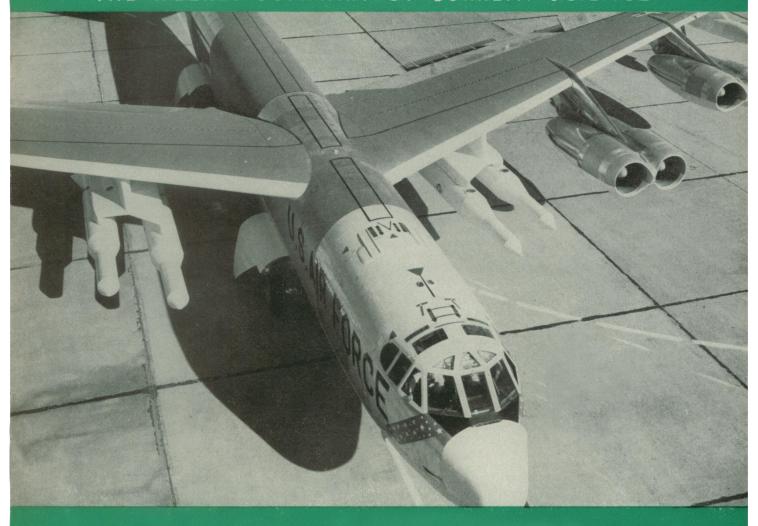
SCIENCE NEWS LETTER





THE WEEKLY SUMMARY OF CURRENT SCIENCE



Flying Missile Launcher

A SCIENCE SERVICE PUBLICATION

How can we three dimensional beings understand the fourth dimension? Only non-technical, thorough introduction now reprinted for only \$1.35!

THE FOURTH DIMENSION SIMPLY EXPLAINED edited by Dr. Henry P. Manning Now only \$1.35

Does the fourth dimension have a real physical existence?

Can certain mental techniques help us to imagine the fourth dimension?

Could certain chemical and physical properties (such as isomerization and polarity) be better explained in the fourth dimension?

What are the fundamental properties of 4-dimensional space?

What are the important differences between Euclid's, Lobatchevsky's and Riemann's geometries?

To remove the contents of an egg without puncturing the shell, or to drink the liquor in a bottle without removing the cork is clearly unthinkable—or is it? Curiously enough, if you were acquainted with 4-dimensional geometry, you could form a logical conception of the possibility of such actions.

could form a logical conception of the possibility of such actions.

The conception and development of a geometry based on four dimensions was one of the great advances of mathematics and science. At first no more than a theoretical discipline, 4-dimensional geometry was to prove an indispensable element in Einstein's Theory of Relativity—and thus become essential to an understanding of the modern world of "curved" space.

But without years of training in higher mathematics, how can we understand what the 4th dimension is? The answer is the famous series of 22 essays that first appeared in the Scientific American about the time relativity first made an impact on the world. These essays were the prize answers in a contest for articles explaining aspects of the fourth dimension in non-technical terms. They were

judged so excellent that they were collected in a book which is the most thorough non-technical introduction to the 4th dimension and one of the treasures of explaining-science literature.

the 4th dimension and one of the treasures of explaining-science literature. In addition to providing fascinating mental stimulation, this book will give you a surprisingly well-rounded understanding of how the 4th dimension may best be conceived, what its geometry is like, how this geometry differs from three-dimensional geometry, and some thought-provoking 4th dimensional paradoxes and curriosities. Since each essay is independently conceived, you also benefit from several novel and unique points of view. In none of the essays is any prior mathematical knowledge required, yet you will find your understanding of this important field enormously increased. Dr. Henry F. Manning's introduction ties the essays together and further extends your insight into the field by discussing more advanced topics. Unabridged republication of first (1910) edition. Introduction. 82 figures. 251pp. 5 % x 8.

CE711. Paperbound \$1.35

OTHER UNUSUAL DOVER VALUES!

CE633. FREE & INEXPENSIVE EDUCATIONAL AIDS, T. J. Pepe, Supt. of Schools, Southbury, Conn. Analyzes 1,500 free (or less than 25¢) books, pamphlets, films, charts, manuals, etc., covering 350 areas in science, industry, domestic arts, social studies, music, travel, etc. Evaluates, tells where to get them. A serious scholarly project for teachers, parents, etc., not a gimmicky hodge-podge. Indexed. 301pp. Paperbd. \$1.35

Paperbd. \$1.35

CE716. PIONEERS OF SCIENCE and the Development of their Scientific Theories, Sir Ollver Lodge First reprinting in 30 years of famous non-technical exposition of advance in scientific knowledge from Copernicus to Lord Kelvin. 120 illus. 419pp.
Paperbd. \$1.50

exposition of advance in scienting knowledge from Copernicus to Lord Kelvin. 120 illus. 419pp. Paperbd. \$1.50

CE587. GREAT IDEAS OF MODERN MATHE-MATICS, THEIR NATURE & USE, J. Singh. Number theory, sets, matrices, groups, non-Euclidean geometry, vectors, etc., explained for laymen in words and elementary math approaches. 320pp. Paperbd. \$1.55

