

Runner's World

MAY, 1975 • SEVENTY-FIVE CENTS

RW L 67042SMIT73200
RICHARD E SMITH
BOX 670
EL DORADO KS

ISSUE...

Double With Oregon

67042

99335

Photography
Of Marathoning

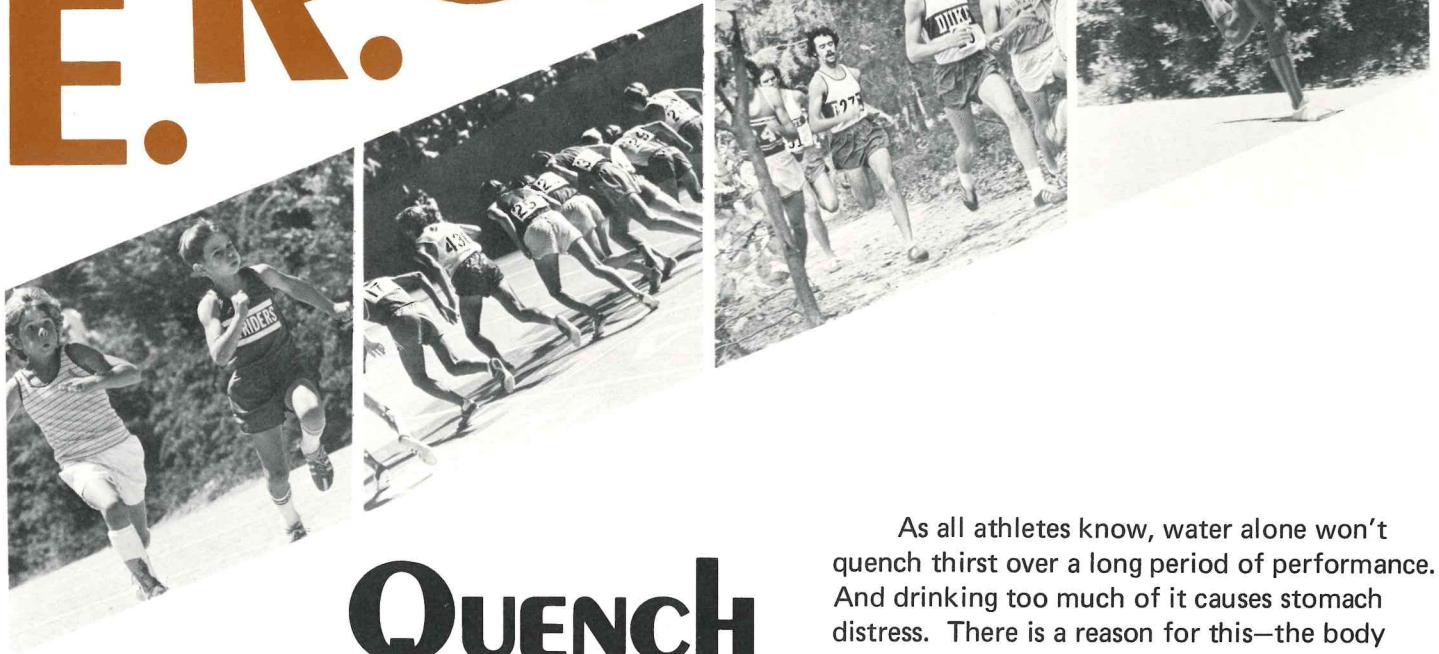
Training To New Peaks

The Games Runners Play

Meet The Tarahumara
Indians, The Ultra-Distance Kings.



E.R.G.



QUENCH YOUR THIRST!

ORDER FORM

Please check desired order:

- Sample (3 pkg.) . . . \$ 2.50
- Box (10 pkg.) 7.40
- Case (24 pkg.) 16.55
- Three Cases (72 pkg.) . 41.50

Each package makes one half gallon of E.R.G.
Postage included in all prices.

Name _____

Address _____

City _____

State _____ Zip _____

WORLD PUBLICATIONS
Box 8, Mt. View, CA 94040

As all athletes know, water alone won't quench thirst over a long period of performance. And drinking too much of it causes stomach distress. There is a reason for this—the body loses a lot more in perspiration than just liquid.

- **Electrolytes.** During exercise, the electrolytes of potassium, magnesium, sodium and calcium are lost through perspiration. They must be replaced if you are to perform your best.

- **Glucose.** Glucose is important for two reasons. Obviously, it's a source of energy for the body. But in addition, glucose helps speed the electrolytes through the digestive tract and into the bloodstream. Just the right amount of glucose will do this—too much and the fluid is drawn from the bloodstream into the stomach, causing cramps.

- **Vitamin C,** lost through sweating, is valuable for the proper absorption of glucose. **Buffers** are necessary to maintain the proper pH (acid-base balance).

E.R.G.—Electrolyte Replacement with Glucose—provides all of these things. In addition, E.R.G. has the same osmotic pressure, or concentration of molecules, as is contained in body fluids. This is vital for quick and painless absorption of electrolytes and fluids. Try E.R.G. today—it's the one athletic drink that actually delivers what the others can only claim to do.

NOW-168 SIZES IN A 9-OUNCE* PACKAGE.

SPEEDSTER

RUNNING FLAT

By New Balance



Bright blue with red saddle. Orthopedically designed for men and women. Competition or training. Lightweight flat durable sole and lightweight nylon upper with suede leather toe piece. Exclusive saddle design for longitudinal support. Perfect fit (sizes 4½ to 13, AA-EEE) conforms to heel and foot providing comfort, support and balance. Gives more "toe-room." Full length mid-sole, heel wedge and sponge inner-sole neutralize shock.



*Weight of a single size 9C shoe.

Order by mail. Immediate delivery and guaranteed fit. Full service factory repair.

MANUFACTURED BY
NEW BALANCE ATHLETIC SHOE, INC.
176 RW Belmont Street, Watertown, Ma. 02172

Please send _____ pair. Specify size: length _____ width _____. (Also include foot tracing and we'll guarantee a perfect fit.)

Enclosed is \$18.50 plus \$1.75 for postage & handling per pair. **Immediate delivery.**

Name _____

Street _____

City _____ State _____ Zip _____

Enclosed is \$18.50 plus \$1.75 for postage and handling per pair. **Immediate delivery.**



RUNNER'S World

Box 366, Mountain View, Calif. 94040

Office: 1400 Stierlin Phone: (415)965-8777

Volume Ten — May, 1975 — Number Five



COVER:

This Tarahumara Indian could be one of the greatest distance runners in the world. He can chase and kick this ball all day. Read about him on page 27. (Dr. Harold Elrick)

EDITORIAL STAFF

Editor: Joe Henderson
Assistant Editor: Dave Prokop
Editorial Assistant: Hugh Bowen
Medical Editor: George Sheehan, M.D.
Staff Photographer: George Beinhorn
European Photographer: Mark Shearman
Artist: Bil Canfield

PRODUCTION STAFF

Managing Editor: Bob Anderson
Production Assistants: Jan Herhold, Ian Jackson, Bev Robinson & Diana Yee

EXECUTIVE STAFF

Publisher: Bob Anderson
Advertising Manager: Diane Teshima
Subscription Manager: Rhonda Swan
Circulation Director: Debbie Jenkins
Customer Service: Barb Book
Financial Manager: Gregg Pullano
Bookkeeping: Judy Borrego
Accounting: Pat Perez
Office Manager: Lyman Dickson
Shipping Manager: Gene Yukawa

CONTRIBUTING EDITORS

Marc Bloom Hal Higdon
Janet Heinonen Hugh Sweeney

SPECIAL CONTRIBUTORS

Alan Claremont Jerome McFadden
Dave Cocksedge Dan Moore
Jack Daniels Rick Riley
Elliott Denman John Romero
Sid Gendin Ron Somers
Matti Hannus Tom Sturak
Ian Jackson Steve Subotnick
Kaj Johansen Jon Sutherland
Brooks Johnson David Theall
Ed Kozloff Joan Ulliot
Hollis Logue III Ken Young

CONTRIBUTING PHOTOGRAPHERS

M. J. Baum Jay McNally
Tony Duffy Stan Pantovic
Bill Herriot Doug Schwab
Jeff Johnson Paul Sutton
E. D. Lacey Steve Sutton

COPYRIGHTED. No material in this magazine may be reproduced in any form without written permission.

Second class postage paid at Mtn. View, CA 94040 and at additional mailing office (Burlingame, CA 94010).

PUBLISHED MONTHLY.

SUBSCRIPTION RATES—One year, \$7.00; two years, \$13.00 (same for US and foreign). Single copies and back issues 75 cents each.

CONTENTS

- 17 ALASKA, THE HOTTEST MARATHONING STATE—How the US and Canadian running populations are distributed.
 - 20 TRAINING TO NEW PEAKS—To reach new heights, you have to accept the slumps.
 - 24 TO THE LIMITS OF ENDURANCE—The attitudes and adaptations that let people run all day.
- | | | | |
|----|----------------------------------|----|----------------------------|
| 5 | Runner's World Editorial | 34 | Walking's Man of Influence |
| 6 | News and Views | 36 | The Games Runners Play |
| 10 | Interview: Bob Thomas | 38 | Medical Advice |
| 14 | Oregon Isn't Everyone's Paradise | 39 | City Series: Houston |
| 28 | International Cross-Country | 41 | Racing Highlights |
| 29 | Making a Brown Bagger's Special | 43 | June Coming Events |
| 30 | New Beginning at Age 65 | 44 | Looking at People |
| 32 | Two Fastest Teenaged Girls | 46 | Readers' Comments |

FROM THE PUBLISHER

In October, we are coming out with a directory which should be really good. It is going to be called *The SportSource Directory*. It will cover over 150 sports and there will be over 2000 books from these sports listed.

But besides this, we will also have a little blurb about what each sport is. For example, "What is curling?" We also will have an article covering some facet of the sport by a well-known author in the field. We'll list the magazines and newsletters on the sport, we'll have addresses of contacts in the sport, names and addresses of organizations, mail-order houses' addresses, and information about equipment and where you can get it. After all of this, we'll have a listing of the available books in the field. All the books can be purchased from World Publications, but we will also list the publisher so people can order from the original source if they wish.

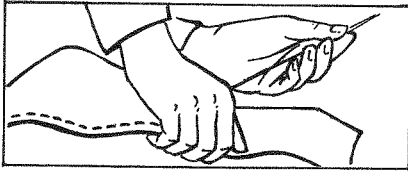
Right now, we are looking for more people that would be interested in contributing to this directory. If you are involved in a sport other than the eight sports we publish magazines in, drop me a note. We would like to find out from you the best books in the field, addresses and other information. We will gladly pay for your help. But don't put off writing. Our deadline is September for the first directory.

Even if you are not interested in helping us out on the directory, I would like to hear what you think of the idea. My feeling is that everybody needs a sport and we must face facts. Not everyone is going to enjoy running as we do. The only way to really enjoy and get involved in a sport is to know a lot about the activity. This is why we publish more magazines than just *Runner's World* and why we are interested in doing this catalog.

We are also looking for books to publish on any sport. If you have written a book or are thinking about writing one, drop me a line. We obviously must be selective in what titles we publish, but we are happy to read any and all manuscripts.

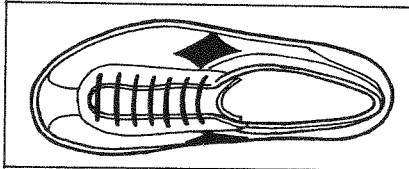
Bob Anderson

Made by German craftsmen . . . assuring custom quality features!



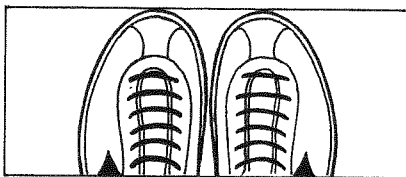
CRAFTSMANSHIP

All the world respects a craftsman. And in the world of shoes, it's the Germans . . . who still continue to put the required patience and pride of work into Lydiard shoes, much of it still done by hand!



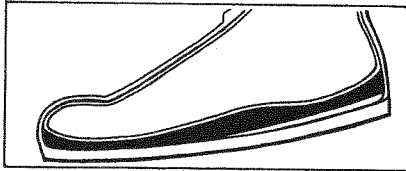
COOL LEATHER LINING

Soft skins inside give your feet just a little extra cushioning. Since few materials breathe as well as leather, a little extra coolness as well.



NATURALLY SHAPED TOES

Lydiard's roomy uppers aren't shaped like ordinary shoes. But they are shaped like your own natural feet. Your toes will stay healthfully uncrowded.



LIFT-OFF

Body weight shifts from your heel down the outer side, across to the big toe for lift-off. Lydiard's construction makes each lift-off less work.

Lydiard



1919 SAO PAULO – Latest creation by Arthur Lydiard, a really SUPER LIGHT (4-oz.) shoe EXCLUSIVELY for racing. Developed in 1974 and never before available in the U.S.

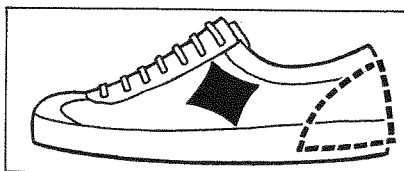
BLUE/WHITE. AVAILABLE IN SIZES 5½-13. \$34.95 postpaid

1976 LYDIARD "MARATHON" – An extremely light training and racing shoe.

BEIGE/RED. AVAILABLE IN SIZES 5½-13. \$29.95 postpaid

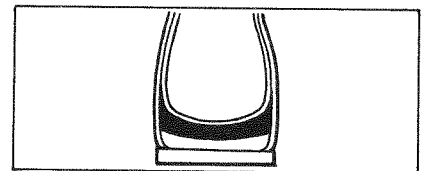
1130 LYDIARD "ROAD RUNNER" – This design will absorb the continual stress of covering long distances on the road.

BEIGE/RED. AVAILABLE IN SIZES 5½-13. \$29.95 postpaid



BUILT-IN HEEL SUPPORT

A specially constructed envelope for the heel. Relieves all pressure on the achilles tendon. With an adequate arch support.



BUILT-IN HEEL CUP

It's molded into the shoe. Prevents ankle sprains and achilles tendon inflammation. Protects against shin splints, bruises & spurs. Distributes the shock load.



Arthur Lydiard

SPORT INTERNATIONAL

8422 Fable Ave., Canoga Park, Calif. 91304

For Mail Order, be sure to enclose a foot tracing to insure proper fit, plus street shoe size.

Name _____
 Address _____
 City _____
 State/Zip _____

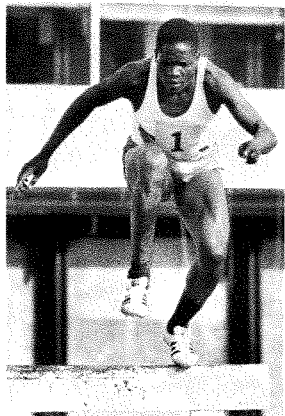
PRS.	MODEL	SIZE	UNIT PRICE	TOTAL PRICE

CALIF. RESIDENTS
ADD 6% SALES TAX

TOTAL ENCLOSED

Did You Know

That the experts say good running form starts in the hips and hands, and ends in the legs and feet? That just two Kenyan tribes have accounted for 42 Olympic and Commonwealth medals since 1963?



AFRICAN RUNNING REVOLUTION

112 pages
\$1.95

THE SPORT'S BIGGEST STORY

The biggest story in track and field this past decade has been the astounding breakthrough of the African runners in international competition. Here is the most complete and incisive book yet published on this phenomenal success story.

What are the African runners really like and how do they approach their events? If altitude training is the secret behind the success of the African runners (as so many believe), how is it that of all the people who live at altitude, the only high-altitude dwellers who have collectively made any mark in the track world are the runners from the East African tableland? What explains the incredible success story of Kenya's Kalenjin and Kisii tribes, who have accounted for all 42 of Kenya's Olympic and Commonwealth Games medals since '63 (Kenya has approximately 30 tribes in all). Can the Kisii and Kalenjin be super-runners?

These and a long list of other subjects are covered in this book by such writers as Philip Ndoo (himself one of Kenya's finest runners), Dr. Jack Daniels, John Manners, Geoff Fenwick, David Lewis (Ben Jipcho's former coach), Ross Kidd and Dave Prokop. A special bonus for readers will be Tom Sturak's in-depth story on Filbert Bayi—undoubtedly the most complete story yet written on the Tanzanian superstar.

Order yours now! 112 pages. \$1.95.

Runner's Monthly Booklet, Box 366, Mountain View, CA 94040

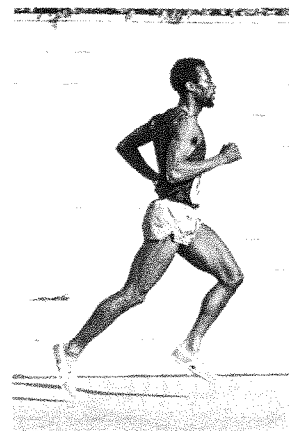
Please send me _____ copies of the **AFRICAN RUNNING REVOLUTION** at \$1.95 per copy. Add 15 cents postage.

Name _____

Address _____

City/State/Zip _____

California residents add 6% sales tax.



RUNNING WITH STYLE

48 pages
\$1.50

HOW DO YOU RUN?

This isn't a question of how far or how fast, of what you do in training and racing, but how you get there. How do you put your feet down? How do you use your arms? How do you look when you run?

Running isn't gymnastics or figure skating, and stylish running scores no points. It doesn't have to look pretty. But it must feel right for you. "Right" covers a wide range of individual quirks, and varies from person to person, event to event.

Running With Style lists the fundamentals of right running—styles which are individually fitted, speed adapted, mechanically efficient and relaxed.

The booklet concentrates on identifying correctable mistakes in running form and showing how to correct them.

Running is a complete, flowing action—not independent moves by the feet, legs, hips, arms, hands, etc. It works best when it's unconscious. But to improve overall form, runners need to take it apart like a broken machine, concentrating on fixing the faulty parts. Then go back on a kind of automatic pilot and think of more important things than each step.

Running With Style looks at the individual parts and the complete action. It's a valuable repair manual for your form.

Don't miss it! 48 pages. \$1.50.

Runner's Monthly Booklet, Box 366, Mountain View, CA 94040

Please send me _____ copies of **RUNNING WITH STYLE** at \$1.50 per copy. Add 15 cents for postage.

Name _____

Address _____

City/State/Zip _____

California residents add 6% sales tax.

TWO RIGHTS DON'T MAKE A WRONG

This is a lesson in how to read *Runner's World* magazine. To understand what it's trying to do, look back to a time when there wasn't any *RW* or anything like it. Back up 20 years, to the middle 1950s.

