and Catalog on **ASTRONOMICAL TELESCOPES**

This valuable 38-page book is yours for the asking!

With artificial satellites already launched and space travel almost a reality, astronomy has become today's fastest growing hobby. Exploring the skies with a telescope is a relaxing diversion for father and son alike. UNITRON's handbook contains full-page illustrated articles on astronomy, observing, telescopes and accessories. It is of interest to both beginners and advanced amateurs.

Contents include—

- Observing the sun, moon, planets and wonders of the sky
- Constellation map
- Hints for observers
- Glossary of telescope terms
- How to choose a telescope
- Amateur clubs and research programs



UNITRON

INSTRUMENT DIVISION of UNITED SCIENTIFIC CO.
204-206 MILK STREET • BOSTON 9, MASS.

Please rush to me, free of charge, UNITRON's new Observer's Guide and Telescope Catalog 5-N1

Name _____
Street _____
City _____ State _____

POLICE-FIREMEN-DOCTORS
NURSES-TEACHERS
CIVIL DEFENSE-use
**EMERGENCY
CHILDBIRTH**

AN APPROVED MANUAL

64 Pages — 30 Illustrations

Plastic Cover — Wire Bound

Send \$3.00 to include postage & handling

POLICE TRAINING FOUNDATION

Franklin Park, Illinois



SPANISH (American or European) • FRENCH
GERMAN • ITALIAN • JAPANESE
MODERN GREEK • ICELANDIC

Any of 34 languages available at home

Only LINGUAPHONE, The World's Standard Conversational Method, brings 8 to 12 outstanding native language teachers into your home on fine recordings. It's like living in another land. You listen. You hear native men and women converse about up-to-date, every-day matters. You Understand. You SPEAK. Exciting Business, Travel Opportunities Here and Abroad. Linguaphone is used around the world by schools, governments, business firms. Over a million home-study students of all ages.

Stop Wishing—Start Talking! Send for FREE Book and Details of FREE TRIAL. Linguaphone Institute, T-31-029 Radio City, New York 20, N. Y.

Questions

GEOPHYSICS—What are believed to be the causes of the two distinct radiation belts in outer space? p. 83.

What new concept of the earth's shape has been recently reported? p. 87.

METEOROLOGY—How many lightning strokes were counted during the 16 days in 1958 when clouds were seeded with silver iodide? p. 86.

ROCKETS AND MISSILES—What six predictions were recently made by U. S. space experts? p. 85.

Photographs: Cover, U. S. Air Force; p. 83, Naval Research Laboratory; p. 85, Indiana University; p. 87, Bell Telephone Laboratories, Inc.; p. 90, Space Technology Laboratories; p. 96, Westinghouse Electric Corporation.

Do You Know

As of February, 1958, 1,519 isotopes of the 102 known *elements* had been discovered.

A small percentage of the *light* in the sky is polarized by scattering from dust and air molecules.

Significant changes in the magnetic properties of soft *magnetic* materials take place when they are exposed to nuclear radiation.

Schistosomiasis, or bilharzia, is a worm infestation spread by fresh water snails, and it afflicts at least 115,000,000 people in the world.

A 150-pound woman, walking on extremely narrow high heels, will exert momentarily a *pressure* equivalent to more than 2,500 pounds per square inch, or about eight times the boiler pressure of a mountain-type locomotive.

MICRO-ADS

Equipment, supplies and services of special interest to scientists, science teachers and students, science-minded laymen and hobbyists. 25¢ per word, payable in advance. Closing date 3 weeks prior to publication (Saturday).

SNL, 1719 N St., N.W., Washington 6, D. C.

PLASTICS

NEW LIQUID CASTING PLASTIC, CLEAR Colors. Embed real flowers, minerals, biological specimens, delicate instruments, electronic parts. Also cold setting resins and fiberglass for laminating, casting, molding, coating. Manual 25¢. Castolite Company, Dept. B1-80, Woodstock, Illinois.

BIOLOGICAL STAINS

BIOLOGICAL STAINS. FREE PRICE LIST. ESBE Laboratory Supplies, 459 Bloor St., W., Toronto, Ontario, Canada.

