

# SCIENCE NEWS

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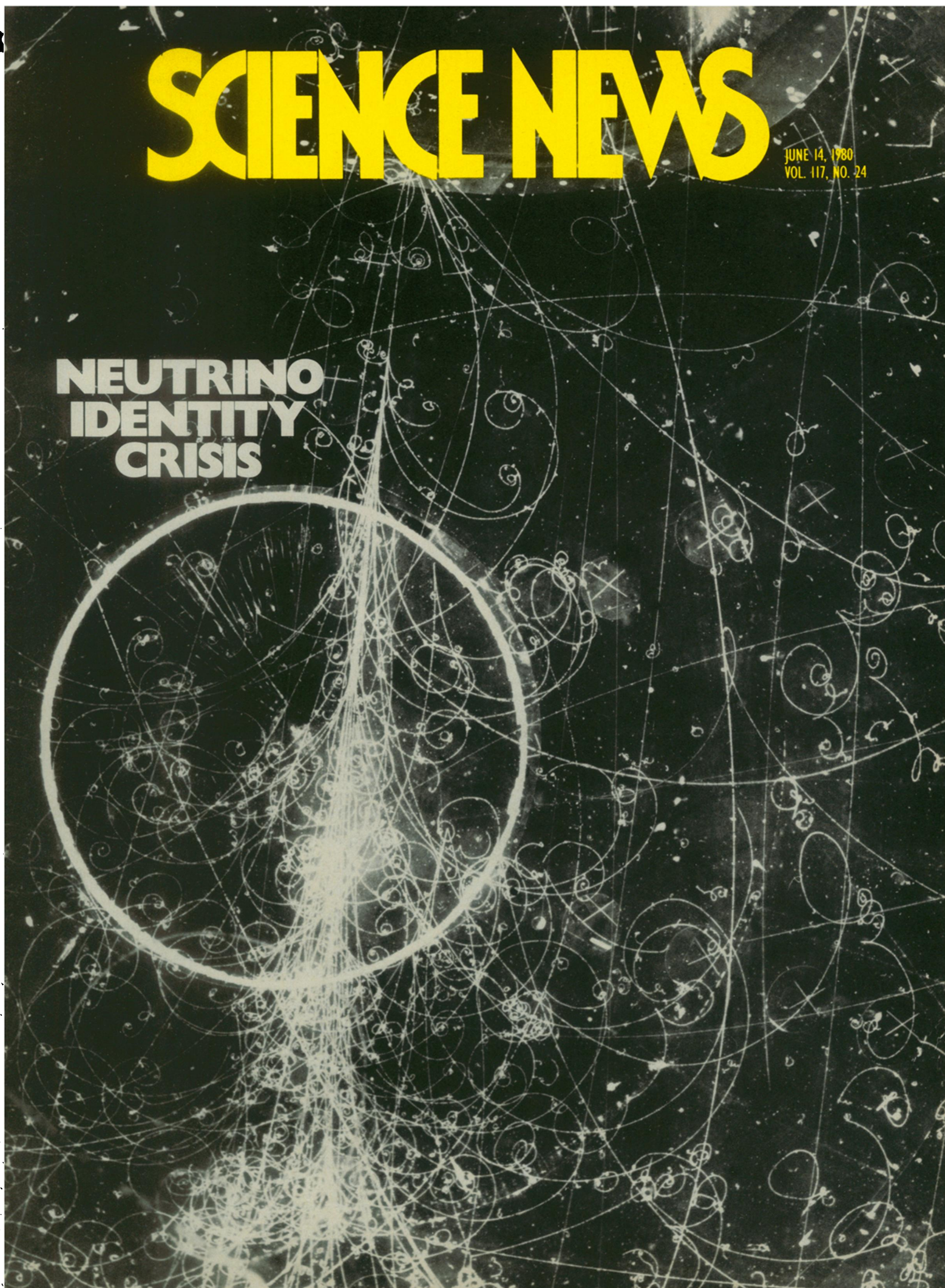
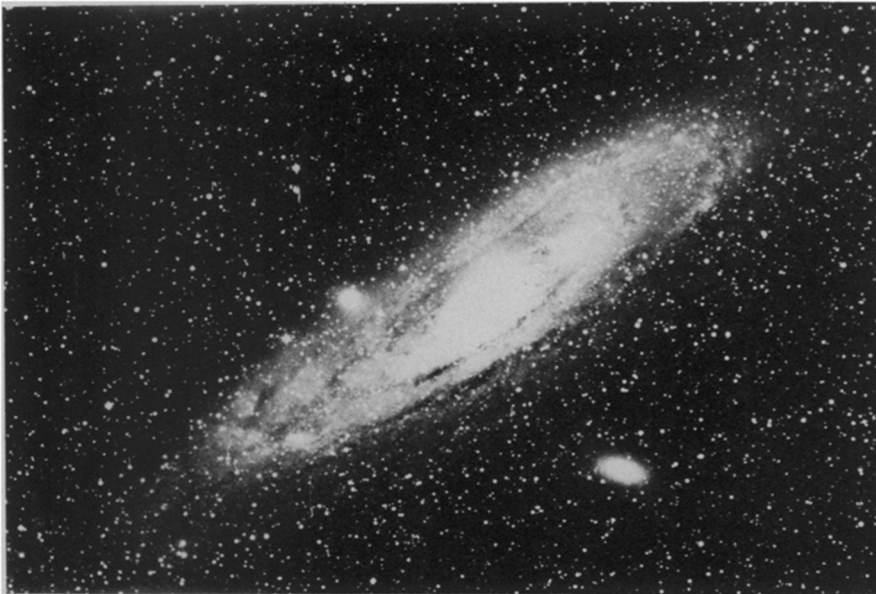