Running then meant racing and training for races. About the only people who ran were those who raced. The longest track race for high schools was a mile, for collegians two miles. Hardly anyone ran who wasn't in school.

Training meant running intervals and time-trials on the track. This was the latest in scientific methods, imported from Europe. Runners trained fast, but seldom long.

They ran in basic black spiked shoes of heavy leather. They ate steak before their races to gain strength.

Only the odd marathoner, training for Boston, did much of his running on the roads. Feet and legs were too delicate to handle the pounding of a hard surface.

Women were too delicate to handle any kind of running beyond a short sprint. Few of them even tried that.

These were the truths of the sport as we knew it 20 years ago. They never would have changed if the generations of runners since hadn't challenged them.

Runner's World has been one of the vehicles for this challenge, and intends to stay that way. It's a place to openly discuss, question, argue over the techniques of running.

In my nearly 20 years as a runner and five years of presiding over the *RW* debates, I've learned this: a basic truth of running is that there are very few basic truths. Few techniques apply to everyone equally. Few ideas are absolutely right or wrong.

So you see in the magazine contradictory information. One issue says slow distance training is best. The next month, an article makes the same claim for fast interval work. Or one month a doctor tells us to take 1-3 grams of vitamin C a day, then another offers evidence that the vitamin is worthless. Who do you believe?

Readers looking for definite answers don't know, and this bothers them. They tell me about it every day.

Most complaints are good-natured:

"The more I read about training, the more confused I get."

A few are harsh: "Unscientific, opinionated nonsense."

Some, like this one from a national long distance leader, are constructively critical: "Several runners in different parts of the country have voiced misgivings to me about some of the articles. I realize, of course, that you cannot please everyone. But some of the criticisms deal with the factual content of articles. These critics question whether the authors really know their subjects."

He adds, "Most professional journals have a hard-and-fast policy of sending all manuscripts to at least two experts on the subject for review and recommendations as to publishability." He suggests that *RW* do the same.

I'm more aware than anyone that some real clinkers of articles have gotten into print. A "review board" would keep that from happening. But I have reservations about its value in other ways.

This isn't a "professional journal" in the usual sense, and we don't want to make it one. It's a magazine for and by runners themselves—a forum for their ideas and experiences, opinions and educated guesses. So most of the articles come from runners who are neither professional writers nor professional authorities on their subjects. They're seeing things as runners see them, not as a book says they should. Sometimes they see things in ways contrary to the official party line in a field.

Blacks and whites, facts and fictions aren't firmly established yet in running theory (as the fast vs. slow training argument shows). There's still plenty of room for guesses and opinions, and there is a difference between what's wrong and what's simply controversial.

Admittedly, we've printed some wrong information (which isn't all bad, because the best new information often surfaces in response to misinformation). But far more often we print controversial material which "experts" judge to be wrong.

Some examples:

- *RW* used the terms "fun running" years ago. A college coach told me, "Running isn't supposed to be fun. Sex

is fun. Playing golf is fun. Running is damn hard work." And yet an entirely new class of runners has grown from the fun-run concept. If this coach had been on the review panel, the idea never would have been printed.

- Dr. George Sheehan has written since he started his medical column about the podiatrist's role in treating running injuries. His physician colleagues—particularly the orthopedic surgeons—ridiculed the idea that problems of the feet could affect the knees, hips or back. But now podiatrists are more help to runners than any other health group. They wouldn't have gotten any attention if a board of orthopods had been reviewing these articles.

- We were promoting women's long distance running before it became the thing to do. A woman doctor of physical education condemned our stand, saying women weren't built for marathon running and that we were inviting irreparable damage to their bodies. Now they have national and international championships in the event. We couldn't have given women's running any boost if this woman had been on the panel.

I could go on, but you see the point. The idea of reviewers is a good one, but how do we review the reviewers? How do we trust their views when the experts can't even agree among themselves what those views should be?

Obvious errors of fact should never see print. Prereadings by experts could prevent this. But my worry is that they might also want to stamp out controversy, making this another gray, conservative, professional journal of little more than esoteric interest.

Runners still have a lot to teach both each other and the experts, and this teaching can only be done in free-swinging discussions. *RW* is a forum for them.

"You were right from your side, and I was right from mine," Bob Dylan sings. That's advice to remember as you read this magazine. You can wind up in the same place from opposite directions.

Read the directions critically. Sift them through your own experience and prejudices. Then pick out the right way for you. You don't make progress by following in someone else's ruts. •

Run Gently, Run Long



Run Gently, Run Long is a little about racing success and how to achieve it. But it's mostly about running longevity and how to last. Running, says author Joe Henderson, is too good to be thrown away for a fleeting career as a racer, no matter how temporarily rewarding that career may be.

Run Gently, Run Long talks about the same things Henderson discussed in his famous "LSD" book five years ago. But this is not "LSD Revisited." It's rather a new definition of long slow distance, correcting wrong ideas and filling in holes left by the first book.



Joe Henderson is uniquely qualified to write such a book. He's editor of *Runner's World* magazine and an active runner himself.

Henderson skillfully brings readers up to date on the "state of the art" in gently-paced distance running by alternating chapters on his own experiences and the general principles underlying them. The experiences are personal and fleeting, he writes. The principles are universal and lasting.

RUNNER'S WORLD
P.O. Box 366, Mt. View, CA 94040

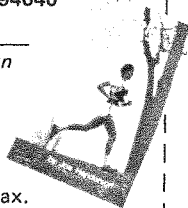
Yes! Please send me _____ copies of *Run Gently, Run Long* at \$2.50 per copy, plus 15 cents postage and handling. I enclose full payment. (California residents, please add 6% sales tax.)

Name _____

Address _____

City _____

State/Zip _____



NEWS & VIEWS

The "Like" Affair

I don't love running. I never did love it and don't expect ever to come to love it. Is something wrong with me?

Over the years, many people have professed their great love for running. Recently, love has gushed forth onto the pages of track magazines. People are writing poetry about long distance running. They are having "deep communion with nature." They are saying that running is a mystical experience that can't be appreciated unless you are a runner. Words cannot describe its magic. Runners are bragging about the physical deprivations they suffer for the sake of the incomparable experience. Running is the new way to nirvana.

Liking running doesn't seem enough. What's to like? On the face of it, running distances is drudgery. Apparently, to do it you must learn to appreciate its "deeper" value. But I just can't rid myself of the suspicion that people who "love" running are deceiving themselves and others. Maybe they train with a fanaticism that eludes ordinary justification.

It is embarrassing to be known to run 150 miles per week even in the most miserable weather, so it is useful to have a justification that will impress the uninitiated. Maybe a man of 65 years feels a little silly running down the street in short pants. So he feels obliged to heap scorn on men 30 years his junior who would collapse trying to catch a bus. He needs to let people know of his contempt for cigarette smokers and whiskey gulpers. Somehow, it isn't enough for him to think to himself that they like smoking and he likes running.

Whenever my running mates fail to show up, they make an excuse the next time I see them. They feel they owe it to me although they know I get along perfectly well without them. The excuse is always of the form "something came up." They feel it would reveal a character deficiency if they said they were in the mood to watch *Gilligan's Island* on TV. Actually, I don't care. I won't think less of them, but they don't believe me. They think that if I run six or seven days each week for 100 straight weeks, I must have a mad passion for the stuff that makes me incapable of tolerating dilettantes, and I will so regard them. I tell them that I

kind of like to run but it is no big deal. It is okay to take a day or two off, even a year or two off. During a 24-year stretch, I've done this a couple of times myself.

If they don't feel like running, I swear they don't owe me any apologies. They can face me with head held high. As a matter of fact, I really prefer that most people don't run. I sense that most competitive runners have all kinds of conflicts. The best thing they can do is to retire. As for the exerciser, he too is better off not running.

People who know that I run often tell me they are taking up jogging. They want my advice and approval. I don't approve. And my advice is that they take up paddleball, swimming, tennis or something else that they can both enjoy and get health benefits from. Ninety-nine out of 100 people who take up running for health reasons quit—maybe in one week, maybe in 15 years. Either way, they wasted their time.

If you are 30 when you begin and 45 when you quit, then the 15 years of conditioning will be down the drain in two years, maybe less. For whatever reason, is a fact of life that most people do not like running to begin with, and they cannot get the hand of liking it no matter how long they try. What's wrong with paddleball, anyhow?

I have been told that given my casual attitude it is no wonder that I never became better than I did. A person who will take the day off from running for "no better reason" than that he'd rather go to the movies lack the self-discipline required to succeed.

To this I reply that I wouldn't have been very much better even if I had the discipline. Perhaps this is arguable. But why should I be criticized for my "failing?" Slaving after success might have cost me the fun I get from running. Conceivably, the great runner finds that success makes it all worthwhile. For the average person, it is essential that running not be composed of two parts drudgery, one part sacrifice and 12 parts delusion—the delusion being necessary to put up with the drudgery and sacrifice.

For the average person, running makes no sense as an all-consuming passion. He can set competitive goals and work fairly hard to achieve them, but the question is: who is boss, the goals or the person?

I call for a moratorium on the love delusion. I call for a Society of Sane Runners. To join, just get a running start with the words "Like it—don't love it." •

From Sid Gendin

Let Everyone Run

Minty, an Englishman, won the 1973 AAU six-mile championship while a student at Eastern Michigan University. He comments here on Bob Anderson's January "From the Publisher, which proposed that US titles go only to Americans.

One of the functions of the AAU is to improve track and field in the United States. One method is to assemble the best teams available for international competition. The best team will obviously come from those who do best in the most competitive races. This means encouraging everyone, including foreigners, to compete in the selection races (the AAU championships). Those who make the team will have proven their ability. Those who do not will have gained valuable experience at international-level competition.

Rick Riley is correct ("Reader's Comments," Feb. 75). Foreign runners do compete for prestige and experience (though they do not get the medal if they finish in the first three). American athletes should be doing the same. A trip is to be used to earn more prestige and experience, not a vacation.

The AAU is in a unique position. Many foreign athletes reside in the United States. The AAU should encourage them to compete by paying their expenses under the same standards they pay Americans. European countries pay thousands of dollars for foreigners to stimulate competition in all meets, including the national championships. The AAU can do the same for a fraction of the cost.

Past results prove the AAU does not stimulate competition as the European meets do. Every year, European national championships are dominated by runners from different continents. Last year, seven Americans won British Championships, seven Americans won French Championships and only eight foreign athletes placed first, second or third in the US Championships. Many of them live in the United States.

As a United States track fan, I urge the AAU to bring more foreigners to the AAU championships to stimulate greater performances. Let Steve Prefontaine have his three-mile race at Eugene. Give Rick Wohlhuter someone to run against. Make the milers run as fast we know they can, and give the fans a meet to get excited about.

From Gordon Minty

Bring Your Shoes "Back to Life"

AT HOME...
OVERNIGHT WITH

GOO™

SHOE REPAIR

ALREADY IN USE BY HUNDREDS
OF THOUSANDS OF TENNIS PLAYERS

This amazing GOO restores your worn or critically injured shoes back to a new and useful life. GOO repairs are tough yet completely flexible!

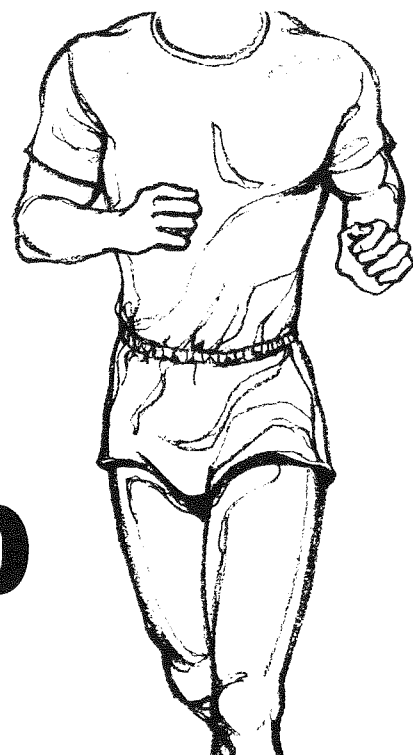
TREMENDOUS STICK-POWER
GUARANTEED NOT TO PULL OFF

EACH TUBE
GOOD FOR MANY REPAIRS

SEND \$2.95 + 25c POSTAGE TO

ECLECTIC PRODUCTS
P.O. BOX 476
LOMITA, CALIFORNIA 90717

ALL ORDERS
SENT WITHIN
24 HOURS



Can be used to Build-Up worn areas on sides, heels and toes.

Repairs splits or tears in canvas, nylon, or leather tops.



GOO is jellied for easy application.
NO DRIPS...
NO MUSS!



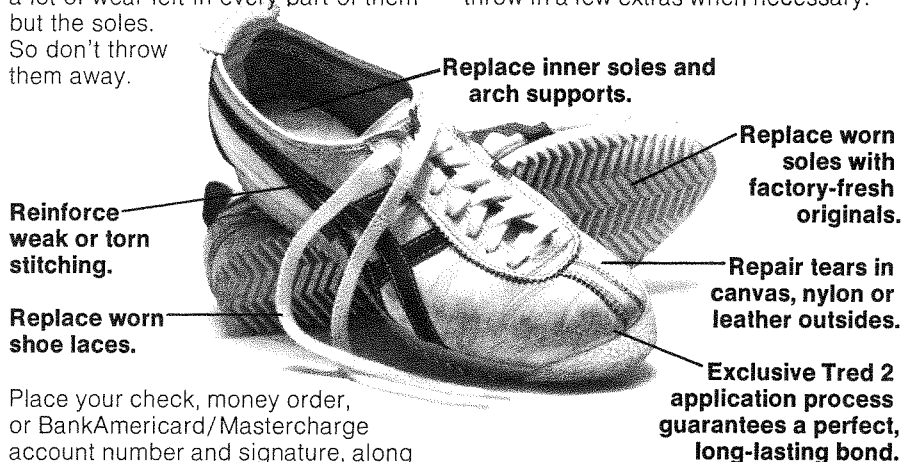
APPLIED DIRECTLY FROM TUBE TO WORN AREAS... DRIES OVERNIGHT TO A TOUGH, RUBBERY COATING!

Introducing your old running shoes.

If you're like most of us, you hate throwing away an old pair of running shoes. And for some good reasons. You paid good money for them. It took more than a few hard miles to break them in properly. And there's probably a lot of wear left in every part of them but the soles. So don't throw them away.

Send them away. For \$10.95, we'll replace your worn-out soles with factory-fresh originals. (Tretorn, Adidas, Puma, Tiger, Nike, Head, Hyde, Converse.)

And to make sure your old tops last as long as our new bottoms, we throw in a few extras when necessary:

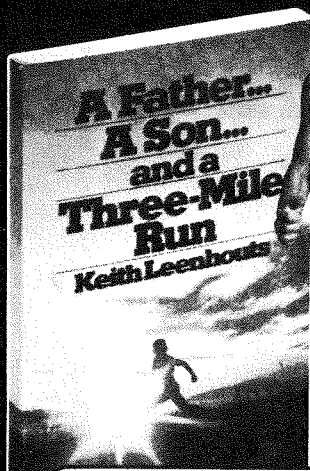


Place your check, money order, or BankAmericard/Mastercharge account number and signature, along with your name and address, inside a shoe and mail them to: Tred 2, Dept. 105, 111 Homer Avenue, Palo Alto, CA 94301. We'll have them back to you promptly. And already broken in.

tred₂™

Don't ask me why I wrote this book. Ask me why I loved my son 'til it hurt.

I wrote this book because I found the power of love. And how it helped my son to victory over failure. Love is what being a father is all about: real compassion and real encouragement. Being a father for any other reason is not where it's at. This is my true story of how God's Word and love worked changing lives in young people nobody cared for. This book can start you literally reading and loving for your life. It did for me. Read it for yourself. No. 10401, \$4.95. From your local bookstore or order tollfree 24 hours, 1-800-228-9700, ext. 211 (with \$5 minimum order).



Formerly published in October, 1974 in Reader's Digest as "Race for Love."

Pat Boone: "In a day where there's so much heartbreak, and depression, and fear and failure — it's a fantastic spiritual tonic to read about Bill and his father."

ZONDervan PUBLISHING HOUSE
1415 LAKE DRIVE, SOUTHEAST
GRAND RAPIDS, MICHIGAN 49506

Olympics of 1984

Construction is continuing on the \$3 billion Olympic Stadium in Los Angeles despite the worldwide famine.

"The 1984 Olympiad must go on," IOC president Killigem told reporters. "The spirit of amateurism will carry us through these hard times," he said.

Killigem tried to inspect the construction site, but his limousine was halted by hungry crowds of Californians attempting to loot the expensive vehicle in hopes of finding a leftover cheeseburger or two.

Insisting that the Olympics would be good for the starving world's morale, Killigem said, "There's nothing like watching the drama of runners circling the track to take your mind off the hunger pangs."

USOC president "Uncle" Sam Gold expressed confidence that the US would win the Olympics over the Russians and the rapidly improving Chinese.

Gold said, "Our top marathoner, former champ Hank Longer, is a shoo-in for another gold medal. The food shortage has brought his weight down from a bloated 135 to a svelte 93 pounds. The decreased wind resistance and decrease in weight should make it easier for Hank to cover the 26 miles 385 yards."

Gold privately revealed his relief that the famine might also eliminate any victory stand protests. "Our top 400-meter man's arms are so skinny from malnutrition that he won't have the strength to raise his arm over his head after winning."

Shoe companies which have in past Olympics given runners money to wear a certain brand of shoes are this year offering German potato salad to runners as an inducement to wear their brand.

Rumors that the 1984 Olympic medals would in reality be foil-covered chocolate candies caused a last minute rush in applications for the US Olympic Trials. One despondent 10,000-meter man who missed the qualifying time by two-tenths of a second was quoted as saying, "Chocolate candy, the chance of a lifetime and I missed it."

Though times in all running events are expected to be slower because of hunger-weakened runners, Olympic officials are claiming the races should be as exciting as ever, if not more so. One USOC official said, "The race for the medals will be wide open as many of the favored runners might starve to death during the preliminary heats."

Emory Bandage, former IOC president, reached at his palatial home stated,

"It does my heart good to see the Olympics go on despite the hardships we all are facing. Pierre De Courbertin would be proud to see amateurism live on."

From Ron Somers

Weight Handicaps

The olive wreath was placed on Runner A's head moments after "winning" the Scenic Beauty marathon in 2:40. The awards committee swarmed around him and extended warm congratulations. As more runners completed the course the crowd ebbed and flowed around and away from the finish line (and the rapidly disappearing refreshments).