CE613. GO AND GO-MOKU, Edward Lasker. Learn to play the fascinating Oriental board games that have achieved vast popularity in U.S. recently. Some consider Go more profound than chess, despite its simple structure. Pamed chess master and Gexpert E. Lasker gives full directions, pointers on play, sample games, etc. Equipment is so simple you can make a Go set in half an hour. New revised edition, 72 diagrams. 234pp. Paperbd. \$1.45

CE518. STRANGE STORY OF THE QUANTUM. B. Hoffmann. Prof. of math at Queens, N. Y., explains development of one of the most important ron-technical terms. "Superb." Mathematics Magazine. 2nd, enlarged edition up to 1959. 275pp. Paperbd. \$1.45

CE671. FARES PLEASE! J. Miller. Nostalgic, Paperbd. \$1.45

CECTIS. STRANGE STORY of THE VICTURE CECTIS. STORY of the Mathematics Magazine. 2nd, enlarged edition up to 1959. 275pp. Paperbd. \$1.45

CE671. FARES PLEASE! J. Miller. Nostalgic, Paperbd. \$1.45

CECTIS. STRANGE STORY of The Nostalgic, Paperbd. \$1.45

CECTIS. STRANGE PLEASE! J. Miller. Nostalgic, Paperbd. \$1.45

TEACH YOURSELF BOOKS

Learn the basic mathematics of science, industry, at home in less than one hour per day. These are serious, specially designed courses for fast efficient learning, with lesson-sized chapters, simplified teaching methods and graded exercises and brothems (with answers at the back of the book). We feel these are the best self-instruction manuals on the market, and back them with our usual money-back guarantee. Only \$2.00 each for fine, clothbound British imports.

CE680. TEACH YOURSELF ALGEBRA
307pp. Clothbound \$2.00
CE681. TEACH YOURSELF GEOMETRY
Clothbound \$2.00
CE682. TEACH YOURSELF TRIG.
204App. Clothbound \$2.00

CE595-6. PHYSICS, THE PIONEER SCIENCE.
L. W. Taylor. Do you have high school algebra?
Then you have all the preparation you need to get
the equivalent of a college course in physics with
unusual two-volume set. Covers everything, mechanics,
light, electricity, etc., in historical settings (with
extensive quotes of original discoveries) that dramatize development of knowledge, yet includes actual
quantitative relationships, laws, formulas, mathematics
that enable real understanding of physics. "A real
contribution," Rev. of Scientific Instrument. 772
illus. Total of 915pp.

Two volume set, paperod. \$4.00

CE498. MATHEMATICAL PUZZLES OF SAN LOYD, VOLUME I, Martin Gardner, ed. 117 best puzzles of America's greatest puzzle-creator. Classics of mental entertainment. Horse of a Different Color puzzle etc. Solutions. 120 illus, 187pp. Paperbd. \$1.00

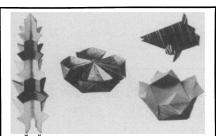
CE709. MATHEMATICAL PUZZLES OF SAM LOYD, VOLUME II, Martin Gardner, ed. Second (and final) collection of 166 of the great puzzlemaker's most ingenious posers. Euclid and the Court Jester, Rip Van Winkle's Second Game, etc. Solutions. 135 illus. 176pp. Paperbd. \$1.00

CE193. HIGHER MATHEMATICS FOR STU-DENTS OF CHEMISTRY & PHYSICS. H. Mellor. Diff and integ calculus, infinite series, differential equations, Fourier's series, etc., in terms of practical subject matter of physics and chemistry. 800 prob-lems. 662pp. Paperbd. \$2.25

lems. 662pp.

CE370. CALCULUS REFRESHER FOR TECHNICAL MEN, A. Klaf. Thorough review reference of integ. and diff. calculus by means of 756 questions & detailed answers. Practical uses stressed. Also 566 problems, most with answers. 436pp.

Paperbd. \$2.00



CE713. PAPER FOLDING FOR BEGINNERS, by W. D. Murray and F. J. Rigney \$1.00
Just out! Create scores of beautiful, unusual amusing paper objects with this remarkably clear introduction to ancient Japanese art of "origami" or paper folding, now sweeping America. We chose this book for inexpensive reprinting on the advice of America's foremost experts in origami, as the simplest, clearest, easiest-to-follow introduction. No more hours of trial and error or bafflement over cryptic instructions, Just follow clear directions to make place mats, cups, intricate boxes, sailboats, planes, ladders, birds, pagodas, roosters, over 35 other objects and figures in 3-dimensions, just by folding paper! Have hours of fun, entertain children, etc. 279 diagrams. 95pp. 5% x 8.