EMPLOYMENT SERVICES

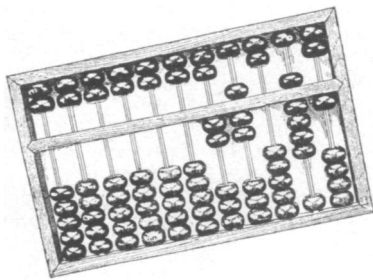
FLORIDA JOBS. ALL KINDS. ENTIRE STATE. hundreds listed. Write, Fastway Service, Daytona Beach.

NEW DEVICES AND PROCEDURES

RETIRED, SCIENTIST AND OTHERS, NEEDED to represent locally as Consultants and International Patent Management organization. We "screen" inventions. If appointed you may show on "business card" that you represent Patent Research, Inc., as a Consultant. Patent Research, Inc., 6 Gaywood Circle, Birmingham 18, Alabama.

The most delightful, most stimulating browsing book ever compiled in science . . . ON MATHEMATICS AND MATH- EMATICIANS, by R. E. Moritz, \$1.95

Inexhaustible source of quotations and
aphorisms for teachers, lecturers, writers . . .



Just a few quotes from Moritz's ON MATHEMATICS AND MATH- EMATICIANS

"In the end mathematics is but simple philosophy, and philosophy higher mathematics in general," Novalis.

"In questions of science the authority of a thousand is not worth the humble reasoning of a single individual," Galileo.

"I know not what I may seem to the world, but as to myself, I seem to have been only as boy playing on the seashore, and diverting myself in now and then finding a smoother pebble or a prettier shell than ordinary, while the great ocean of truth lay undiscovered all before me," Isaac Newton.

"It is no paradox to say that in our theoretical moods we may be nearest to our most practical applications," A. N. Whitehead.

"In mathematics, as in other fields, to find one self lost in wonder at some manifestation is frequently the half of a new discovery," P. Dirichlet.

"When he had a few moments for diversion, Napoleon not infrequently employed them over a book of logarithms, in which he always found diversion," J. S. C. Abbott's "Napoleon Bonaparte."

"When Dr. Samuel Johnson felt, or fancied he felt, his fancy disordered, his constant recourse was to the study of mathematics," James Boswell.

"When it is not in our power to determine what is true, we ought to follow what is most probable," Descartes.

"In 1626 Peter Minuit purchased Manhattan island from the Indians for about \$24.00. Suppose that the Indians had put their \$24.00 in the bank, and added the interest to the principal yearly. The amount would now be more than four billion dollars. The latest tax assessment for Manhattan [circa 1900] is three billion, eight hundred million dollars . . . if the Indians hadn't spent their \$24.00 . . ." W. F. White.



To Robert Edouard Moritz, Professor of Mathematics at the University of Washington, this book was a ten-year labor of love, and it is a tribute to his discriminating eye that this selection should remain one of the most stimulating books about mathematics ever published. It was the first collection of its kind in English, and it has never been equalled in its ability to convey a sense of the full range of mathematics, its enormous accomplishments, and the living personalities of the great mathematicians. To mathematicians it will be a constant source of pleasure, inspiration and encouragement. To teachers and writers it will remain of inestimable value as a source of quotations and ideas. It will dispel forever the narrow notion that mathematics is a cut-and-dried affair, isolated from other compartments of life and thought.

More than 1100 fully annotated selections are included in this book. Gathered from the works of some 300 authors, they cover a vast range of subjects pertaining to mathematics: the definitions and objects of mathematics, teaching, mathematics as a language or an art, mathematics and philosophy, logic, mathematics & science, the lives of great mathematicians, and similar topics. Whole philosophies of study and appreciation, whole worlds of learning are contained in brief. Great men like Archimedes, Euler, Gauss, Poe, Shakespeare, Weierstrass, Newton, Fourier, Cayley and others express their insights in brief. It is difficult to imagine anyone interested in mathematics who is not delighted with this browsing book.