Runner B trudged in at 3:45. He was recognized and encouraged only by his family. He was just in time for the awards ceremony.

As the race committee was com-

pleting the packing of the race materials and cleaning up the refreshment area, Runner C arrived at the finish line in 4:01.

All runners know that each of these people was a winner. In fact, they all could have received first place awards if they were first in their sex or age category. Yet one category that would have given an interesting twist to rating these finishers was overlooked: the running rate of work. In this case the rate of work "foot/pounds per minute" or mile/pounds per minute" done by the racer is significant and easily determined by this formula:

Running Rate = Weight of racer (pounds) times race distance (miles) divided by race time in minutes

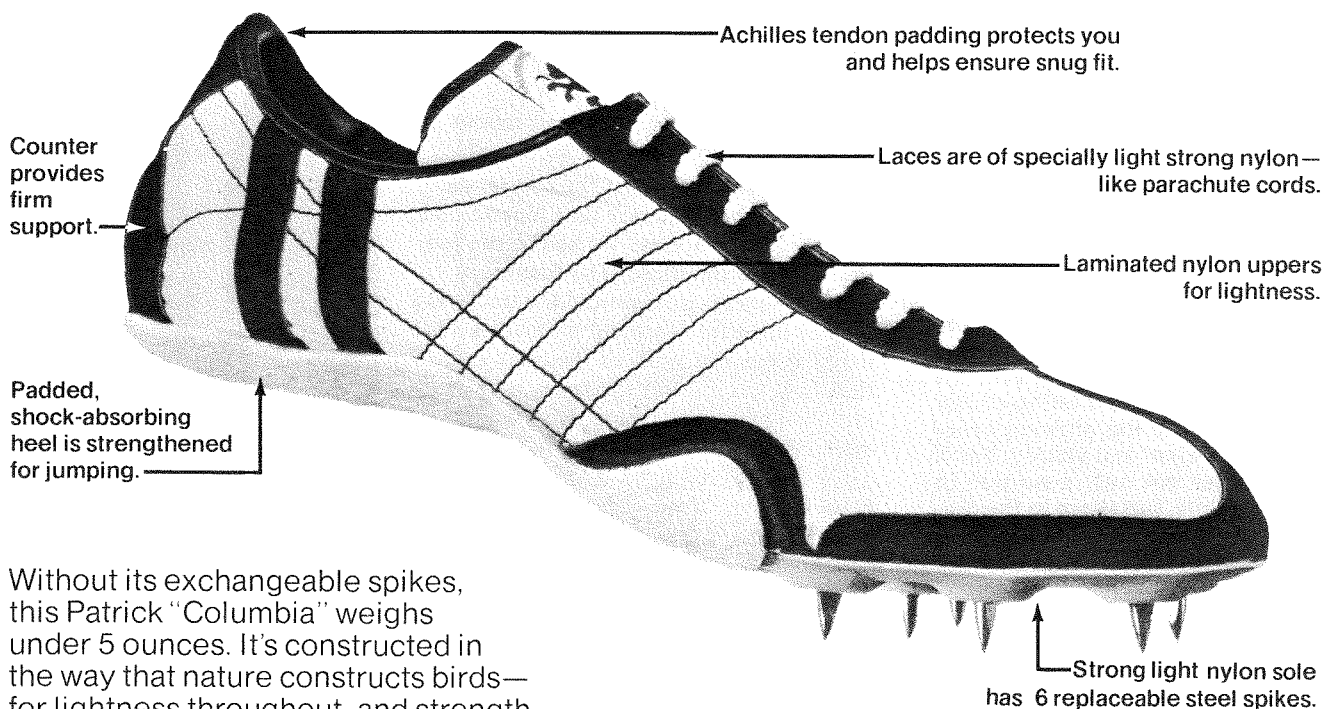
The rates for this race are: Racer A (120 pounds), 19.665 mile/pounds per minute. Racer B (170 pounds), 19.8108 mile/pounds per minute. Racer C (270 pounds), 29.37 mile pounds per minute.

The real winner—Racer C—should have been recognized for the truly super effort.

From Jerry Anderson •

The readers write this magazine. Nineteen free-lance contributors have articles in this month's issue, and nine are in for the first time. Obviously, we need lots of new material, and there is plenty of opportunity here for fresh talent to break in. Payment for regular articles ranges up to \$40 per published page. The standard fee for interviews is \$50, for "City Series" \$20, and for "News and Views" \$10. For a copy of writers' guidelines, contact: Editor, RW, Box 366, Mountain View, Calif. 94040.

The 4³/₄ oz. racing shoe — by Patrick



Without its exchangeable spikes, this Patrick "Columbia" weighs under 5 ounces. It's constructed in the way that nature constructs birds—for lightness throughout, and strength.

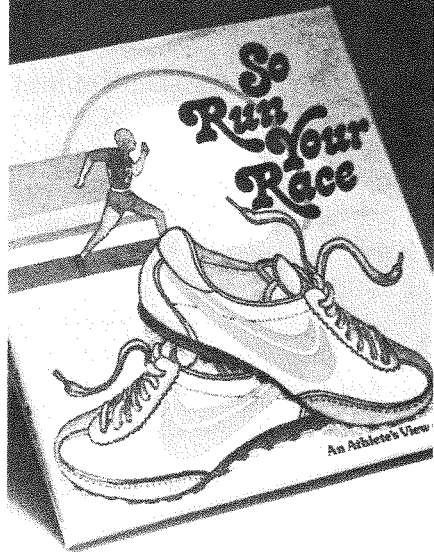
Which is why runners seem to fly in them. Athletes say, "We get good support all over the shoe." "When you lace it up the shoe really wraps up your foot." "It adapts."

Patrick athletic shoes are made in France, and have been known in Europe for over 25 years—for speed, styling, reliability. Other track shoes available in natural leather & suede. Run with Patrick and see how you take off.

AL ACTION & LEISURE INC.

45 East 30th St., N.Y., N.Y. 10016
Tel. (212) 686-8052

**An athlete's
walk with God
comes alive
in...**



This outstanding athlete, speaker and author, has captured the essence of the sport experience in this beautiful volume of free verse and photography! *So Run Your Race* artfully portrays the mental, emotional, physical and spiritual facets of an athlete's life from childhood to maturity. The author examines the joy and beauty of movement itself, the loneliness and suffering of discipline, and the growing process of defeat and victory. You'll discover not only a portrait of an athlete, but share in the dramatic parallels between a Christian's walk with God and the life of a committed athlete. *So Run Your Race* also makes a beautiful gift book for anyone interested in athletics! Cloth, No. 18124z, \$4.95; Paper, No. 18124p, \$2.95.

**AT YOUR BOOKSTORE
OR ORDER TOLL FREE
800-228-9700**

(You may need to dial prefix 1 from your area).

ZONDERVAN PUBLISHING HOUSE
OF THE ZONDERVAN CORPORATION
GRAND RAPIDS, MICHIGAN 49506

BOB THOMAS

Right now, Bobby Thomas is one of the hottest junior runners around. He is only 18 and in the last year has gone from a 9:06 high school two-miler who didn't qualify for the California state meet to International junior cross-country champion.

Last fall Thomas went undefeated on the junior college level (he ran for Glendale, Calif., JC). At the AAU cross-country meet, he placed a respectable 25th overall and 19th American. With his victory in the national junior cross-country championships he won a trip to the Internationals in Rabat, Morocco. However, before Bobby even went overseas he turned in some excellent early-season times. Indoors, he ran 8:51 and 8:52 two-miles. Outdoors, he set a national JC three-mile record of 13:36.4.

Thomas came home as a convincing winner at Rabat. I interviewed him a few days after that race.

RW: What were your impressions of the International meet in Morocco?

Thomas: I thought the course was great. They held the race on a hippodrome, a race track for horses. We had to run four times around the track. The first loop was a complete circle around the track, and the last three times around we made a detour through the inside of the track and then back out. Inside the track, we had a little five-meter rise then down into a ditch where he had to climb out.

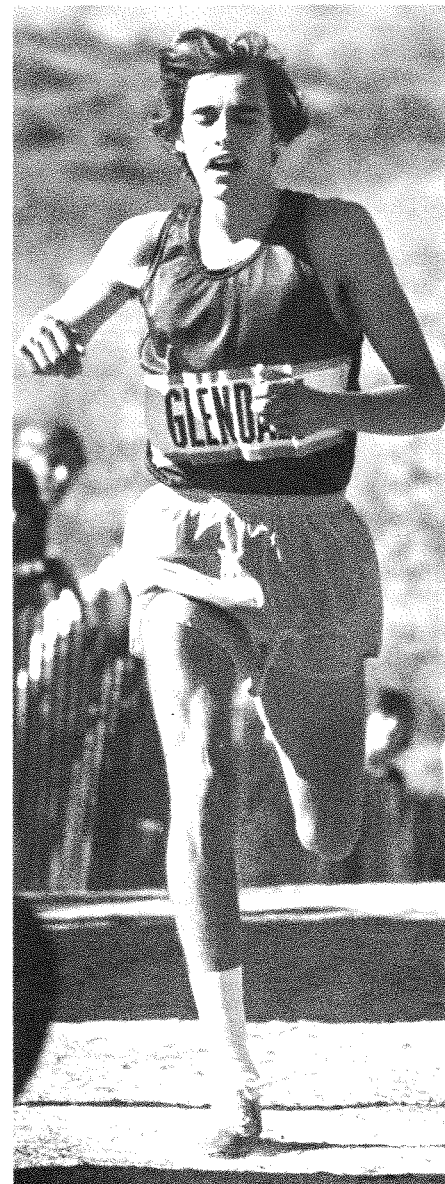
In the race I just stayed back at first because all the Moroccans went out on the first lap and into the lead to impress their king. Then after the first loop, they just dropped back. That's when Tracey (or Ireland), the Spanish guy (Gonzalez) and I pulled away.

RW: How good was the competition, like Tracey for example?

Thomas: I heard that Tracey has run 8:52 for two miles and he has got third the last two years now.

RW: Back to the race...

Thomas: At the two-mile mark with two laps to go, I just increased my lead and nobody went with me. I kept gaining yardage, so by the time I finished I was 150 yards ahead.



RW: I remember you last year as a 9:06 two-miler who didn't make it to the California high school championships. Now in less than a year you've gotten 25th at the AAU championships, a national JC three-mile record and a victory in the International cross-country. How do you explain all this improvement?

Thomas: A lot of training, a lot of running. Mark Covert helped me over the summer. We did a lot of running together before I came to Glendale JC. The summer before, I ran all alone because I didn't have

anyone to run with. I was just beginning. This year, I was ready and I put in lots of hard miles, usually about 140 miles a week. It also really helped a lot to have someone to run with. It's good to have your coach run with you, too.

RW: What was Covert's role. Was he just a running partner?

Thomas: He was my coach. He was the cross-country coach at Glendale JC, and whatever he said, I did. I had a lot of confidence in him. I thought he would get me though, and he did.

Now I have Mr. John Tansley helping me. He helped me after the junior nationals and into the International meet. But the reason I improved is that I've just matured and I've worked a lot harder. Then I won a couple of races and got confidence in myself. In the past, I used to get nervous going into meets. But now I'm confident because I've done the work, and if I get beat it's just because someone is better. Getting nervous didn't help.

RW: Do you have any special mental preparation before a race?

Thomas: For Morocco, I had a red painted sign that said "you will win at Morocco" to remind me, and I just usually pray a lot.

RW: Do the Glendale guys train with you?

Thomas: It's funny at school, because no one else wants to do my workouts. I run some with Covert, but I run alone mostly. I don't try to push it too hard, but I end up alone anyway.

RW: What's your regular training pace on the long runs?

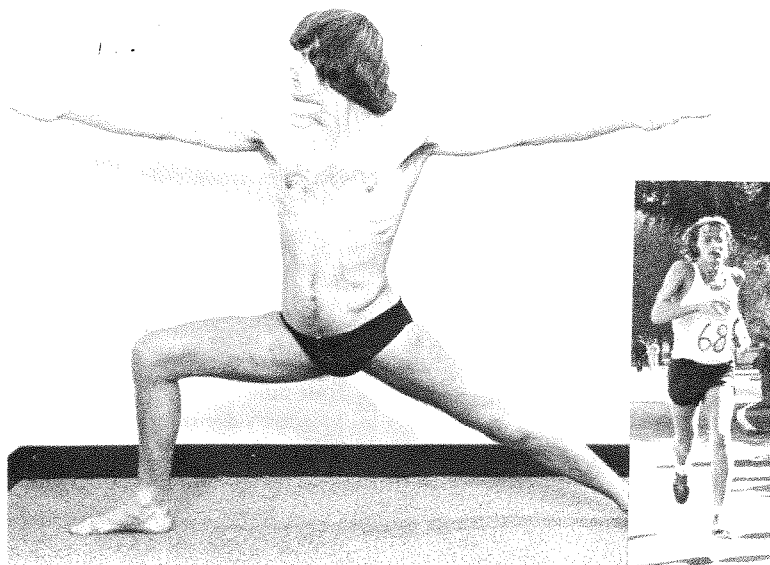
Thomas: I go about six-minute pace, but when I push it I'll get the pace down close to five minutes a mile.

RW: As far as training goes, do you follow a set pattern?

Thomas: Uh huh. There are three different training periods. One is just heavy mileage like how I do in the summers—140 miles a week. Then there is a schedule I follow when I'm doing intervals, and a separate schedule when I'm peaking.

During the interval season, I'll go to the park on Mondays and Wednesdays to do the long intervals. Then on Tuesdays and Thursdays I'll do my distance runs. On Saturdays I'll take a hard run in the morning, and on Sundays I'll go out for a 20-miler. This is all on top of an eight-mile run every weekday morning.

When I back off, I'll cut my morning runs down to five miles, shorten the

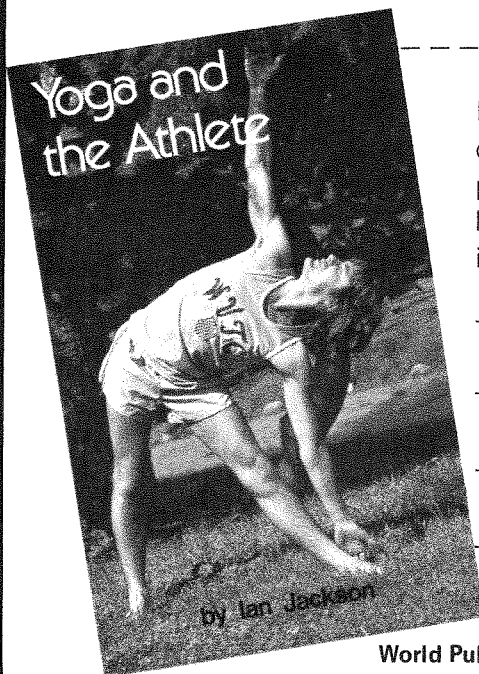


Yoga and the Athlete

Yoga has much to teach athletes about flexibility and sensitivity. Yoga helps you develop a more limber, supple and efficient body. But beyond that, it expands your awareness of the never-ending conversation going on between that body and the mind that guides and directs it.

By "playing the edges" of your body's limits, but never going beyond them, by stretching (both literally and figuratively) without straining, you too, can push back barriers you once thought were immovable, and perform as you never have before.

This book affords a unique, personal insight into yoga, and is written with a special understanding of the problems and needs of the performing athlete. The gripping story of a marathoner's search for success, combined with the practical information on the special field of yoga for athletes, make this both entertaining and instructive reading. 96 pages, illustrated, published April, 1975.



Please send me _____ copy(ies) of *Yoga and the Athlete* at \$2.50 per copy. Add \$.15 postage and handling charges. (California residents add 6% sales tax.)

_____ name

_____ address

_____ city

_____ state/zip

World Publications, Box 366, Mt. View, CA 94040

intervals, and cut down my distance runs. I'll usually relax the pace a little bit, easing up on the gas.

RW: So despite what you call cutting down, you are still getting pretty big miles.

Thomas: I always get at least 100 miles a week.

RW: Have all these miles caused you any serious injuries?

Thomas: Never. I haven't got hurt yet. I get the same pains and aches everyone else gets, but I've been really lucky not to have anything serious go wrong.

RW: After all those miles last summer, what training did you do in the fall and winter?

Thomas: I kept the mileage up and started intervals two or three times a week. I never went onto a track, though. We do all of our intervals in a park on the grass. Usually we would do long repeats like 880s or 1320s. We just kept doing them. I didn't peak, though, for the JC state meet like my teammates did because my season lasted two months longer than theirs. I just kept running through. The only time I peaked was for the junior nationals.

RW: How about the AAU cross-

country championships? Did you "run through" that one?

Thomas: That was the week after the state meet, so I quit doing intervals and I just did relaxed mileage. Then I went right back to the intervals for the junior nationals (in December). I was up to 120-130 miles a week through the whole season.

RW: I remember seeing you at the AAU meet in 13th place with a mile to go and I kept wondering how six miles would effect you as compared to the four-mile races in JC. I knew it would be tough considering that two-thirds of the last mile was uphill.

Thomas: Yeah, it was tough.

RW: Did you have specific strategy or goals for AAU?

Thomas: I was just going for the experience. Covert said to get out fast and I did. It helped because they had to pass me instead of me passing them.

RW: Tell me about the AAU junior championships.

Thomas: The course was as flat as can be, and it was cold and foggy.

RW: How about the barriers or hurdles?

Thomas: The hurdles I didn't mind. Covert told me just to attack them

and if I fell down just to get up and keep going. He told me not to chop my steps at all, and I just jumped when I thought I was ready.

In the race, I made the mistake of starting too late. They wouldn't let us see the course before the race. At one point, it was hard to follow and I had to stay with the pack or I would have got lost out in that fog on my own. I started my drive a mile before the finish and I should've started two miles before the finish, but I didn't know the course.

RW: What are your plans for the rest of the track season?

Thomas: My ultimate goal is to make the USA junior track team. Things are happening kind of quick. I have a lot of plans in my mind, but I really don't know where I'll go from here.

RW: Have you had any offers from four-year schools yet?

Thomas: They're starting. I'm just looking at all the offers and getting all the information before I decide if I'll go away to another college at the end of the season.

RW: It might be worth your while to go away and move up to better competition on the university level.

Thomas: I'll just have to wait and see what happens. ●

T-shirts for running

\$3.50 ea. or 3/\$10.00
Trimmed in either navy or red
SIZES: A, M, L, XL.