CE295. HOW TO CALCULATE QUICKLY, H. Sticker, Serious course, not tricks, designed to develop number sense; methods not taught in schools, 256pp. Paperbd. \$1.00

CE1. FLATLAND, E. Abbot. Perennially popular classic about life in 2-dimensional world, and the impingement of higher dimensions. Excellent intro. to dimension concepts, as well as entertaining diversion. Paperbd. \$1.00

128pp. Paperbd. \$1.00
CE367. 101 PUZZLES IN THOUGHT & LOGIC,
C. Wylle. No math, no special knowledge needed to
solve these puzzles; only mental agility. Full solutions, methods of solving. 128pp. Paperbd. \$1.00
CE643. OPTICS & OPTICAL INSTRUMENTS, an
Intro. with Special
tions, B. Johnson. Everything the amateur lensmaker needs to know. 224pp. Paperbd. \$1.65

CE526. CULTURE METHODS FOR INVERTE-BRATE ANIMALS, J. G. Needham, ed. Indispensable lab handbook 313 articles cover 17 phyla, 100's of species, from protozoa to chordata, from point of view of growing cultures, food, collecting, etc. 590pp.

Paperbd. \$2.75

CE326. SAILING ALONE AROUND THE WORLD.
J. Slocum. Classic real-life adventure. 308pp.
Paperbd. \$1.00

CE686-7. PRINCIPLES OF STRATIGRAPHY, A. W. Grabau. Huge, two-volume coverage of factors that form earth's crust: types of rock, erosion, sediment-clogy, etc. Unabridged text of classic by world-famous geologist. 264 illus. Total of 1225pp.

Two volume set, paperbd. \$5.00

CE598. HEREDITY & YOUR LIFE, A. M. Winchester. Basy-to-follow intro, to genes, sex, transmitted and acquired traits, mutations, intelligence, radiation, etc. 352pp. Paperbd. \$1.45

CE528. CHESS STRATEGY, Edward Lasker. Taught Fine, Keres, Tal, etc. "Finest book in English," J. Capablanca. 282pp. Paperbd. \$1.50

CE691. THE WONDERFUL WIZARD OF OZ, L. Frank Baum. Only edition with all original Denslow drawings in full color! 153 illus. 276pp.

Paperbd. \$1.45

CE473. AMUSEMENT IN MATHEMATO.

Frank Baum. Only edition with all original Denslow drawings in full color! 153 illus. 276pp.

Paperbd. \$1.45

CE473. AMUSEMENT IN MATHEMATICS, H.
Dudeney. Largest collection in print; 430 puzzle's by England's puzzle champ, all with solutions. 450 illus. 268pp.
Paperbd. \$1.25

CE622. THE STORY OF X-RAYS FROM RONT-GEN TO ISOTOPES, Dr. A. Bleich, N. Y. Med. Coll. How X-rays were discovered: uses in medicine, physics, industry art, forgery detections, etc. Non-technical. 54 illus. 196pp.
Paperbd. \$1.35

CE395. TREES OF THE EASTERN & CENTRAL U.S. & CANADA, W. Harlow, Prof. of Wood Tech., N.Y. State. Standard guide covers 140 trees: uses, lore, etc. Identification key. Over 600 photos & drawings. 196pp.

CE394. FADS & FALLACIES IN THE NAME OF SCIENCE, M. Gardner. Atlantis, dianetics, Orgone theory, flying saucers, Bridey Murphey, other cults, delusions exposed. 384pp.

Paperbd. \$1.35

CE667. CHESSBOARD MAGIC, I. Chernev. Unusual endgame compositions selected for aesthetic pleasure, entertainment: 5 pawns in row, etc. 184pp.

CARROLL. Largest collection ever made! Hunting of the Snark, Phantasmagoria, Alice poems, many more. 130 original illustrations by Tenniel, Frost. Delights adults, children. 450pp. Paperbd. \$1.85

CE464. HOW TO MAKE A TELESCOPE. J. Toxereau. Simple, step-by-step directions for f/8 or f/8 Newtonian reflecting telescope, by famous French optician 203pp. 64 x 10.

CIOCHM. ASTRONOMY, H. C. Plumer. Standard text on math of orbits, two-, three

optician 203pp. 634 x 10. Clothbd. \$3.50
CE689. DYNAMICAL ASTRONOMY H. C. Plummer. Standard text on math of orbits, two, three-body problems. 357pp. Paperbd. \$2.35
CE697. ALGEBRAIC EQUATIONS, E. Dehn. Newly corrected edition presents both Lagrange's and Galois's theories. 219pp. Paperbd. \$1.45
CE572. MODERN THEORIES OF INTEGRATION, H. Kestelman. Includes new chapter on Riemann-Stieljes intergration. 329pp. Paperbd. \$2.00
All books 534 x 8 unless otherwise indicated. All books 5% x 8 unless otherwise indicated.

				Publi 14. N	cations, . Y .	Inc.,	180
Please	send	me	the fol	lowing	books:		
T am a	meloe	ing 9	1	in full	payment	Pav	ment

I am enclosing \$ in full payment. Payment in full must accompany all orders except those from libraries or public institutions, who may be billed. Please add 10¢ per book to your remittance (for postage and handling costs) if your order is less than \$5.00. (Please print)
Name
Address
City Zone State GUARANTEE: Satisfaction guaranteed. All books returnable within 10 days for full refund.