When out-of-print this book has sold from \$10 on up on the second-hand market. Formerly titled "Memorabilia Mathematica"; Subject & author indexes. 423pp. AB489. Paperbd. \$1.95

NEW DOVER BOOKS

AB480. **PHILOSOPHY AND THE PHYSICISTS**, Susan Stebbing. Clarify your thought about theoretical physics in this nontechnical critical examination of Jeans, Eddington, 301pp. Paperbd. \$1.65

AB447. **GUIDE TO THE LITERATURE OF MATHEMATICS & PHYSICS**, N. G. Parke. 2nd, enlarged edition. 5500 key books, monographs classified & described, in 120 different fields. Will save hundreds of hours for you, open new areas of thought. Indispensable to everyone in science, whether beginner or advanced researcher. 440pp. Paperbd. \$2.49

AB473. **AMUSEMENTS IN MATHEMATICS**, H. Dudeney. One of largest collections, on all levels of difficulty; by England's foremost puzzle creator. Solutions. 450 figures. 244pp. Paperbd. \$1.25

AB474. **CANTERBURY PUZZLES**, H. Dudeney. Chaucer's pilgrims' set one another puzzles in story form; also other story chains. Solutions. 262pp. Paperbd. \$1.25

AB494. **INTRO. TO GEOMETRY OF N DIMENSIONS**, D. M. Y. Sommerville. Only book in English devoted to increasingly important field. 60 diagrams. 196pp. Paperbd. \$1.50

AB460. **ELEMENTS OF NON-EUCLIDEAN GEOMETRY**, D. M. Y. Sommerville. Progressive text, with exercises. Extremely lucid. 129 figures. 290pp. Paperbd. \$1.50

AB491. **FROM EUCLID TO EDDINGTON**, E. Whitaker. Great British scientist discusses space, time, movement, relativity, quantum physics, etc. in non-mathematical form. 212pp. Paperbd. \$1.35

AB385. **ELASTICITY, PLASTICITY & STRUCTURE OF MATTER**, R. Houwink. 2nd edition, covering range of materials from crystals, resins, textiles, rubber, proteins, etc. "A remarkable treatise," NATURE. 384pp. Paperbd. \$2.45

AB478. **THE POLISH PEASANT IN EUROPE AND AMERICA**, W. Thomas, F. Znaniecki. Complete, unabridged reprinting of enormously important sociological monograph, acclaimed one of great works of century. 2250pp. Three volume set. Clothbd., set, \$12.50

AB481. **FOUNDATIONS OF EUCLIDEAN GEOMETRY**, H. Forder. 1st modern rigorous study of Euclidean geometry. Classes, congruence, etc. 295pp. Paperbd. \$2.00

AB486. **THEORY OF THE POTENTIAL**, W. MacMillan. Comprehensive thorough approach requiring no background of integral equations; specific problems. 493pp. Paperbd. \$2.25

AB482. **LINEAR GROUPS, WITH AN EXPOSITION OF THE GALOIS FIELD THEORY**, L. Dickson. Milestone in modern algebra, reprinted unabridged; most thorough exposition of Galois fields in literature. 327pp. Paperbd. \$1.95

LISTEN & LEARN RUSSIAN now available! Three 10" 33 1/3 records, manual, only \$5.95 per set!

LISTEN & LEARN is specially designed to help you in colloquial language. By far the most useful set for travel, wonderful as a refresher, as a supplement to any course, or for self study; excellent as an introduction via the modern phrase method. It presents practical language in a form you can use immediately. Check these unusual features: (1) modern language, no deadwood, no technicalities, no trivia; (2) high fidelity recording; (3) English & foreign language recorded, with a pause for your repetition; you build automatic associations. (4) 128-page (196 for Russian) manual, with complete record text; only fully indexed set on the market. (5) GUARANTEED. Return it within 10 days if you are not satisfied with it. High quality, practical, inexpensive. N. Y. HERALD TRIBUNE. Wonderful gift for a friend travelling, for a beginner. Not a markdown; simply a remarkable value. Each set contains three 10" 33 1/3 records (1 1/2 hours recording), manual, album.