Mail to: PROS CORNER
280 W. BROADWAY
WAUKESHA

Name _____
Street _____
City _____
State _____ Zip _____

Please send me ___ T-Shirts @ \$3.50
ea. or 3/\$10.00. Enclosed is \$ _____

Cash Check Money Ord.
(Please add \$.50 for handling.) Wisc.
residents add 4% sales tax.

Qty	Emblem	Size	Trim-Red/Navy

AT RUNNER'S MECCA...

YOU'RE GRANTED MORE THAN THREE WISHES...

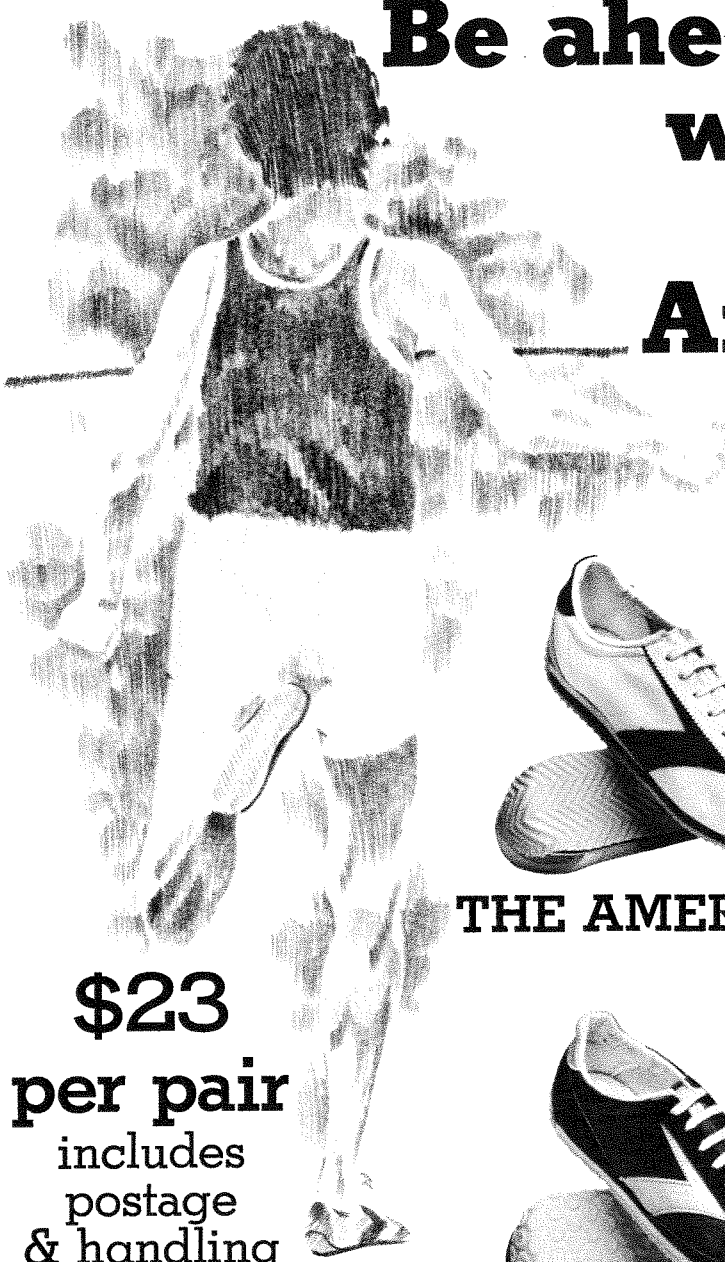
- training on scenic plateaus ranging in elevation from 7,000 feet to 10,560 feet.
- occasional speed running at lower elevations (2,400 feet to 5400 feet) within minutes of center headquarters.
- periodic low keyed road runs and marathon junknets to prove the effectiveness of your altitude sojourn.
- family and team rates, free lodging for every fifth runner in exchange for supervision of runners. (Coach counselor Program)
- supervision and coaching for minors.
- transportation for planned group activities.
- luxury apartments complete with linen service, color television, thermostatic heat, woodburning fireplaces, fully equipped kitchens and etc.
- self-prepared meals in our modern kitchens or restaurant meals at a flat 20% from listed menu prices.
- tutoring and educational programs by such competent runners and coaches as Chuck Smead: Biology and Outdoor Education; Ed Ford: Aerobic Physical Education (Chemetaka Community College); and Bruce Gove: Mathematics. Certified instructors, with an interest in running, are available in almost every imaginable area. They establish and maintain a close and meaningful rapport with the students with whom they work. We are applying for accreditation at the present time and will work with your local schools to provide you with credit. Course offerings will depend on the interest shown by students and parents.

* THE ASTERISK INDICATES AN OPTION AT ADDITIONAL COST.†

PLEASE WRITE AND TELL US HOW WE CAN BEST SERVE YOUR RUNNING NEEDS.
AT RUNNER'S MECCA YOUR WISH IS OUR COMMAND!

BOX 2196
MESA, ARIZONA 85204
PHONE: (602) 834-0496

Be ahead of the field with the finest, top quality, American-made training and jogging shoe.



**THE AMERICAN
295**

SIZES: 4 thru 12 including half sizes; size 13.

- White softy leather with green suede Brooks stripe and heel tab.
- Full padded heel and collar.
- Towel socklining and foam arch support.
- Lightweight traction sole wrapped around heel.
- Soft crepe rubber midsole and heel wedge.



**THE VILLANOVA
400**

SIZES: 4 thru 12 including half sizes; size 13.

- Strong blue nylon upper with gold leather Brooks stripe and heel tab.
- Full padded heel and collar.
- Towel socklining and foam arch support.
- Lightweight octopus traction sole wrapped around heel.
- Soft crepe rubber midsole and heel wedge.
- Blue suede leather tip and counter pocket reinforcement.

\$23

per pair
includes
postage
& handling

BROOKS

USE COUPON TO ORDER



The ATHLETIC ATTIC
2415 N. Monroe St., Unit 203
Tallahassee, Florida 32301

	QUANTITY	SIZE	SHOE COLOR
Here's my order...	<input type="text"/>	<input type="text"/>	295 (White with Green Trim)
Send Brooks Shoes to...	<input type="text"/>	<input type="text"/>	400 (Blue with Gold Trim)
	Enclosed is my check for \$ _____		

NAME _____

ADDRESS _____

CITY _____ STATE _____ ZIP _____



OREGON ISN'T EVERYONE'S PARADISE

by Bob Welch

Welch is a newspaper reporter who lives and works in Eugene, home of the University of Oregon.

The University of Oregon's Bob Rust ran a mile last spring in 4:03.1. Had he been running for Oregon State, Washington or Washington State, the time would have been fifth best in the school's history; for Stanford or USC, the sixth best. At Oregon, the time earned Rust seventh place in an intrasquad meet.

Mark Feig won some 40 straight races and four state titles in high school. After 16 races at Oregon, he had twice broken four minutes in the mile and was often in the low fours. He had never won.

Rust and Feig are just two of many talented Oregon distance runners who have found their experience at the nation's most prestigious distance school both rewarding and frustrating. Reward-

ing because their times have improved considerably, frustrating because the bulk of competition at Oregon has sharply limited their opportunities to win, and in some cases even to compete. For such reasons, it may be said that while Oregon may be the best place for some runners, it is the worst place for others.

Nestled in the douglas firs of the Willamette Valley, Oregon has been painted with a dream-like image, a distanceman's paradise where world-class runners are manufactured overnight. But such preconceptions abruptly vanish when newcomers find that going to Oregon to run distances is a little like going to southern California to show off a sun tan. So stiff is the competition that 14 minutes won't always win a junior varsity three-mile, a sophomore who ran a

4:07 mile and an 8:57 steeplechase did not earn a letter, and a handful of runners good enough to place in a Pac-8 dual meet often end up watching the action from the grandstands.

The depth of talent is quietly satisfying to cross-country and track coach Bill Dellinger. When asked, he will modestly tell you that if NCAA rules allowed it, he could have rounded up a second team that would have finished in the top five—if not right behind the first-place Oregon team—in last fall's NCAA cross-country championships. Oregon's abundance of competition, Dellinger believes, is the main reason it has turned out such an impressive fleet of runners.

"Take, for example, cross-country," Dellinger explains. "We've got 30 runners fighting for seven spots. That's got to breed competitiveness. It brings out the best in a runner."



The rigid competition, however, is a two-way street for the runners themselves. To newcomers at Oregon—many of whom routinely won races in high school—the competition, while instrumental in lowering their times, can be mentally devastating. Few have felt the frustration as poignantly as Mark Feig, 880/miler who practically owned Oregon's tracks in high school but later found himself at the U of O to be a Cadillac in a world of Rolls Royces.

"Week after week, year after year, losing mentally destroyed me," says Feig, who had to battle the likes of Steve Prefontaine (3:54.6), Rick Ritchie (4:01.5), Knut Kvalheim (3:57.9) and Paul Geis (3:58.1) in his first three years at Oregon. Feig finally won a race last spring, but until then his college career had been a chain of frustration.

"Once I won, it made it all worthwhile," Feig says. "But until then, it tore me apart inside. Every week, it was the same old thing. Someone was always out in front. It's hard when you're used to winning."

"It's really discouraging," says Don Curtis, who quit the Oregon program as a freshman because of a nagging leg injury. "You're used to getting a lot of attention in high school, and then you come up here and find there are 30 runners to fill 10 spots. Runners like me (4:20, 9:20 in high school) are a dime-a-dozen.

Curtis, Feig and herds of others are lured to Oregon mainly by its unequalled reputation for turning out world-class runners. In the last 20 years, the Oregon distance program has produced 14 sub four-minute milers, nine NCAA champions, 27 All-Americans and 12 Olympians. Such statistics, while impressive, tend to breed illusions in the minds of prospective collegians.

"There's a number of guys who think there's something magic about Oregon," says Dellinger, now in his third year as head coach after taking over for Bill Bowerman. "We get guys who think they can run four-minute miles when they're only capable of 5:12."

Harry Johnson, a high school coach whose South Eugene teams have won eight state cross-country and track titles in the last five years, blames over-optimism in runners on their coaches.

PAGE 14: The five leaders are all present or past Oregon and Oregon TC runners. Mike Long sets the pace.

PAGE 15: Paul Geis, Oregon's current super-runner. (Jeff Johnson photos)

Eugene: Where a miler can run 4:03 and not make the team.

"If a guy is used to being the best on his high school team, he's got to realize that unless he's a Prefontaine it's just not going to be the same at a college like Oregon," says Johnson, who's coached a handful of runners who later went to Oregon, including Feig. "A coach has got to install realistic goals in the kid, make him aware that it's going to take time in college. I've got the same problem. Kids coming from the junior highs think they're going to step right in. It's just not that easy."

Dellinger is probably more familiar with the problem than anyone. "Many runners who have been tops in high school come here to find they're seventh or 10th or 12th," he says. "Obviously, they have to make quite an adjustment."

Some never do. Twenty freshman started the Oregon program in 1972, according to one of them, six-miler Bob Hensley. Four are still running. While few quit who are on scholarships, it's obvious that many don't find the haven at Oregon they're expecting.

"I discourage some runners from coming here," says Dellinger. "If they do come, I won't discourage them from running. I never cut. But I do let some runners know their opportunities to compete are limited."

Pacific-8 Conference rules limit the number of entrants in a dual meet to three per event, meaning roughly half of Oregon's distance corps cannot compete. Those who can't, many of whom could be competing on the varsity level at other schools, must settle for junior varsity meets with competition mainly from community colleges and track clubs.

Bob Rust, for example, graduated from Oregon as a 4:03 runner who had in one varsity race. While Rust might have been the top miler at many other schools he doesn't regret coming to Oregon. "I'd rather run 4:03 and place seventh than run 4:10 and win," he says.

Those who disagree with Rust's philosophy probably don't run at Oregon, however, where distancemen must learn to accept the bittersweet flavor.

"I've been frustrated with the program, and have considered quitting," says Bob Hensley. "But I've learned you've just got to forget about being the best in the world and concentrate on your own personal goals." Hensley, a 29:17 six-miler from

Connecticut who was originally discouraged from coming to Oregon by then-coach Bill Bowerman, emphasizes patience. "You have really got to believe in yourself here," he says.

But confidence, he admits, is hard to maintain in such a competitive program. "You're told you have to run in JV meets, so you begin telling yourself that's where you belong," he says. "You stop believing in your capacity to improve. All you can do is wait for your ship to come in, wait to make the varsity."

Among the many adjustments runners have to make upon coming to Oregon, "not feeling needed by the team" has been a difficult one for Hensley. "In high school, it was up to me to win for the team, and I got a lot of satisfaction out of it because I usually did," he explains. Here, if I'm not in a varsity race, there'll always be someone in there who'll do just as good—if not better—than I would."

With so many runners training at Oregon, not everyone receives the individual attention they need. After running at Oregon for six months, Bob Smith, a transfer from Foothill JC in California, recalls checking with Dellinger to confirm his entry in the annual Twilight Meet. "Yes, you're entered," Dellinger told him. Smith began walking away. "Hold it," Dellinger said, "You're on the team, aren't you?"

Obviously, it's not easy watching over 30 distance runners, especially when you're responsible for 40 other track team members. Dellinger says the distance program is naturally geared toward the better runner. But he regrets that individual attention must be sliced so thin.

"We're not able to do the coaching job we'd like to," he says. "Those with lesser ability must be somewhat neglected. And I regret that. Individual attention is no less in college than it is in high school. But, in our situation, it's tougher to give. If we had a handful of runners like most schools, it'd be different.

Oregon of course is not like most schools. It offers many things most schools can't—a highly successful training program developed by former Olympic coach Bowerman and continued by Dellinger, a good climate, the competition of high-caliber runners and a prestigious reputation. Naturally runners like Steve Prefontaine and Paul Geis find Oregon ideal. A paradise for all runners, it isn't.

"After all you hear about Oregon, you think it's going to be some sort of dream world," says Gary Barger, whose 4:02 clocking makes him the fourth fastest miler currently on the team. "But you quickly find out it's just a whole lot of blood and guts." ●

A fresh look at how the US and Canadian running population is distributed

ALASKA, THE HOTTEST MARATHONING STATE



Those of us who run marathons like to think two things about ourselves:

1. We're special—say, one in a million. *RW* used just that phrase last year in an article called "Catching Up to California" (May 74). It told of the Seniors Track Club's "one-in-a-million list," the point being that only one American in that many can complete a marathon.

2. We'd be even better at what we're doing if we didn't have to fight the extremes of weather for most of the year. Look how the people run in California, for instance. Give me a year out there and I could take on the world.

But as that article pointed out, facts don't uphold these assumptions. And the passing of another year has made them even less valid.

The truth now is that you're more like one in a half-million if you're a woman and one in 50,000 if you're a man. And this counts only sub-4:00 females and sub-3:00 males. The overall ratios are somewhat lower, but still not bad.

We counted the names in the new *Marathon Handbook*. The US men's list

showed a record 2400 under three hours for the year. Twice as many lived in California as any other state—17% of the total. One runner in six was a Californian—an impressive figure. But two other facts need noting.

- California's share dropped by three percentage points last year, as the sport continued to spread throughout the country. New York's share rose to 8% and Massachusetts' to 7% and Pennsylvania and Maryland were next. These states certainly don't have mild climates.

- California has the most marathoners, but it also has the largest population from which to draw them. When we look at marathoners per million population in the states, California's power shrinks. It drops to eighth place. The state with the most perfect running weather lags far behind the leader, frigid Alaska.

TOP 10 STATES

1973	1974
1. Hawaii	1. Alaska
2. Oregon	2. Oregon
3. Arizona	3. Massachusetts
4. New Mexico	4. Hawaii
5. Nevada	5. D.C.
6. California	6. Vermont
7. Massachusetts	7. Nevada
8. D.C.	8. California
9. Washington	9. Maryland
10. Vermont	10. New Mexico

Alaska is also the fastest-rising state, coming from the bottom half to first in one year. The weather couldn't have changed, so what did?

Opportunity. Alaska added two marathon races—Mayor's and Midnight Sun—in 1974, and these gave the runners chances to go fast without leaving the remote state. Alaska has lots of cross-country skiers who use long distance running as their summer sport. Before, they'd had only two mountainous trail marathons.

Opportunity spawned new marathon-

ers in all the leading states. Oregon had the Trail's End and Island races, two of the biggest. Massachusetts of course had Boston. Hawaii had the burgeoning Honolulu marathon. And the District of Columbia is a short drive from the Washington's Birthday and Maryland events.

It wasn't by accident that three of these states—Hawaii, Alaska and Oregon—also produced the most women runners per capita last year.

BOTTOM 10 STATES

1973	1974
42. West Virginia	42. Kentucky
43. Louisiana	43. Arkansas
44. Maine	44. Wyoming
45. Tennessee	45. Louisiana
46. South Dakota	46. Maine
47. Mississippi	47. West Virginia
48. Kentucky	48. South Carolina
49. Alabama	49. Alabama
50. South Carolina	50. Montana
51. Montana	51. Mississippi

Lack of opportunity has the opposite effect. Five of the bottom six states had no marathons in 1974, and Montana had only one—with three finishers. The marathoning population went down in just three states—Maine, Montana and West Virginia. Maine and West Virginia had no marathons then, but have corrected that situation for 1975. Watch for their positions to improve dramatically by this time next year.

ONE MORE MOUNTAIN TO CLIMB

by Paul Vanture

Vanture, a lieutenant colonel in the US Army, teaches military science at the University of Alaska.

Alaska has been called the last frontier. Whether you choose to believe that

or not, Alaska is a vast, rugged land of some 571,000 square miles and 300,000 people. It is very cold in the winter, and green and lush in the summer. It has some of the most awesome mountains to be found in North America, including the highest peak, Mount McKinley. Outside of the two largest cities, Anchorage and Fair-

PAGE 17: Paul Vanture runs in 20-below-zero Alaskan weather.

RIGHT: A typical Alaskan scene—uphill in the Equinox marathon. (University of Alaska photos)



THE STATES, THEIR RANKINGS AND RECORDS

The rankings below are made according to the state's or province's population. "M.P.M." means marathoners per million men's or women's population. Records are the fastest times ever run within a state or province, whether the athlete lives there or not—(marks through March 1, 1975).