Photo by David Healy



## Welcome to the expanding universe . . .

The known universe is expanding at the rate of 40 trillion cubic light-years per second. And, not only is the universe *physically* expanding, but our understanding of it is undergoing an unprecedented explosion as well: we have gained more *new* knowledge of the universe in the last two decades than in *all prior human history!*

The pace of discovery is now so rapid that most – if not all – of the astronomy books in your local library are badly out-of-date – *even if they are only a few years old!*

*STAR & SKY* is a magazine that pays particular attention to the fast-breaking news and keeps you on top of it like an astronomy newspaper . . . in it you can find consistently accurate, detailed reports of what's going on today (and *tomorrow*) in space exploration, astronomical research and discovery.

*STAR & SKY* has reporters at mission control for the latest planetary encounters so we can bring you the detail and full color illustrations that the general science magazines don't seem to have room for. We reported on what the Voyager and Pioneer spacecraft actually found at Jupiter and Saturn and in later issues augmented it with late-breaking data emerging from further analyses.

We cover the scientific meetings at the world's great observatories and universities to bring you details of the most recent discoveries about quasars, galaxies, black holes and such mind-stretching concepts as the origin and destiny of the universe. In addition, our monthly report on manned space activities by James Oberg at NASA's Johnson Space Center ensures that you won't miss a thing.

**UNLIKE ANY OTHER MAGAZINE IN THE FIELD** we often publish *Special Issues* – entire issues devoted to in-depth treatment of *single topics*. Our most recent *Special Issue* is an all-inclusive examination of those cosmic enigmas, **BLACK HOLES**.

Six feature articles survey the most up-to-the-minute black hole facts and notions, written by authors who are among the best-known names in the field:

- **SPACE, TIME AND BLACK HOLES** by *William J. Kaufmann*: *By severely warping space and time, black holes can create a totally alien realm that may lead beyond the universe.*
- **THE ULTIMATE BLACK HOLE** by *Isaac Asimov*: *What would happen if all the matter in the universe were compressed into one enormous black hole?*
- **THE MAW OF THE ABYSS** by *Wallace Tucker*: *Colossal black holes with masses greater than a billion suns may lurk in the hearts of galaxies and quasars.*
- **BLACK AND WHITE HOLES: MINIS, MAXIS AND . . . WORMS!** by *Barry Parker*: *Are black holes gateways to other universes?*
- **BLACK HOLES OF THE MIND** by *Philip Morrison*: *A leading physicist cautions against confident acceptance of black hole reality.*
- **STEPHEN HAWKING, BLACK HOLE REVOLUTIONARY** by *Ian Ridpath*: *Wherever black holes are discussed, the name of Stephen Hawking is sure to*

*emerge. This physicist has created a revolution in our understanding of black holes.*

These *Special Editions* give you the most thorough, in-depth and up-to-date accounts available anywhere: the facts, the findings, old and new theories, photos, computer-generated art, schematics and diagrams, upcoming projects and the riddles they hope to solve – all presented to you by the greatest astronomy minds on Earth!

**A BALANCE OF VIEWPOINTS AND AN ARRAY OF FACTS ALL IN ONE VOLUME AVAILABLE NOWHERE ELSE – BOOKS OR MAGAZINES!**

*STAR & SKY* is a blend of visuals and precise but easy-to-digest text. Jargon is held to a minimum yet we don't skimp on comprehensive coverage.

And art: What does a black hole look like? How does it work? How do the rings of Jupiter, Saturn and Uranus differ? Where photography is impossible, we turn to art. Intelligent renderings—made by astronomer-artists who keep abreast of the newest theories and discoveries – portray visually the probabilities and possibilities we can't see.