AB879. Listen & Learn Russian, set, \$5.95
AB875. Listen & Learn French, set, \$4.95
AB876. Listen & Learn Spanish, set, \$4.95
AB877. Listen & Learn German, set, \$4.95
AB878. Listen & Learn Italian, set, \$4.95

AB387-8. **THEORY OF FUNCTIONS OF A REAL VARIABLE**, E. Hobson. Most thorough intro. to Fourier series, sets, functions. "Best possible guide to anyone who encounter analysis," NATURE. 1591pp. 2 vols. Set, paperbd. \$6.00

AB465. **HOAXES**, Dr. C. MacDougall. Professor of Journalism at Northwestern analyzes more than 350 hoaxes in art, science, history, current events, etc. Delightful study of pranks, hoaxes, publicity stunts, frauds. Revised ed. 347pp. Paperbd. \$1.75

AB394. **FADS & FALLACIES IN THE NAME OF SCIENCE**, Martin Gardner. Standard coverage of fads, cults, eccentric science; Atlantis, dianetics, flying saucers, orgone energy, etc. Both informative and entertaining. 384pp. Paperbd. \$1.50

AB377. **FOUNDATIONS OF PHYSICS**, R. Lindsay, H. Margenau. Bridge between elementary treatises and technical works; stress on ideas and methodology. Classical physics, relativity, quantum physics. "Unreservedly recommended," NATURE. 567pp. Paperbd. \$2.45

AB367. **101 PUZZLES IN THOUGHT AND LOGIC**, C. Wylie. No math needed. Solutions. 128pp. Paperbd. \$1.00

AB295. **HOW TO CALCULATE QUICKLY**, H. Sticker. Tried true method of 9,000 problems, answers. 256pp. Paperbd. \$1.00

AB429-30. **HISTORY OF MATHEMATICS**, D. E. Smith. 2 vol. set provides best, most detailed coverage of math & mathematicians from primitive to early 20th century. Non-technical, up thru calculus. 550 illustrations. 1325pp. Set, paperbd. \$5.00

AB372. **FOUNDATIONS OF SCIENCE, PHILOSOPHY OF THEORY & EXPERIMENT**, N. Campbell. Not a text, but a thorough examination of ideas behind science. "A great feat to put together a book with so much fresh thought," E. Andrade, NATURE. 578pp. Paperbd. \$2.95

AB456. **THEORY OF PROPERTIES OF METALS & ALLOYS**, N. Most, H. Jones. Unabridged reprinting. 138 figures. 339 pp. Paperbd. \$1.85

AB459. **MICROWAVE TRANSMISSION DESIGN DATA**, F. Moreno. Ultrahigh frequency transmission lines & equipment. Practical, engineering approach. 257 pp. Paperbd. \$1.50

AB472. **FUNDAMENTAL PRINCIPLES OF QUANTUM MECHANICS, WITH ELEMENTARY APPLICATIONS**, E. Kemble. Rigorous, treating hundreds of problems. 131pp. Paperbd. \$2.95

AB464. **HOW TO MAKE A TELESCOPE**, J. Texereau. French optical engineer gives complete instructions for 8" Newtonian f6, f8 reflector, all with simple equipment. 225 figures. 204pp. Clothbd. \$3.50

AB395. **TREES OF THE EASTERN & CENTRAL UNITED STATES & CANADA**, W. Harlow. Serious study enables you to identify 140 different trees; full of woodlore. Over 600 photos. 301pp. Paperbd. \$1.35

AB370. **CALCULUS REFRESHER FOR TECHNICAL MEN**, A. A. Klaf. 756 detailed questions, answers provide brushup; also 566 problems, odd numbered answered. 436pp. Paperbd. \$2.00

Dept. 203AB, Dover Publications, Inc.,
180 Varick St., New York 14, N. Y.

Please send me the following books (give key number):

I am enclosing \$ in full payment. Payment in full must accompany all orders except those from libraries or public institutions, who may be billed. On orders less than \$5, please add 10¢ per book to your remittance to cover postage and handling.

Please print

Name

Address

City Zone State

GUARANTEE: Satisfaction unconditionally guaranteed. All books and records returnable within 10 days for full refund.