UNITED STATES MEN

State (rank)	M.P.M.	Record
Alabama (49)	3.0	none available
Alaska (1)	80.0	2:37:37, Michael Just '74
Arizona (14)	33.8	2:15:18, Dennis Williams '74
Arkansas (43)	7.2	2:21:55, Terry Ziegler '72
California (8)	41.6	2:15:21, Bill Scobey '71
Colorado (13)	35.4	2:28:56, Floyd Godwin '67
Connecticut (15)	32.4	2:19:01, John Vitale '72
Delaware (25)	18.2	none available
D.C. (5)	55.2	none available
Florida (36)	10.8	2:19:34, Jeff Galloway '72
Georgia (41)	8.2	2:16:18, Neil Cusack '71
Hawaii (4)	57.2	2:23:02, Jeff Galloway '74
Idaho (29)	14.0	none available
Illinois (34)	12.6	2:21:53, Jay Dirksen '69
Indiana (32)	13.2	2:26:24, William Gavaghan '73
Iowa (28)	14.8	2:22:13, Lucian Rosa '72
Kansas (12)	37.4	2:21:15, Terry Ziegler '73
Kentucky (42)	8.0	2:30:58, Charles Copp '74
Louisiana (44)	6.0	2:14:27, Neil Cusack '74
Maine (48)	4.0	none available
Maryland (9)	41.4	2:17:23, Ron Hill '74
Massachusetts (3)	66.4	2:10:30, Ron Hill '70
Michigan (29)	14.0	2:12:00, Jerome Drayton '69
Minnesota (24)	18.8	2:18:29, Tom Heinonen '68
Mississippi (51)	1.8	none available
Missouri (33)	12.8	2:22:53, Bob Fitts '74
Montana (50)	2.8	2:26:21, Doug Brown '72
Nebraska (17)	24.4	2:21:36, Robert Busby '74
Nevada (7)	44.8	2:19:24, Scott Bringham '72
New Hampshire (23)	19.0	2:40:15, Michael Cryans '74
New Jersey (21)	21.8	2:19:16, Tom Fleming '73
New Mexico (10)	39.2	2:23:28, Larry Blancett '73
New York (20)	23.4	2:18:52, Ron Wayne '74
North Carolina (37)	10.2	2:22:32, Ed Hereford '73
North Dakota (27)	16.2	2:50:03, Jim Berka '74
Ohio (29)	14.0	2:20:41, Carl Hatfield '73
Oklahoma (37)	10.2	2:24:37, Larry Blancett '72
Oregon (2)	76.6	2:15:57, Moore and Shorter, '72
Pennsylvania (22)	20.0	2:21:57, Bill Rodgers '74
Rhode Island (16)	29.4	none available
South Carolina (46)	4.6	none available
South Dakota (18)	24.2	2:25:42, Michael Seaman '74
Tennessee (40)	9.6	2:40:52, Mark Bauman '74
Texas (39)	9.8	2:19:18, Terry Ziegler '74
Utah (35)	11.4	2:20:54, Scott Bringham '74

Vermont (6)	54.6	2:31:43, Ralph Thomas '71
Virginia (26)	18.0	2:27:07, Ed Hereford '74
Washington (11)	38.2	2:23:38, Vic Nelson '70
West Virginia (46)	4.6	none available
Wisconsin (19)	24.0	2:22:50, Lucian Rosa '73
Wyoming (44)	6.0	none available

UNITED STATES WOMEN

State (rank)	M.P.M.	Record
Alaska (2)	13.4	none under 3:30
Arizona (6)	4.6	2:51:38, Marjorie Kaput '74
California (5)	5.4	2:43:54, Jacki Hansen '74
Colorado	—	3:19:11, Pam Weigle '72
Connecticut (20)	0.6	3:00:10, Kathy Gervasi '74
D.C. (8)	2.6	none under 3:30
Florida (20)	0.6	none under 3:30
Georgia (25)	0.4	3:06:40, Gail Barron '74
Hawaii (1)	18.2	3:01:59, Cindy Dalrymple '74
Indiana	—	2:55:44, Cheryl Bridges '72
Illinois (20)	0.6	3:03:27, Kim Piper '73
Kansas (16)	0.8	2:55:45, Teri Anderson '72
Louisiana (16)	0.8	3:21:13, Connie Junghans '75
Maryland (8)	2.6	3:05:51, Kathrine Switzer '74
Massachusetts (13)	1.0	2:47:11, Miki Gorman '74
Michigan (25)	0.4	3:09:47, Sue Mallery '74
Minnesota (13)	1.0	none under 3:30
Missouri (25)	0.4	2:53:40, Teri Anderson '73
Nevada (3)	12.2	3:27:02, Alex Boies '75
New Jersey (20)	0.6	2:54:21, Jan Mitchell '75
New York (12)	1.6	2:55:22, Beth Bonner '71
North Carolina (25)	0.4	none under 3:30
Ohio (16)	0.8	3:12:01, Sigrid Nadon '74
Oregon (14)	8.6	2:56:07, Lili Ledbetter '75
Pennsylvania (20)	0.6	3:01:42, Beth Bonner '71
Tennessee (13)	1.0	none under 3:30
Texas (16)	0.8	3:00:54, Kathy Loper '75
Vermont (6)	4.6	none under 3:30
Washington (10)	2.4	3:19:06, Janet Heinonen '74
Wisconsin (11)	1.8	3:17:14, Jeanne Crandall '74

Other states had no runners under 4:00 in 1974, and have no marathon records under 3:30.

CANADIAN MEN

Province (rank)	M.P.M.	Record
Alberta (5)	11.0	none under 2:30
British Columbia (1)	29.4	2:14:33, Tom Howard '74
Manitoba (4)	14.2	2:23:02, Andy Boychuk '67
Newfoundland	—	2:13:26, Jerome Drayton '73
Nova Scotia (3)	20.2	2:22:47, Ray Will '69
Ontario (2)	22.8	2:15:45, Jeff Julian '69
Quebec (6)	8.6	2:19:24, Ron Wallingford '66

Other provinces had no runners under 3:00 in 1974, and have no marathon records under 2:30.

banks, Alaska is made up of mostly isolated villages. Paved roads are few and far between, although the oil pipeline is having its effect both on the land and economy. The population is growing and road traffic is more extensive.

During the mild season, roads and trails are populated with runners. Chances are, however, that the majority of them are primarily skiers anxiously awaiting the first snowfall. Running and skiing go together and Alaskans take both seriously. They don't seem to take too kindly to the normal road races I have become accustomed to in the lower 48 states. If you go to a race here, it will most likely be run up the side of a mountain, a glacier or even a cliff. Invariably, it will be out in the bush where trails must be hacked out of the wilderness.

The cross-country trails around the University of Alaska campus in Fairbanks double as ski trails in the winter. Tree roots abound. Many bogs are encountered where the permafrost has melted and the trail has sunk. The rugged terrain and winding paths make it difficult to set a pace, and are hard on the legs and feet. If you miss a trail marker, you might be out there for hours. You might encounter

The state with the most perfect weather, California, lags far behind the leader, frigid Alaska, in number of marathoners per capita.

a moose or bear, which can be hard on your nerves.

Runners celebrate the Fourth of July in Seward, about 120 miles south of Anchorage. Here, the Mount Marathon race has taken place since 1912. It started when two sourdoughs (the term used for indigenous Alaskans) got into an argument over whether the mountain could be climbed and descended in less than an hour. A wager was made and the race was on. The first race took 61 minutes.

Belying its name, it is a six-mile course. Standard equipment should be climbing gear and gloves. The first three miles are a 3000-foot ascent up an almost cliff-like side through loose rock. The last half of the race is a controlled crash back down. The record is just under 45 minutes.

Until last year, three full marathons were run in Alaska. Two of these are among the most rugged to be found any-

where. Two more marathons (Mayor's in Anchorage, Midnight Sun in Fairbanks—both in June) have been added to give runners an idea of their potential over a more "normal" course.

The highlight of the running season is the Equinox marathon, scheduled this year for Sept. 20 in Fairbanks. In terms of distance and terrain, it is the most difficult race of all. Winter is near, and snow can be expected to add to the fun. There are about 3500 feet of climbing including one stretch of 2000 feet. The terrain constantly changes, making footing precarious at best. It is one of the most popular marathons in the country, with 558 people starting last fall.

The impression I give may be one of races run in primitive settings. In many cases, this is so. In order to get to the starting line of the Resurrection Pass marathon near Anchorage, runners must hike in a mile once they leave their cars. But with the increased vehicular traffic, it is a pleasure to get out into the hills. The air is still clean here, and it smells delicious. Alaskans thrive on this kind of running. Someday, someone is going to cut a trail up Mount McKinley and organize a new race there. After all, it's just one more mountain to climb. ●

CANADA

INVITES YOU



**TO THE 1st
WORLD MASTERS
(40 and over)
TRACK & FIELD
CHAMPIONSHIPS**

**August 11 to 17
1975
Toronto, Canada**

**Open to all Veteran
Male & Female Athletes
(age group competition)
Sponsored by C.N.E.,
Canadian Masters and
U.S. Masters
Plus sub-master
(30-39) events**

Join inexpensive West Coast Air Charter to World Masters and AAU Masters. Leave August 7, return August 18.

For further information contact:

David Pain, 1160 Via España, La Jolla, California 92037, U.S.A.

2nd Annual

DEXTER-ANN ARBOR

15 MILE ROAD RUN

Saturday, May 24, 10 A.M., EDST

7 age divisions for men
3 age divisions for women

Awards to all finishers
Special individual and team awards
Dressing and shower facilities
Other events included

Course follows the scenic
Huron River through some of
lower Michigan's finest country

For complete information and entry forms write:

ANN ARBOR TRACK CLUB

Elmo Morales, President

P.O. Box 374

Ann Arbor, Michigan 48107

TRAINING TO NEW PEAKS

Dr. Thomas J. Osler, Mathematics professor at Glassboro (N.J.) State College is the author of the *Conditioning of Long Distance Runners*—described by many as the best little booklet ever written on running training.

I am a mathematician and professor, not a physiologist. Yet I am writing here on a subject which embraces all aspects which relate to human performance: the physical, the psychological and the spiritual. I present a theory which is useful to runners and coaches in understanding the ups and downs of distance running performance. This theory is the refinement of my thoughts on this subject which I have drawn from 20 consecutive years of racing and training. During this period, I have competed in races of one to 50 miles and calculate that I have covered over 50,000 miles in training. What I present is the condensation of experience, not deductive science.

As runners continue to invest time and energy in training, they naturally expect dividends in the form of improved racing times. Let us examine the aspirations of a young athlete who races at two miles. He is likely to anticipate improvement somewhat as shown in Figure One (p. 21).

The runner who raced the two miles at 11 minutes in 1975 hopes to improve gradually to much better times as he continues training over the next few years. He anticipates steady improvement.

Unfortunately, this is not a realistic expectation. Runners do not experience steady progress, but find that their racing times are much more erratic. There are periods when the performance level is high, but there are also discouraging periods when the runner seems to slip backward into slumps. A more realistic picture of the performance level of our two-miler would be as shown in Figure Two (p.22).

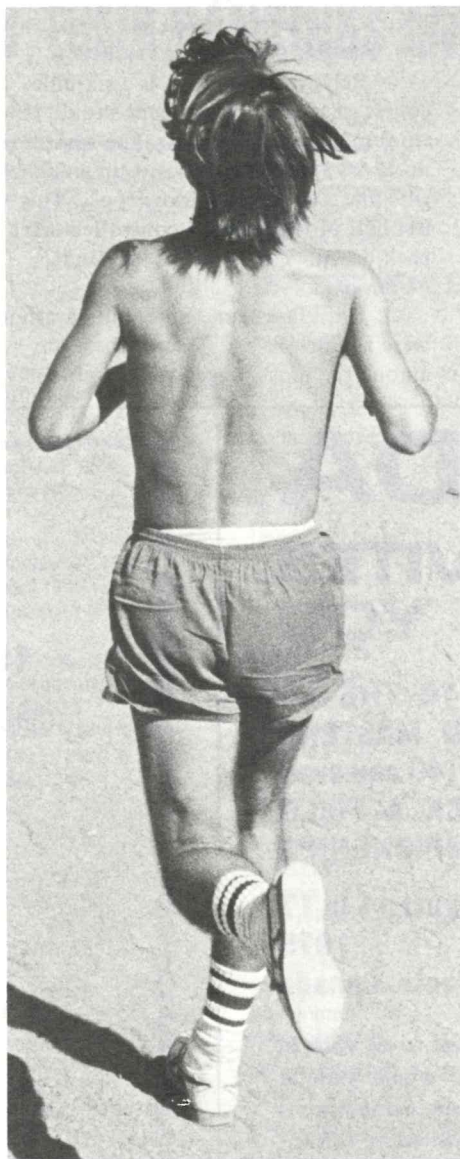
Here we see there are period of high performance (BC, FG, JK, and MN), However, there are also slumps (CDE, GHI), My theory reveals that peaks and slumps are quite natural and that steady improvement is most unnatural.

Before discussing this theory, it is of value to consider theories in general. The purpose of a practical running theory is two-fold: (1) to bring order into the chaos of the runner's experience, and (2) to enable the runner to predict the likely outcome of various methods of racing and

by Tom Osler

training. It matters not that there might be physiological errors in the theory itself. What is important is that a simplified vision of the various components of running emerges which enables athletes and coaches to make wise decisions.

We might compare this running theory with Newtonian mechanics which developed



To reach the heights, you have to accept the slumps.

in the 17th century. Until Einstein in the early 20th century, the Newtonian laws of physics were viewed as absolute truths. Today, we know that these laws are only an approximation to the truth, and that corrections such as Einstein's are necessary for the most accurate information. However, for most practical situations (those where velocities are not near the speed of light), the laws of Newton are so accurate that the error cannot be detected. It is in this spirit that the following theory is presented—a spirit not of absolute physiological truth but of practical value.

There are three essential components which must be understood in our theory: (1) cardio-respiratory; (2) neuro-muscular; (3) psycho-endocrine. These three are not really distinct, but are intimately connected. Nevertheless, for the sake of clarity, we will view them here as separate elements contributing to the runner's performance.

● **Cardio-Respiratory**—Consisting of the heart, arteries, veins and lungs it is the most important component of the distance runner's machinery. It is the essential foundation on which all else rests. In Figure Two, the contribution of the heart and lungs is shown by the "base level," that straight line under which the area is shaded. The base level of the runner is capable of continuous improvement over many years of running.

While there are many techniques by which runners condition their cardio-respiratory system, I shall mention only one—long, slow running. Long, slow running is perhaps the best method of improving this base level because it reduces the probability of injury when compared with faster forms of training.

What is long, slow running? The terms long and slow are relative, and need to be considered in light of the athlete's capacity. For our young two-miler, who raced this year at about 5:15 per mile pace, a long, slow run might be 10 miles at 7:30 pace. An important aspect of this type of training is that the runner must always finish the workout with much in reserve. The runner who uses 10 miles at 7:30 pace should be able to run 15-20 miles at that same speed. Thus, he finishes each workout relatively fresh. In this way, his base level slowly improves.

● **Neuro-muscular**—While the cardio-respiratory system was responsible for the

steady improvement seen as the base level straight line on Figure Two, the neuro-muscular and psycho-endocrine components cause the alteration of performance above and below this line. A rise in performance, such as that exhibited by the curve from A to B is called "sharpening."

One aspect of sharpening training is neuro-muscular efficiency. People become efficient at activities they perform often. Our runner who is training at 7:30 pace will not be efficient when he races at 5:15 speed. He will not be able to relax fully and will be awkward at this faster speed. To obtain neuro-muscular efficiency, runners will train at race pace or faster for short distances. Interval and fartlek training are often employed for this purpose.

● **Psycho-endocrine**—This third component of running is the most mysterious. The endocrine system itself was not discovered until this century. Many stories relate the miraculous effects of the psycho-endocrine system. I recall reading some years back of a woman who ran from the house when she heard the cries of her husband. He had been working under his car, the jack had slipped, and he was trapped beneath the wheels. His small, frail wife, who ordinarily could not lift a medium-weight suitcase, now in the moment of great need lifted the car with only her hands and her husband was saved!

We now know that the body has in reserve mechanisms which it will only employ during the most critical periods. One such mechanism is the endocrine secretion of adrenaline. There are other endocrine juices, and their effects are not fully understood. The endocrine system also apparently is at work in "Faith healing." At times, the faith healer can so adjust the psychology of the patient that the mind, in conjunction with these reserve mechanisms of the endocrine system, will produce healings which have no other natural explanation.

The runner would certainly like to employ these reserve juices to improve his performances. The psycho-endocrine system, together with the neuro-muscular, creates the sharpened state of the runner as seen in Figure Two at BC, FG, JK and MN.

It is important to recognize, however, that the psycho-endocrine mechanism is a *reserve* mechanism, and not one which is to be employed continually. Wisely, nature makes it very difficult to utilize the endocrine juices, for while they stimulate super-human performance they also place the body under great strain. This additional strain cannot be tolerated indefinitely. To see this, let us return to the example of the small woman who

lifted the car. She suffered from back trouble for years following her Herculean feat. The body was alerted and made ready in the moment of emergency, but the resulting stress was so great that health was impaired.

It is the great stress caused by utilization of the endocrine juices that results in the period of diminished performance called "slumps"—seen in Figure Two as CDE, GHI, KLM, etc.

To summarize the theory presented far: There are two aspects of Figure Two which contribute to the runner's racing performance—his *base level* and *sharpened level*. The base level, the result of his cardio-respiratory conditioning, is capable of continuous improvement. The sharpened state of the runner is not continuous but is cyclic. It is the result of the neuro-muscular and psycho-endocrine action. The employment of neuro-muscular efficiency with psycho-endocrine stimulation results in peak performance levels. Nature's safety valve is open during periods of "slump." Here we are saved from our own ignorance by a silent force within which says no to the continuing strain caused by the employment of endocrine juices. A period of rest and lowered performance follows, during which nature prepares for the next assault on personal records.

USING THE THEORY

If a theory of distance running performance is to be of any value, it must be

practical. It must help the runner to make wise selections of various training techniques. It must guide him to the realization of his full performance potential.

Since the runner's performance level is of necessity cyclic, with peaks and slumps, he should plan for his peaks to occur at the most desirable time. Since races are staged year-round in distance running, the runner must select a brief period during the year in which he hopes to do his very best. Usually his peak period of performance will not last longer than six weeks before the inevitable slump begins. Generally, it is not possible to experience more than two peaks per year. Usually, only one peak per year is possible.

Since the endocrine secretions place the body under great stress, it is advisable to conserve these juices during the dormant base phase of training illustrated in Figure Two by DE, HI, and KL. The conservation of endocrine juices is largely achieved by discouraging competitiveness. If the runner chooses to race, he should do so in a light-hearted manner. Training partners who are non-competitive should be selected. Only by a conscientious attempt to reserve the runner's fighting spirit will a strong peak be possible in the future.