*STAR & SKY* brings you top authors in both professional and amateur astronomy: Isaac Asimov, James Oberg, Richard Hoagland, William J. Kaufmann, Barry Parker, Wallace Tucker, John Gribbin, Patrick Moore, John Sanford, Leo Henzl, Terence Dickinson, Ray Villard, Joel Davis, Trudy E. Bell, George T. Keene, James Mullaney, and many others.

*STAR & SKY* covers the entire field of astronomy: **IT IS THE COMPLETE REFERENCE FOR EVERYONE INTERESTED IN THE UNIVERSE.**

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**BUILDING AND USING A SOLAR-HEATED GEODESIC GREENHOUSE** — John Fontanetta and Al Heller. Shows how anyone without special tools or equipment can build a geodesic greenhouse, maintain and operate it and raise food under the dome. Garden Way Pub, 1979, 193 p., illus., paper, \$8.95. [2]

**CANCER CARE: A Personal Guide** — Harold Glucksberg and Jack W. Singer. Two cancer specialists explain the different types of cancer, how each is identified and treated, common problems, heredity and cancer and environmental carcinogens. Written to provide people who have cancer and their families with enough information for them to evaluate the quality of the patient's medical care. Johns Hopkins, 1980, 414 p., \$14.95. [3]

**CAREERS WORKING WITH ANIMALS: An Introduction to Occupational Opportunities in Animal Welfare, Conservation, Environmental Protection and Allied Professions** — Guy R. Hodge. Explores a variety of professions requiring diverse educational backgrounds and skills and analyzes the prospects in these fields. The Human Society of the U. S. (Acropolis), 1979, 146 p., illus., paper, \$6.95. [4]

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**THE COMPLETE CARE OF ORPHANED OR ABANDONED BABY ANIMALS** — C.E. Spaulding and Jackie Spaulding. Tells how to take care of nearly any type of baby animal — wild or domestic. Includes a chapter on first aid for sick or wounded animals and explains what one should know before releasing an animal raised to maturity to its original wild environment. Rodale Pr Inc., 1979, 272 p., illus., \$10.95, paper, \$7.95. [5]

**DEPRESSION: How to Recognize It, How to Treat It, and How to Grow from It** — Wina Sturgeon. The author, herself a victim of depression, offers guidelines for determining if you or someone you love is suffering from the disease, discusses its symptoms and causes, how and where to find help, types of therapy and living with and helping a depressed person. P-H, 1979, 233 p., \$9.95. [6]

**EUREKA!: An Illustrated History of Inventions from the Wheel to the Computer** — Edward DeBono, Ed. The important inventions throughout history — how they came about, who made them, and what effects they had. First published in the United States in paper in 1979. HR&WV, 1979, 248 p., color and b&w illus., paper, \$10. [7]

**THE EXPANSION OF MECHANIZATION 1725-1860, Vol 3 of A History of Technology & Invention: Progress through the Ages** — Maurice Daumas, Ed., translated by Eileen B. Hennessy. During this period of less than a century and a half there appeared all the characteristics of the industrial civilization in which we are now living. All the technological discoveries of this period are described in historical context, along with their inventors and the associated techniques that provided the groundwork for the discoveries. Line drawings and photographs enhance the text. Crown, 1979, 758 p., illus., \$30. [8]

**THE FORCES OF NATURE** — P.C.W. Davies. Explains the important concepts underlying the advances made recently in our understanding of the world within the atom. Cambridge U Pr, 1979, 246 p., illus., \$29.50, paper, \$8.95. [9]

**JEAN PIAGET** — Margaret A. Boden. A history and criticism of Piaget's ideas. Traces his theories of human intellectual development through stages from the beginning of practical intelligence in infants to logical thinking of adolescents. Covers Piaget's contributions to philosophy, biology, logic and cybernetics. Viking Pr, 1979, 176 p., \$11.95. [10]

**THE NATURAL HISTORY OF THE MIND** — Gordon Rattray Taylor. Examines in detail the intricate nature of subjective experience, in light of recent neuroscientific knowledge. Dutton, 1979, 370 p., illus., \$14.95. [11]

**A NEW LOOK AT THE DINOSAURS** — Alan Charig. A worldwide authority on dinosaurs, the author examines and explains for the layman the known facts and discusses the current theories about those mysterious and fascinating creatures. Mayflower Bks, 1979, 160 p., illus., \$12.50. [12]

**THE PASSIVE SOLAR ENERGY BOOK: A Complete Guide to Passive Solar Home, Greenhouse and Building Design** — Edward Mazria. Contains information needed to successfully design a passive solar building. Covers general solar theory and applications, systems design and performance calculations. Rodale Pr Inc, 1979, 435 p., illus., \$14.95, paper, \$12.95. [13]