How do runners initiate the rise from the base level to peak performance (illustrated by Figure Two at AB, EF, IJ and LM)? One method is through a

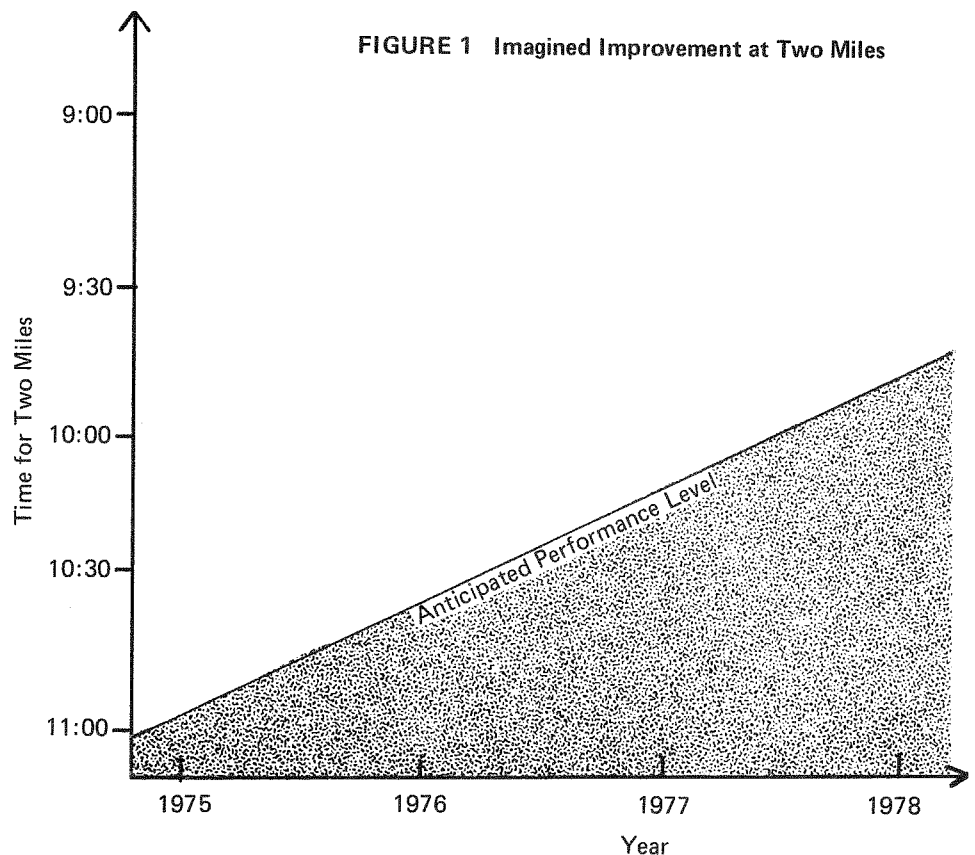


FIGURE 1 Imagined Improvement at Two Miles

burning psychological need to race well. At times this is not deliberate. I shall give an example from my own experience.

During the summer of 1965, I was training a younger runner who beat me for the first time in a six-mile track race. I found this defeat very difficult to accept in a sportsmanlike manner, and I arrogantly told my young friend and pupil-turned-competitor, that I was sure to trounce him next week. Next week came and again he beat me. I was inwardly furious. To my mind, he seemed unworthy of victory and an infantile element of my own personality made me long to beat him.

Our next meeting would occur in two weeks on a five-mile road course. My desire for victory was so great that I lay awake at night thinking about it. Since the course on which we were to race was near my home, I went out to it frequently and in my mind I imagined the tactics I would use in the actual race. At a particular bend in the road, during the first mile of the race, I planned to strongly accelerate and to maintain the faster pace for a full mile over a hard hill. This I hoped would break him. Each time I passed this bend in the road, I became electrified at the thought of the forthcoming battle and surged ahead with speed.

Finally the duel came, and I won easily. Now I found that I was at my best ever. My previous best three-mile race had been 5:10 speed, but now I could average 5:10 speed for 10 miles. During

the next the next two months, I placed third in the National AAU one hour run and first in the National AAU 25-kilometer. These performances were made possible by a rise in endocrine activity sparked by a burning desire to race well.

Runners who have mastered the art of rising from base to peak levels are capable of dramatic alterations in performance. An example of this is found in the book *No Bugles No Drums* which tells the story of the great middle distance runner Peter Snell. In 1964, shortly before the Tokyo Olympic Games, Snell could hardly run the mile in four minutes. Yet he knew that only six weeks were needed to bring himself to the best possible form. He astonished the world by winning both the 1500- and 800-meter Olympic titles.

Thus, the rise from the base to the sharpened peak is obtained through a combination of faster training and the proper psychological input which will turn on the endocrine system. This psychological input is itself a great art. Truly great coaches know how to weave this magic spell within their runners.

There are definite symptoms which the athlete can detect within himself when the attempt at peaking is progressing successfully. These include: (1) an increase in competitive drive; (2) a great eagerness to race; (3) general feeling of alertness and a desire to do things and (4) increased sexual drive. When these

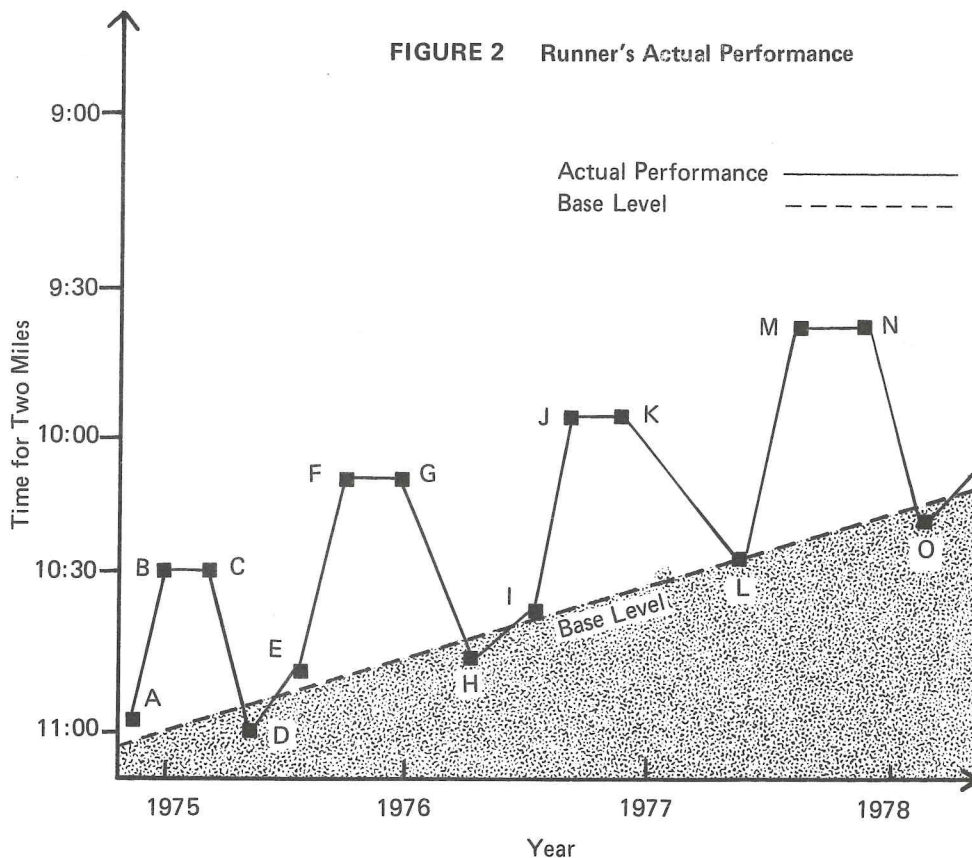
symptoms are not observed, it is likely that the attempt at peaking will be unsuccessful.

Once the peak is reached (points B, F, J and M of Figure Two), great care must be exercised in order that the peak level be maintained for the greatest duration. Since the endocrine system is now activated, the body is in general under greater than normal stress due to the high performances now being demanded of it. While the athlete feels strong, and is elated over his new-found running prowess, in reality his overall health is much lower than it was during the dormant base phase. Resistance to colds and disease is lowered, and every precaution should be taken to prevent infections. Also, injury to tendons and muscles is now more likely due to the greater speeds being used in racing.

As mentioned before, once the peak is reached it is likely that the runner will only be able to maintain the peak for at most six weeks. However, it is also possible to terminate the peak far earlier than this by not carefully estimating the stress caused by racing. A premature termination of the peak occurred for me in the fall of 1967. The Atlantic City marathon had been selected as regional championship, and the winner was to receive expenses to the high-altitude training camp at Alamosa, Colo., in preparation for the 1968 Olympic marathon trial. Thus, I was hoping to do my best at Atlantic City and was sharpening.

All seemed well and I was racing better each week. A few weeks before the marathon, a 16-mile relay race was held in Atlantic City. Team of four runners ran four-mile legs. Since I was not a team member, I was ineligible to compete. However, I went to Atlantic City for the purpose of running the first leg of the relay race as a speed workout. I found myself out in front and running easily. I decided that I felt so good I would run the second leg also. Again, I found myself ahead and decided to try the third leg. I finished the third leg ahead of all the teams and decided to go the full 16 miles. I tired badly on the last leg and was overtaken by at least two runners before I reached the finish.

I could have easily handled a 16-mile race at the proper pace, but I had started at a four-mile speed. The fatigue was very great. My legs were dead in subsequent workouts. The peak I had so carefully nurtured had been destroyed in a single race. (An example of a shortened peak of this type is seen as BC in Figure Two. Notice that BC is shorter than the peaks at FG, JK and MN. Notice also that the decline to the base level CD is very rapid.)





During the peak, the runner is like a very sharp blade. The blade cuts easily, but it is so thin that it can easily snap. So it is that the runner during the peak is in a most delicate state. No unnecessary stress can be tolerated here.

Regardless of how careful the runner is to avoid overstress during the peak phase, the slump and return to the base level is inevitable. It takes about six weeks to rise from the base to the peak level (see EF in Figure Two). The runner can remain at the peak for at best another six weeks (see FG) before nature will demand that endocrine juices be turned off. The body simply cannot tolerate this high stress level any longer. If the runner continues hard racing and fast training after this period, he will very quickly drop to the base level (see GH).

However, if the runner reduces speed training and returns at once to the slower base-level training, he will find that the decline to the base level is much more gradual. (An example of this is shown in Figure Two, where at KL the runner employs reduced training and his return to the base level is much more gradual than that shown in GH, where the runner has continued sharpening training and has found that the decline to base level has been precipitous.) It is very common for runners to misunderstand this

**PAGE 20: "Base Building" on roads.
ABOVE: Putting "sharpening" to
use on the track. (John Marconi)**

phenomenon. The runner who has been enjoying his best-ever racing suddenly finds that he is beginning to slip. He says to himself that more training is needed to maintain his racing sharpness. This is exactly the wrong training procedure. The runner needs rest, not more stress. If the runner increases his training, as many do at this point, he will find that he very quickly drops to his base level. If, however, he reduces his training and returns to the slower base-type training, he will be rewarded by a very gradual decline to his base level.

Thus, we see that the slump phase is due to nature's insistence that we rest. Staleness is not unnatural. It is important then, to be able to detect the onslaught of staleness so the runner can reduce the intensity of his training. The symptoms of the beginning of staleness are the opposite of the symptoms of successful sharpening discussed before: the runner no longer wishes to race, he has no fight. His resistance to colds and other infections is lower, and he likely is suffering from tendon and muscle soreness. Finally, and very significantly, there is a pronounced decline in sexual drive.

There have been attempts to lengthen the duration of the peak performances. The most notable and documented method of doing this is through the use of vitamin E and wheat germ oil. Personally, I am opposed to such methods. If nature asks for a rest, I feel it is wiser to take that rest and not attempt to override her protective mechanisms.

If I have learned anything from my 20 years as a competitive distance runner, it is that nature is a beneficent force. I once thought that staleness and slumps were phenomena to be struggled against, but I have learned that this is not so. Staleness is nature's rest period.

I have learned to appreciate all of the phases of the running cycle. Each of the four phases has its own beauty. The period of sharpening to a peak is like the spring, with its awakening and rebirth of once dormant energy. The peak phase is like the bright hot summer, with the intense richness of fast racing simulating the jungle of growth which summer provides. The slump from peak performances is like the fall. While performances are now fading in their brilliance, like the colors of fall they herald a period of rest. The base phase is like winter. While the landscape is bleak and cold, the dormant stillness awaits yet another resurrection of good running to follow. ●

The attitudes and adaptations that let people run all day.



TO THE LIMITS OF ENDURANCE

THE FAT BURNER

by Dr. Robert D. Crane

Dr. Crane, of suburban Washington, D.C., organized and ran in the 300-kilometer race he describes. He is a student of animal behavior, and of high-altitude and high-latitude survival techniques. Crane is a competitor in sleddog races as well as long distance runs.

Have you ever seen a runner breeze

through a 6:15 mile. . . at the end of a 20-mile run in 2:16 . . . at the end of a marathon in 3:04? Probably so. Many trained distance runners can accelerate like this through a marathon by drawing on the glycogen stored in their muscles.

But what if this performance is at the end of a 50-mile run in 6:11, and this in turn is the last 50 in a 62-mile (100-kilometer) run in 7:48? Still possible. At least a dozen runners in the world have run the distance this fast or faster.

But what if the runner has equalled the third-fastest 100-kilometer time in US history (7:52), and the next day has run 100 kilos in 8:12, and then the following day runs his 7:48—accelerating all the way, with a final 20 miles at 6:49 per mile?

When Park Barner turned in these startling performances last November in the annual C&O Canal 300-kilometer (186-mile) race near Washington, D.C., at least one distance expert dismissed him out of hand. In half-jest, the late Rod Steele, president of the DC Road Runners Club, commented, "Park's training and running are irrelevant to human physiological theory, because, quite frankly, Park is a Martian."

Rod was right in one sense. Park's total time of 23:53 (7:42 per mile), with his fastest running on the last day, shatters the accepted limits of human performance and totally violates modern theories of physiology. But he was wrong in another sense. Perhaps Barner's run should force us to rethink the basics of long distance running physiology.

The secret to successful distance running, any exercise physiologist will tell you, is training and pre-race diet adjustments to increase the storage of energy-producing glycogen in the running muscles. When you run fast—that is at any pace within about two minutes of your fastest mile speed—your running muscles will draw their energy almost exclusively

from muscle glycogen. The muscles will select this "high-octane" glycogen fuel source in preference to "low-octane" fat, probably in response to the buildup of disabling waste products of metabolism.

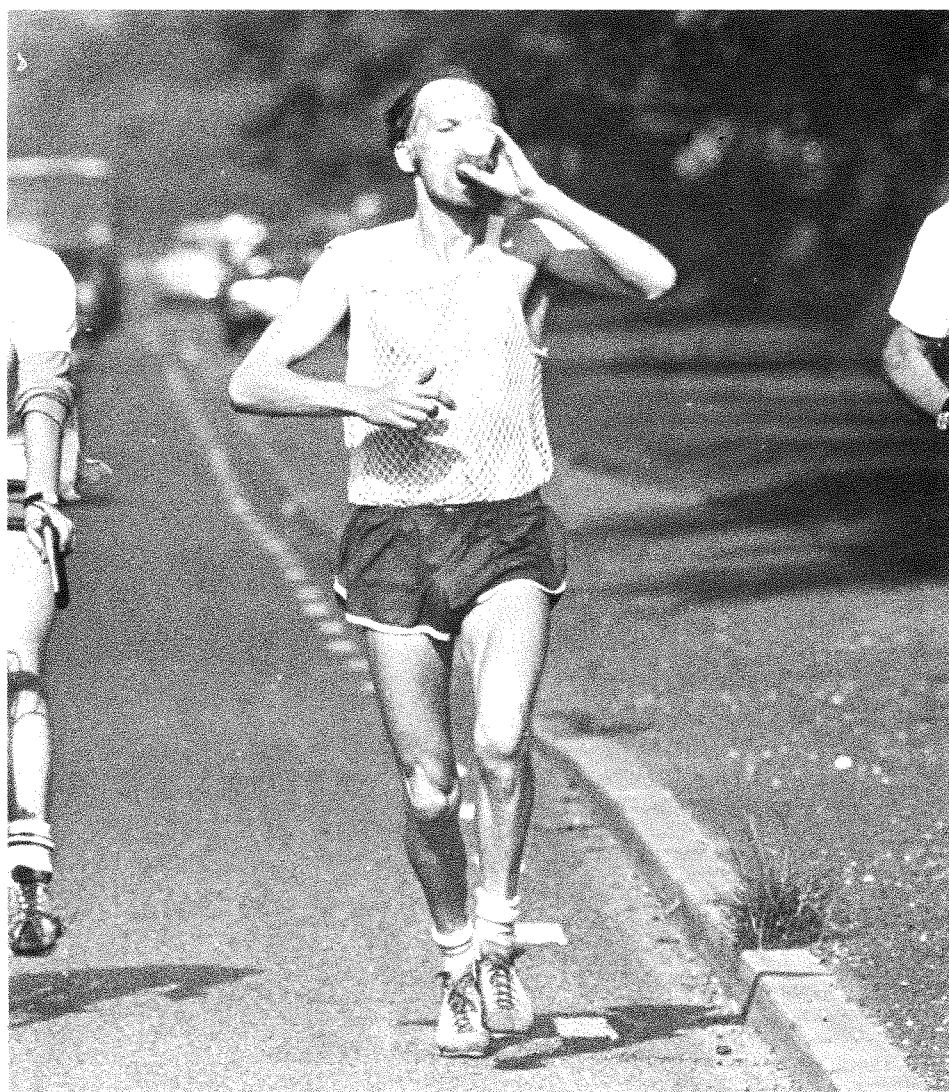
You can train your body to store enough glycogen for long distance races by running at least twice the racing distance every week for two months before a race. Training like this has been shown to increase glycogen levels from less than one gram per 100 grams of muscles in sedentary individuals to almost 2g./100g. in highly trained individuals. And you can double this amount of glycogen by running hard a week before the race, then using a protein diet for three days, followed by crash-loading the muscles with high-carbohydrate foods for the last few days. This "loading" can push glycogen levels up to 3.5-5.0g./100g. of muscle.

So much for conventional theory. What does it have to do with Park Barner's or anyone else's performance in the 300-kilometer race? An answer came to me during the second day of this event as I jogged along at an 11:45 pace.

Following Ken Young's theory of the "collapse point" (one "runs out of gas" at about three times the average daily training distance; glycogen supplies theoretically are depleted at this point and a runner is forced to slow down dramatically), I had dutifully trained an average of 85 miles a week for two months before the race.