**THE POND: The Life of the Aquatic Plants, Insects, Fish, Amphibians, Reptiles, Mammals, and Birds that Inhabit the Pond and its Surrounding Hillside and Swamp** — John G. Samson. A simple science book that attempts to show nature as it is without imposing any irrelevant human value judgments upon it. Knopf, 1979, 134 p., drawings by Victoria Blanchard, \$7.95. [14]

**RUNNING ON EMPTY: The Future of the Automobile in an Oil-Short World** — Lester R. Brown et al. An initial assessment by staff members of the Worldwatch Institute of the fast-changing oil outlook and its implications for the future of the automobile. Norton, 1979, 116 p., charts and graphs, \$7.95. [15]

**SATURN AND BEYOND** — Isaac Asimov. A simply written science book that discusses in some depth the four outermost planets and their satellites. Lothrop, 1979, 222 p., illus., \$7.95. [16]

**SHELLS: Treasures from the Sea** — James A. Cox. Explores the world of shells in text, line drawings and magnificent color photographs. Larousse, 1979, 255 p., color and b&w illus., \$19.95 [17]

**SOCIOBIOLOGY: The Abridged Edition** — Edward O. Wilson. In this shortened version of the original work, intended to serve the general reader and the student, the text has been trimmed to its essential introductory parts and the most interesting case histories while the basic structure has been retained. Because of the unusual amount of interest and commentary, the chapter on human social behavior has been left virtually intact. Harvard U Pr, 1980, 366 p., illus., \$18.50, paper, \$9.95. [18]

**THE TRUTH ABOUT SENILITY — AND HOW TO AVOID IT** — Lawrence Galton. To provide a clear picture of what recent research has discovered about aging, what is inevitable and what is not, and how relatively rare is true senile dementia (with which senility is commonly equated). T Y Crowell, 244 p., \$9.95. [19]

**WORLD CLIMATE: The Weather, the Environment and Man** — T.F. Gaskell and Martin Morris. A concise survey of weather and climate. Describes and illustrates the complex interaction of sun and earth, the continual restless churning of the atmosphere that makes the weather and the million-year-old fluctuations in climate. Thames Hudson, 1979, 144 p., illus., \$14.95. [20]

# A \$14.95 TAX SHELTER

Finding the right tax shelter is a tough assignment. Your shelter must comply with stringent IRS regulations. It's likely to be a highly speculative venture. And you often have to be very wealthy even to consider the idea.

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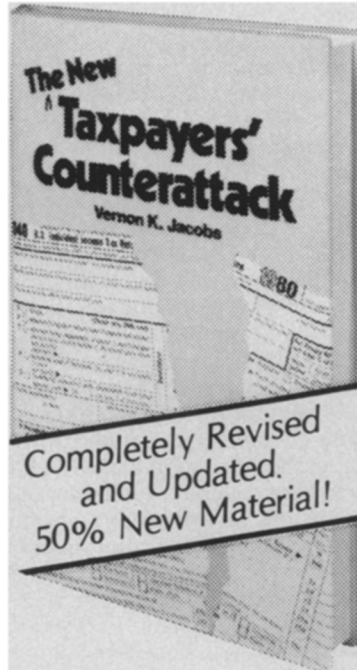
It's completely revised and updated. 50% of the content is entirely new—and did not appear in the earlier edition.

Author Vernon K. Jacobs is editor of Tax Angles, the authoritative monthly report of tax-cutting ideas for investors, small business people and self-employed professionals. An accountant and tax consultant to small business for 20 years, he has the almost uncanny ability to discover loopholes in complex tax regulations—then explain them understandably and concisely.

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How many of the tips in this book will be relevant to your needs?

This sampling should give you a good picture:

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- Amazing new "supershelter": investing in old buildings.
- The investment with a guaranteed long-term capital gain.
- Your home: the perfect tax shelter.
- How to shift taxable profits from this year to next.
- Hire your kids—and save a bundle in taxes!
- A tax shelter for corporate dividends.
- Avoiding the Social Security tax.
- Exchanges of assets: they're often completely tax free!
- Deductions for your car.

- Tax savings from a marriage—or divorce.
- Six ways to split income with your family to reduce your tax bite.
- How to defer investment income forever.
- The home office: it can still be a legitimate deduction.
- Slashing your taxes with a "modular corporation."
- Tax-free fringe benefits.
- The mail order business: a little-known tax shelter.
- Are you taking advantage of all available tax breaks on your home?
- Avoiding the double tax on corporate profits.
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