My glycogen should have lasted for 35 miles or so at marathon pace, and longer if I went slower. I made it to 50 miles by running the first 25 miles at 8:45 pace and the last 25 at 9:45. I figured that this level of effort should postpone my collapse point well beyond the first day's 100-kilometer distance. But I started laboring a couple of miles before 50 and saw I had reached my limit.

Something was radically wrong. I stopped for 45 minutes to rest, eat and



body chemistry in order to minimize our dependence on the modest stores of glycogen energy in our muscles.

We can explain Park's superior performance in two ways: (1) superior body chemistry resulting from superior training; (2) superior adaptability to the stresses of this training. Analysis of his performances over the past three years suggests a possible explanation of superior body chemistry.

The key may be that he is able to use fat as energy more efficiently than other runners. Most of us slow down considerably when the fuel mixture shifts from predominantly sugar to predominantly fat, as happens so often after 20 miles of a marathon. Park may be able to avoid this metabolic paralysis, as is suggested by the fact that he has never reached the "collapse point" so feared by normal male runners.

Although fat is much less efficient fuel than glycogen, the amount of potential energy available from fat is 50 times greater. By processing large amounts of fat, Barner may be able to produce just as much energy as he and others can from glycogen. Furthermore, he may be able to maintain this energy production 50 times longer. Since 50 times the normal glycogen limit of 20 miles is 1000 miles, Park's energy expenditure may be limited only by the need for sleep.

Significantly, Barner often fasts for a week or more before long races. Perhaps the lack of carbohydrates in his diet during these periods serves to trigger the rapid production of energy from stored fat.

The long distance champions of the dog world are the Siberian Huskies. Teams of these dogs used to run 100 miles a day for four days each week carrying mail, and they now compete in sleddog races. They often perform best after a day or two of fasting.

Recent experiments by Dr. Jim Corbin, who has spent a lifetime developing commercial cereal dog foods, indicate that carbohydrate-burning dogs perform best on a treadmill at distances 30 miles and more if their bodies have been converted into fat/protein-burners by fasting for at least 24 hours before tests. Other research suggests that dogs fed all-meat diets do not need this stimulus because they have become natural fat/protein burners.

The need for fasting may decrease as the body becomes more efficient in processing fat and protein—to the point where fasting becomes counter-productive, as it has been recently in Barner's case.

The major drawback of his ability

figure out how I had miscalculated so badly. I ran the last 12 miles at a forced 10-minute pace only because Bob Horman, who was Ron Clarke's coach in Australia, ran along with me offering encouragement.

The next day, I started again. Although all soreness and stiffness in my muscles disappeared miraculously at 12 miles (and never returned) I simply could not accelerate comfortably beyond an 11:45 pace. All the theory behind my planning was obviously wrong.

As an experiment, I had done all my training since August in three sessions a day. This was to test what I thought to be Ken Young's theory that total training distance is the only important variable in extending the collapse point. Not once did I run longer than 10 miles at a time.

As I neared the marathon point, on the second day of the race, I compared my training with ParkBarner's. The difference lay not in the miles covered (although Park had run twice as far as I had in the two months prior to the race). The real difference was that the whole concept of collapse point and the underlying school of thought on the importance of glycogen were irrelevant to ultra-long

PAGE 24: Lynn Hughes literally reaches the limit of his endurance as he collapses in a British 50-mile track run.

ABOVE: Alastair Wood apparently is still moving well after 48 miles of the London to Brighton ultramarathon. (photos by Mark Shearman)

distance running of the kind I was now experiencing for the first time.

What does the conventional theory of distance running physiology have to do with Park's performance? The answer was clear then and became more obvious throughout the race: absolutely nothing.

What is needed is a new theory of training to run well not with glycogen but after the glycogen is gone. For this purpose, my training was a model of what *not* to do. I have never run to the point where my glycogen supply was depleted.

The best approach to proper training is first to understand its purposes. The purpose of training for a 300-kilometer race quite simply is to transform our basic

to process fats so readily is the limit it places on fast running. Park's fastest two-mile time is 10:48 (run the day after a 36-mile race, which in turn was run after a 22-mile warmup). His fastest marathon is 2:37 (he ran 2:39 the next day).

He says, "I didn't feel tired in either of the fast marathons, but I needed more oxygen to have gone faster." While he appears to be far more efficient than most runners in ultra-long efforts, he seems less well adapted to standard racing situations which put a premium on glycogen running.

The balance tips back in Park's favor, however, at distances beyond the marathon. He goes on—even accelerates—as glycogen-burners like me drop out halfway through the second day's running because our bodies haven't been taught by training and diet to switch to longer lasting fuel.

(Next month: A more detailed personality and training profile on this incredible runner, Park Barner—including his view of the 300-kilometer race.)

THE ZULU MAIDEN

by M. Holland

South Africa has a tradition for ultra-long distance running. The Comrades Marathon—which despite the name is a 54-mile race from Pietermaritzburg to Durban—draws a field the size of Boston's for a race more than twice as long. But as Holland indicated here, the Comrades runners may not be the most talented in their country.

As the full, deep notes of the post office clock boom out over the city, what are the emotions that grip the hundreds of people who wait for the sound? Relief, excitement, resignation? They have come to run the Comrades Marathon.

For a few, the race starts from their first step, and by the time the sun is high the race is over. But to most, there is a long, long day ahead, with period of joy and exhilaration, and periods of pain and depression.

The never-ending road, the merciless sun. Every muscle aching, feet burning, and unquenchable thirst. Yet still the road goes on. When the runner can no longer face the journey and cares no more if he runs another step, a friend passes by and says, "Tuck in behind, mate, and we will do the next few miles together."



John Tarrant, a Britisher by birth, spent a portion of his life in South Africa. There he ran the Comrades' Marathon—a 54-miler between Durban and Pietermaritzburg. Tarrant, who died recently, once held the world 100-mile record. Here, he's racing 50 miles on an English track. (Mark Shearman photo)

A little breeze springs up, and a few drops of rain hit his face. The smell of damp earth brings back memories of early morning training runs with friends, of laughter on the way. He remembers the runs on the beach, the runs through canefields, the morning mists slowly rising from the valleys.

He remembers one Sunday morning when he was striding out mile after mile, wishing all the world could see him. As he passed several Zulu, a buxom maiden broke from the group and fell in beside him. High heels she wore, and a wig. In one hand, she carried an umbrella, and in the other a shopping bag filled with a live fowl and vegetables.

The runner smiled half-heartedly at the young woman, and she beamed back. After a couple of miles, she was still beside him. The laughter from the on-lookers reached his ears.

As they approached a steep hill he thought, "I'll shake her off here." Twenty minutes later at the summit, now almost exhausted, the runner turned to find the Zulu maid still beside him—a wide smile alighting her face.

The runner stopped abruptly and sat down, pretending to remove a stone from his shoe. Seeing nothing amiss after her first concern for the runner, the woman said in Zulu that she was sorry she could not wait. She was in a hurry to reach her village in the next valley before nightfall.

She continued running at the same pace, only now she was singing a hunting song which the runner heard longer after the woman had disappeared from view . . .

A voice suddenly brings him back to the present. "How is it going, old chap?" says a passing runner. "Only a couple of miles and we will be in 'Maritzburg."

A hidden well of strength and joy is tapped. "I've done it," he says to himself. "I've run the Comrades Marathon!"

THE TARAHUMARAS

by Harold Elrick M.D.,
James Crakes Ph.D. and Sam Clarke

The Tarahumara Indians of Mexico are legendary runners. They're said to run for days at a time through the high elevations of the Sierra Madre range. RW featured the Tarahumaras in an article fittingly called "The Super Runners" in May 1972. Last year, US researchers went to Mexico to gather more information.

The team included Elrick, director of the Foundation for Optimal Health and Longevity; Crakes, running coach at US International University, and Clarke, training consultant for the Effectiveness Resource Group.

Can a 15-year-old boy run 100 miles over rugged mountain trails, between sunrise and sunset?

Seeking the answer to this and other seemingly ludicrous questions, a group of scientists sponsored by the Foundation for Optimal Health and Longevity ventured deep into the high barranca country of north central Mexico last May. For a week, the physicians, exercise physiologists, technicians and photographers pursued the shy and reclusive Tarahumara Indian in his native habitat, attempting to document stories of his amazing distance running performances.

To be certain that our time and energy was spent most economically, arrangements were made to stage two "rarahipas" (distance running games) and collect data on the competitors in ex-

change for food and cloth. These distance races have great social and religious connotations to the Raramuri—the name the Indians call themselves (it means runner) and traditionally take place in a festive atmosphere. Natives from miles around gather to participate as promoters, bettors, torch-carriers and "running spectators".

The differences in life-style and attitudes between these Indians and our group were so marked that we were often confused by a sort of reverse cultural shock. This showed up when we began to collect data on the fitness levels of the competitors by testing maximal oxygen uptake on the bicycle ergometer. This test was chosen because it requires

minimal understanding and coordination. But our first experience with someone on the bike was a disaster. We later realized these people had never seen or heard of a bicycle, and therefore the most basic physical activity which children in the United States perform with ease was beyond the Tarahumara comprehension. After much trial and error, we were able to have the runners complete the six-minute bicycle ride by taping their sandaled feet to the pedals and providing constant verbal exhortations to help them maintain the rhythm established by the electronic metronome.

After the "ride" each runner was taken into a small dirt-floored cabin where we measured his vital capacity, subcutaneous fat and drew blood for selected blood chemistry studies. Much to our surprise, the runners did not show exceptional capacities for taking in large amounts of oxygen per minute as might be expected from performers of incredible feats of stamina.

One of the expedition members ran 10 miles with the runners to determine their pace, and we timed certain racers over a measured segment of the course during the competition. It was evident that the intensity of effort would be classified as sub-maximal for very fit individuals. The astounding feature of their performances was the runner's uncanny ability



Bil Canfield

to run over varied and rugged terrain, kicking a small, hand-carved wooden ball with their feet protected only by light sandals, through the blackest night—and still maintain a pace of 6-9 minutes per miles for 60 miles.

The day before the men's race, six young women—one of them 12 years old—amazed us by running their version of the "rarahipa" in long skirts (some wear as many as eight) and sandals for 50 miles after sundown, tossing a three-hooped reed device with a four-foot pronged stick instead of kicking a ball.

Our analysis of the Raramuri feats based on observation, interviews and data resulted in these conclusions:

1. From their earliest moments of locomotion, the children chase and herd their parents' goats from sunrise to sunset. We watched them for hours in the hot, windy and oxygen deprived air, picking up rocks, throwing, running, throwing and running. This may be one of the best endurance training programs known.

2. Another factor relates to nutrition. The topography of their homeland is not only rugged but also sparse, with little rainfall and few water sources. Cornfields languish in the dry, blowing winds, and the ears at maturity may not reach four inches in length. There is little wildlife, and it is hard to find and harder to run down (although the Indians have been known to catch deer by running them to exhaustion). Their usual diet is less than 1500 calories per day. A tortilla with some cooked beans, plus a weak corn-water preparation called "pinole" is the main fare for these high-country people who suffer little from the health problems related to animal proteins and fats.

3. A final factor may not be one which we can copy, but an awareness may help us. These Indians live in cabins and caves far from the "civilizing" influences of jet travel and super markets. Time is not the stress agent but only a concept of how long it takes to reach the neighbors' cave or hut.

In the simplest of words, if you want to be fit for endurance-type activities, develop a strong cardio-vascular system and avoid the diseases of modern

man (heart disease, cancer, diabetes). Begin sub-maximal physical activity as a child and continue throughout your life. Eat sparingly of a diet low in animal protein and fats, live in the wide open, uncrowded spaces, close to nature and far from the noise and time-related stresses of our society. If you can't find all three, then latch onto two and live them with conviction. You may be a pioneer in saving our most valuable natural resource—people power—from the destructive forces of inactivity and gluttony.

Yes, a 15-year-old Tarahumara boy can run 100 miles between sunrise and sunset—because his lifestyle from early childhood prepares him to do it. ●

ALMOST THREE FOR THREE FOR THE U.S.

by Jerome McFadden

Jerry McFadden, an American, formerly coached in Morocco. He now lives in France. (See "The African Way of Running," Feb. 75.)

If the Europeans didn't get the message before this, they have now received it loud and clear. The US has come of age in cross-country running.

US runners took the individual and team title in the men's junior division, the individual and team title in the women's division, and was in line for the individual title in the men's senior division until the last half-mile of the International Championships at Rabat, Morocco, in March.

This was the 61st running of the "International." For the three past years, it has been an open, honest international cross-country championship. Prior to 1973, it was primarily a European meet, with an occasional outsider. The US usually sent only a women's team.

This year's meet was held inside the Souissi Hippodrome, the major Moroccan horse track on the outskirts of Rabat, the Moroccan royal city. The hippodrome's formula is now a set-piece with this meet, as the organizers feel it is the best way to control the races, the best way for the spectators to see the entire event and the most "neutral" terrain for the varied backgrounds of the world's cross-country runners. This latter point is hotly debated by the many European runners who specialize in the hill, steeple barrier and mud routine.

The American junior men set the trend for the day. Bobby Thomas (see "Interview" this issue) dominated the field from start to finish, covering the 7.8 kilometers in 21 minutes flat, a full 18 seconds in front of the second-place runner. The team backed him up solidly with a fifth (Dan Clary), eighth (Roy Kissin) and 15th (Ralph Serna) for a winning score of 29

points. This retained the individual title brought to the US last year by Rick Kimball and bettered last year's team score by seven points.

The US women immediately took up the relay, beating out a tough New Zealand team, 44-50, with Julie Brown winning by five seconds over Bronislaw Ludwiczowska of Poland.

And then it was time for the senior men. There were 27 teams on the line and too many top-class runners for anybody to pick a favorite: Manfred Kuschmann of East Germany, the European outdoor 10,000-meter champ; Frank Shorter; Emiel Puttemans; Erik de Beck, last year's winner; Pekka Paivarinta of Finland, the 1973 winner; John Walker; Mariano Haro of Spain, the eternal runner-up in this race, and Ian Stewart. But no one took Stewart too seriously as he had just won the European indoor 3000 meter championship only a week earlier. It is a standard European cliché that you don't mess around indoors and run well in cross-country, too.

Walker, of New Zealand, used his indoor speed as soon as the gun went off and led the crowd through the first kilometer at about 4:10-15 mile pace. The upfront group for the first few kilometers was Walker, Zaddem of Tunisia, Stewart of Scotland, Smedley of England, Haro, Puttemans of Belgium, Haddou of Morocco, Robertson of New Zealand, and an unknown American named William Rodgers. By the halfway mark (six kilometers), there was only Haro, Stewart and that American named Rodgers.

To everyone's surprise, it was Rodgers who was setting the pace and forcing accelerations! Stewart said afterwards that he knew he could handle Haro if they were together at the end, but that he knew nothing about Rodgers and therefore had no idea of what to expect from him.

Haro made his break a half-mile out with a strong surge. Stewart went with him but Rodgers faded. The Scotsman jumped Haro with 150 yards to go and held the lead to the end, winning by one second at the tape. Rodgers was six seconds behind Haro, who was the runner-up for the fourth consecutive year.

Ian Stewart had actually given up running after taking only a bronze medal at Munich. He tried bicycle racing and won several bike races on the road last summer.

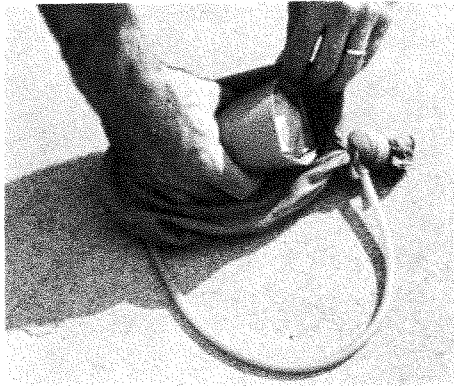
But he decided in the fall to see what kind of running shape he was in. After three races and three victories, he was already back among the best in Britain and decided to continue with this race as his winter goal. He now feels that he may stick around until Montreal. ●



Julie Brown (left, shown racing Lynne Bjorklund in the AAU championship) was an easy winner in the women's International. (Jeff Johnson photo)

MAKING A BROWN-BAGGER'S SPECIAL

by Peter Riegel



Riegel is a mechanical engineer living in Columbus, Ohio.

Two years ago, my running had progressed to the point where I was ready to stop formal workouts and start using my feet to save some gas. I wanted to run to work. Since my office is 4.2 miles from my home, I figured that I could run to work, shower and change clothes at the office, do my work, change back to my shorts and run home. Other routes, somewhat longer but more scenic than the minimum, could be used to vary my daily routine and give me a nice round 10-mile day. Once a week I could drive in to exchange clean work clothes for dirties.

There was only one problem. I have brown-bagged my entire adult life, finding that I prefer my wife's sandwiches to cafeteria food. I like my brown bag lunches, and didn't want to give them up. But how to get them to work? I hate to carry anything when I run. It makes me feel unbalanced and awkward. How could I carry my lunch to work?

A local camping store advertised a belt knapsack that looked like it might do the trick, but there was too much room. The lunch bounced all over. It didn't feel good unless the knapsack was packed so tightly that nothing could move inside.

There was one alternative left, and I took it. I made a lunch carrier that has served me well and cost practically nothing.

To make the belt carrier you need two things, a length (about three feet) of quarter-inch surgical tubing and the sleeve from a discarded garment. If you don't know where to get surgical tubing, use a piece of inner tube or scrounge something else. I've only tried surgical tubing because it is stretchy and handy. I suspect that other things will work as well. The sleeve should be about 18-24 inches long. I used a leg from one of my boy's old pajamas. Works fine.

Tie a knot in each end of the sleeve so that the knots are 10-12 inches apart. A simple overhand knot is fine. Tie it good and tight then cut off the end of the sleeve about an inch from the knot. You will then have a tube with a knot at each end.

Tie the surgical tubing to the sleeve so that the tubing makes a loop that fits comfortably around your waist. You will have to establish the exact length by trial and error. Be sure that the knots in



Peter Riegel models the running backpack he made from surgical tubing and a pajama sleeve.

the rubber are in between the knots in the sleeve; otherwise they will slip off.

With scissors, cut a slit in the sleeve lengthwise, about eight inches long. This is where your lunch goes. Once it is packed, you step into the loop, pull it up into place, adjust it, and away you go. The tension of the elastic keeps the slit from opening up, and the lunch is held snugly in place at the small of your back. It does not bounce around and is not noticeable when you run.

My carrier is still the first crude prototype that I made two years ago. I know that it can be made prettier, but I am happy with it as it is. It's not a big deal, but it works like a charm. ●

POTTER COUNTY

"God's Country" Marathon

FIRST ANNUAL
Flag Day
SATURDAY, JUNE 14, 1975

- * Course certification & AAU sanctioning Requested, Supervised, 26 miles, 385 yards.
- * Sponsored by: Potter County Recreation, Inc.
- * Race to be run on US Route 6 beginning at Galeton in the Pine Creek Valley, west to Coudersport in the Allegheny River Valley.

Ralph J. Wentz, Sr., Race Director
P. O. Box 117
Ulysses, Pennsylvania 16948

June 28, 1975 7:00 AM

**National Junior USTFF
Championship

Contact: Dale Roe, 1104
Moorland Rd. # 3, Madison, WI 53713 (608)
257-5239

2nd annual

MADISON MARATHON

- * Scenic running in Wisconsin's Capitol City
- * Accurate mile markers at every mile
- * Time splits every five miles
- * T-Shirts for all finishers
- * Six Divisions with 38 Awards
- * Course record 2:36:33 by Tom Slater

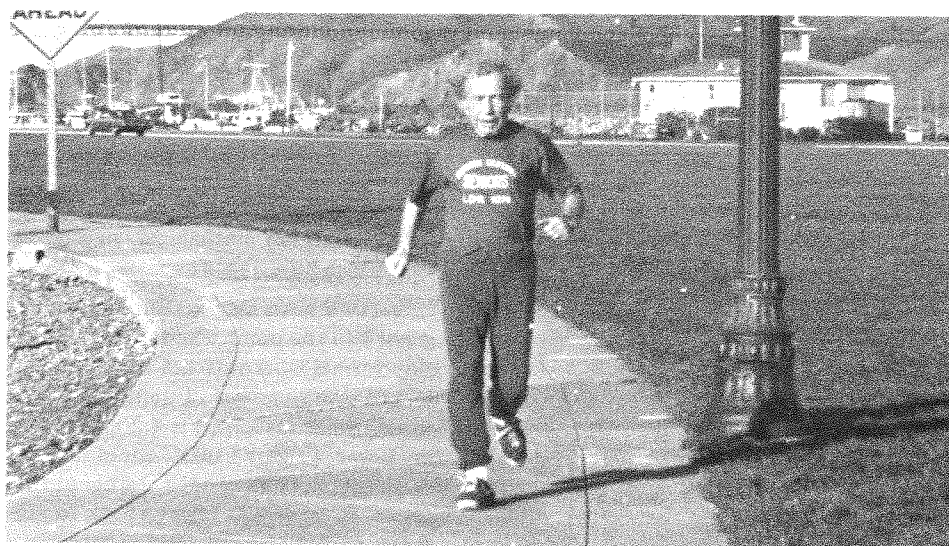
A NEW BEGINNING AT AGE 65

by Ben Hirsch

I am a septuagenarian. By the time this exercise in self-back patting appears in print, I will have been around this little planet 73 years. You note that I don't use the word "old," simply because I don't feel old and neither do I feel young.

I am a runner. I am a member of the San Francisco Dolphin-South End Runners Club. Last year, the club gave me a very nice plaque which stated that I was the "oldest active competing long distance runner." I was very much pleased to be so honored, but am wondering whether the wording on the plaque is a bit exaggerated. Yes, I am active, I am the oldest in the club, but am not sure that I am a competing long distance runner.

I run various distances. The longest



Ben Hirsch runs with the Golden Gate Bridge as a backdrop.

thus far was a leisurely run of 17 miles. I am not a marathoner but hope to become one when I reach the age of 75. However, I have been officially declared a marathoner by virtue of having participated in the Pikes Peak marathon run last August. I was the oldest participant there, and did the 13-mile ascent to the summit.

My physician would not permit me to participate in this event and would not sign my application form. So I had to go to runner-doctor Joan Ulyot for an okay.

Upon my return home, I wrote a long letter to Dr. William Raskoff of the Presbyterian Hospital in San Francisco, who is conducting a research cardiology study of "well-conditioned athletes." I am the oldest participant in this study and Dr. Raskoff asked me to give him a candid description of how I felt during this adventure. I told him, in part:

"In truth, I must confess that I was surprised at the ease with which I accomplished that difficult climb for any age, especially my age . . . The only time I experienced difficulty in breathing, but only slight difficulty, was on the last mile. When on top, I experienced no difficulty in breathing, was in no need of supportive oxygen and was only slightly fatigued. . . I was especially surprised that after four days of steady and almost all-day mountain climbing, I noticed no visible symptoms of tiredness and was able to enjoy the rest of the days as I would have had I not done the work I did. . . I did not fall and either slightly or seriously injure myself."

I am not a life-long runner. My serious interest in running began at the age of 65. I'm writing here in the hope that what I've achieved as a runner may inspire other men and women of my age and younger to get up and go out and permit running to enhance the quality of their lives as it did mine.

Although it is still questionable whether people who run or engage in other forms of exercise live longer than those who don't, my running experience has convinced me that the physically fit person does have a life of higher quality. I also believe that running may help the runner learn who he is. By making this discovery, he may find that he likes himself, and in the process he also gets to like his fellow humans and other living creatures.

Ten percent of Americans, some 22 million of us "senior citizens," are over 65. What is happening to us? How do we live? What is our standing in our society? Recently Ralph Nader gave this answer:

"Within a hyperbolic, youth-oriented society and economy, these citizens are being increasingly 'structured' out of their just share of material, psychological and social benefits. 'Out of sight out of mind' is perhaps the most succinct description of the workings of the institutional and individual forces on the elderly. More and more they are separated from the rest of society by a kind of geriatric segregation as consumers, residents, relatives, victims and other roles which they choose or are compelled to assume. There is a colossal amount of collective callousness that pervades society, from the organizational and individual levels."

Obviously, I am not naive enough to believe that running can solve the problems of the millions of elderly citizens. But a regular disciplined regimen of running or similar exercise can add zest to our remaining years of life. Very often it can actually change our lives and bring about not only new physical vigor but also emotional as well as spiritual strength. It is a great pity that so few of us avail

NEW!



Binders are now available for your *Runner's World* back issues. Preserve and protect a year's worth of your favorite running magazine inside a custom-designed red (with gold printing) cover. Only \$5.95 each.

ORDER FORM

Please send me _____ RW Binders @ \$5.95 each.

Name _____

Address _____

City/State _____

Runner's World, Box 366, Mountain View, CA 94040

ourselves of this means to a happier life.

Recently, a non-running friend of mine, a prominent attorney and civic leader in Chicago, sent me this note: "Ben, I marvelled that a man of your age should possess so much stamina, energy and determination. You are an example to younger people to follow."

And in the same vein, a few years ago, Dr. Kenneth Cooper, author of the runners' bible *Aerobics*, encouraged me in my quest for a fuller life with the following: "Just a brief note to compliment you on your excellent response to the aerobics program. I only wish that more Americans had the determination and perseverance necessary to rejuvenate their physical lives during the later years. Again, my heartiest congratulations and I hope that you are able to continue your program for many years to come."

That note was written in 1971. I am still at it now in 1975.

It all happened when the family moved to California from Chicago. We found a place to live in Santa Monica, some two blocks from the beautiful Santa Monica beach. As long as I can remember, I was a compulsive walker. I enjoyed greatly my beach walks. The running beginnings were rather innocent. Perhaps I began this activity because I saw a few others do it and decided to try it myself.

It was really tough. At the start, I could run no more than a quarter-mile without getting out of breath. I recall looking at my watch to notice the elapsed seconds. I stopped often and then walked. But for some entirely unknown

reason or reasons I persisted and devoted more and more time to this thing.

Then somehow Dr. Cooper's book *Aerobics* came into my possession. That book gave me the needed push and also the logical and simple understanding of what I was doing and why. After a few weeks, I celebrated a one-mile non-stop run and began to enjoy it. And after a few more weeks of virtually daily jogging, I was ready for two miles.

It was in August 1970 that for the first time in my life and at the age of 68, I competed in a sport. It was a four-mile race. My time was about 43 minutes. I was presented with my first Certificate of Award as the oldest participant and was greeted with applause by the audience.

This experience boosted my ego somewhat and greatly contributed towards my determination to continue running and gradually increase my mileage.

Two years later we moved to San Francisco and on my 71st birthday in April 1973 I joined the DSE Runners Club.

I run now virtually every day, some 35 miles a week at an 8½-9-minute pace. Last year I logged 1620 miles and participated in 34 races, including the Bay to Breakers run where I was the second oldest. (Dr. Paul E. Spangler, 75, was the oldest participant. See his "Age Handicap" article in the April *RW*.)

Some of the runners I practice with daily emphatically refuse to join any kind of organized group and choose not to compete. Perhaps they are extreme examples of runners who seem to have acquired the reputation of being loners.

But I find that running with a group or participating in a "race" gives me additional strength during the run. I run better than I do when I run alone or with a few friends (though I always tell myself "take it easy, young man, all you are going to get is a ribbon." I rarely come in the last and am almost always the oldest.

I hope that belonging to a group and running with a group, and their awareness of my age, will exert some influence on other runners and will inspire them to continue running as long as they can. And, additionally, when participating in organized runs and reaching the finish line, I come to grips with a form of anxiety experienced by all competing runners. To conquer this anxiety heightens my self-esteem—a most important ingredient for a happier life.

Running is hard work and often very hard work for the person my age. It requires a lot of discipline. It puts the entire system under a great deal of stress. People who are inactive, and especially

the elderly, fear stress and try to avoid it. You see them sitting in front of their TV or on park benches, hours upon hours—pitifully.

"Complete freedom from stress," says Dr. Hans Selye, noted physiologist and author of several books on stress, in a recent issue of a magazine read by thousands of elderly, "is death! Don't try to avoid stress. It's the very salt and spice of life. Learn to master and use it."

I discovered that running is the "spice of life." Running has taught me how "to master and use it." It helps me fight my advancing age and deterioration that is supposed to come with it. Most of us give up too soon and make the fateful decision that we are through long before we really have to.

The running experience keeps me healthy. Rarely do I get sick. I also stay healthy emotionally at an age when my contemporaries live lives of fear, insecurity, anxiety, depression. Movement, the ample intake of oxygen and its use, the outdoors, the sky, the waters of the San Francisco Bay, the cold winds, the summer heat, the perspiration—all that and much more has a salutary influence on my mind.

Now that I am retired, running fills many hours of my leisure time in a wholesome and enjoyable way. I feel alive to a degree that I did not believe possible when I decided to make my first run eight years ago on the Santa Monica beach. I now run not only to keep alive, but especially to get more out of my life. ●

first annual

Greater Akron 10 & 20 km Road Runs

Fast, flat loop course thru city streets of the RUBBER CAPITAL OF THE WORLD.

Sunday June 29, 1975, 1:00 pm, with proceeds to the Summit County Kidney Foundation. Merchandise awards to first five each age group, men and women. T-shirts, post run meal, reasonable overnight accommodations. Contact Henry DeWyk, YMCA, 80 W. Center St., Akron, Ohio, 44308. (213) 376-1325.

Come and be a part of Akron's Sesqui-centennial Celebration.



2nd Annual

Alief Track Club Summer Relays

Houston

July 3-4

AAU Age groups, boys & girls

10 divisions

\$2.00 entry fee due June 30

contact: Jerry Montgomery
Alief Track Club
P.O. Box 475
Alief, TX 77411

Marjorie Kaput
and Diane Barrett.

THE TWO FASTEST TEENAGED GIRLS

by Don Tate

RIGHT: Diane Barrett, 13, was the youngest female ever to break three hours when she ran 2:55 at the Fiesta Bowl marathon. (Donald Barrett photo)

BELOW: Marjorie Kaput, 16, already has a marathon time which only five women have beaten. She did 2:51 in December. (Allan Day photo)



Tate is Marjorie Kaput's teammate in the Phoenix Track Club.

The desert around Phoenix, Ariz. has long been an attraction for winter visitors. It is full of strange and exciting wonders. Every once in a while, something quite unexpected happens in the desert. Phoenixians have gotten used to that. But nothing could have tipped them off to what was going to occur last December on the road from Cave Creek to Scottsdale.

Marjorie Kaput, 16, and Dianne Barret 13, of Phoenix placed one-two in the women's division of the Fiesta Bowl marathon with world age-group records. Marjorie's 2:51:38 was the seventh fastest time ever. She was also the youngest ever to have broken three hours when she finished the race. But that was before Diane crossed the finish line several minutes later.

Barrett shocked the crowd and other competitors with her 2:55:12 in a race which far exceeded their expectations. "We had figured out that 3:20 was about her maximum," said her father. "That was based on a 15-mile run in which she ran 1:50. There was no idea that she was going to run so fast."

Neither girl had planned on the Fiesta Bowl race being an all-out effort. Kaput had not even planned to break three hours. "This was supposed to have been an easy run," she said. "I planned on going to Mission Bay (San Diego in January) for a fast one. But then I got excited when Diane and Gabrielle (Schiess, a Swiss ski instructor at Flagstaff who ran 3:01) came up close at 17 miles. I got a little scared. I thought, 'If I am going to win this thing, I better get going.' The first 10 miles had been easy so I felt I had to pick it up."

Although neither girl had any indication that fast times were coming, both have solid credentials. Marjorie ran her first marathon in February 1974, the National AAU women's championship. Her 3:07 seventh place indicated that she was well suited for handling the distance, though she claims the marathon is not necessarily her primary event.

"Marathoning was supposed to be just a fun thing, something different from track and cross-country. I didn't know I was going to run San Mateo until two weeks before the race. Mr. Moore (Fred Moore, coach of the Phoenix Track Club) came up to me two weeks before the race and said I was going. I said 'Oh, okay.'"

The junior at East Phoenix High School excels at a variety of distances and

levels of competition. At the National AAU girl's track championships last spring she was third in the two-mile. She placed 11th in the women's division at the California state cross-country championships last November. She followed that with a 14th place finish in the girls division at the Nationals in Dayton after falling near the end.

Barrett's top performance at the national level also occurred in Dayton as she finished 12th in the 12-13 age division. She has run a 5:06 mile.

Despite these performances, few expected that the two would be involved in one of the fastest women's marathons ever.

The Fiesta Bowl race is an infant among the big marathons around the country. But it has had spectacular times in the last two years. Pete Span won the 1973 edition with 2:18. Dennis Williams took last year's with 2:15. Part of the reason for the fast times is the low-30s desert temperatures on race day. But the major reason is the course itself.

It begins in the small community of Cave Creek and winds its way to Scottsdale Community College. The course is slightly uphill the first five miles. Then it takes a slow, gradual decline towards the finish. Both girls said that the course played a major role in their races.

"The downhill part really helped," said Kaput. "Also, it wasn't complicated. It's straight most of the way. The only bad part is between 17 and 20 miles. It takes some turns through a residential area and the roads are full of holes. It was a good course except for the aid stations. We could have used a little more help at the aid stations. It was a little slow in that part."

"I thought it was nice," said Barrett. "I liked the fact that it was point-to-point. I don't think I would like going around in loops. I saw the course for the first time last year when I came out to watch the race. I had been reading a lot about marathoning in *Runner's World*, but I hadn't reached a decision yet about running one. My mind was made up for me after watching Reggie Heywood run 2:57 (he was 10 then).

"I remember seeing this little guy running along in those big shorts he had on. All the time he was running he was really pumping away. After I heard his time at the finish line I told myself, 'If Reggie can do it I can, too'. He was kind of an inspiration for me to run Fiesta Bowl."

Stories of young marathoners putting in huge amounts of mileage are common. The immediate benefits are sometimes quite striking. When asked what special training they did in preparation for the race neither girl indicated anything different from their normal training pattern.

"I had a lot of long distance coming off cross-country season" said Marjorie. "All I really did was train on distance runs. Then, just before the Nationals, I did a little bit of speedwork for sharpening purposes. I guess that speed carried over into the marathon. I really didn't do anything special especially since this was supposed to be a slow run."

Diane's training under Dave Williams of the Arizona Track Club followed much the same lines with an emphasis on 8-10-mile runs. "In the summer, I did a lot LSD (long slow distance). Then in cross-country I did mostly hour and 15-minute runs."

Her father probably pointed out the key to her success when he said, "She hardly ever misses a day. She usually runs 11 out of 12 days. She's been very consistent in her training since last summer. Although she runs mostly LSD, she's running quite often."

A diet of long distance training seems to be the key for both girls as they ran remarkably even-paced races. Marjorie was 33 minutes at five miles, 66 at 10 miles, 1:38 at 15, and 2:10 at 20. What happened between 10 and 20? Why was that 10 miles two minutes faster?

"The first 10 miles had been so easy and we were going downhill then. Actually, it seemed to take the longest time to get to 20 miles. Maybe that's why I ran faster. I wanted to get there. I felt really strong just after 20."

Diane had times of 35, 67, 1:39, 2:14.

Unexpected world records have strange effects on people. Some suffer a letdown afterward. Will this happen to Marjorie and Diane?

"I don't think the race has changed anything. My goals are still the same," said Marjorie. "The only thing that has changed is that the people at school know me now. Before, I was just a face in the crowd. The school paper wrote an article on me and that seemed to change things at school." She said she won't run another marathon until December.

Diane's race resulted in her meeting the present world heavyweight boxing champion, Muhammad Ali. "My father and I were down at KPHO Channel 5 for an interview. Ali was in town and was down at the TV station. Somebody told him what I had done. He dropped everything he was doing and said 'Come on, let's go for a run.' He was really quite a nice man. He said he runs five miles every morning in about 45 minutes."

Diane added, "My goals haven't changed any at all. I would still like to get under 5:00 in the mile and 2:20 in the 880. I don't know when I'll run another marathon. Maybe Culver City or Fiesta Bowl again in December."

Women's marathoning seems now to be heading in the same direction as the men's. No longer is it just an event for women who were too slow for the 800 or 1500 meters on the track. Now, women with good track speed are stepping out onto the roads. Fast times are the rule rather than the exception. Sometime soon, times like Jacki Hansen's 2:43 will be necessary to win all top races. Don't be surprised if two young Phoenix women are running them. ●

The Jim Ryun Running Camp

For Boys 9-19



3 Locations / 4 Sessions

Pepperdine University, Malibu, Ca. June 29-July 5
Cleveland, Ohio, Day Camp (Coed) July 28-Aug. 1
Marymount School, Santa Barbara, Ca. Aug. 17-23
or Aug. 24-30

For Free Brochures Write or Call:

P.O. Box 30325
Santa Barbara, CA 93105
(805) 687-0725



Learn to Run with Ryun
A Division of Invest West Sports

Runners

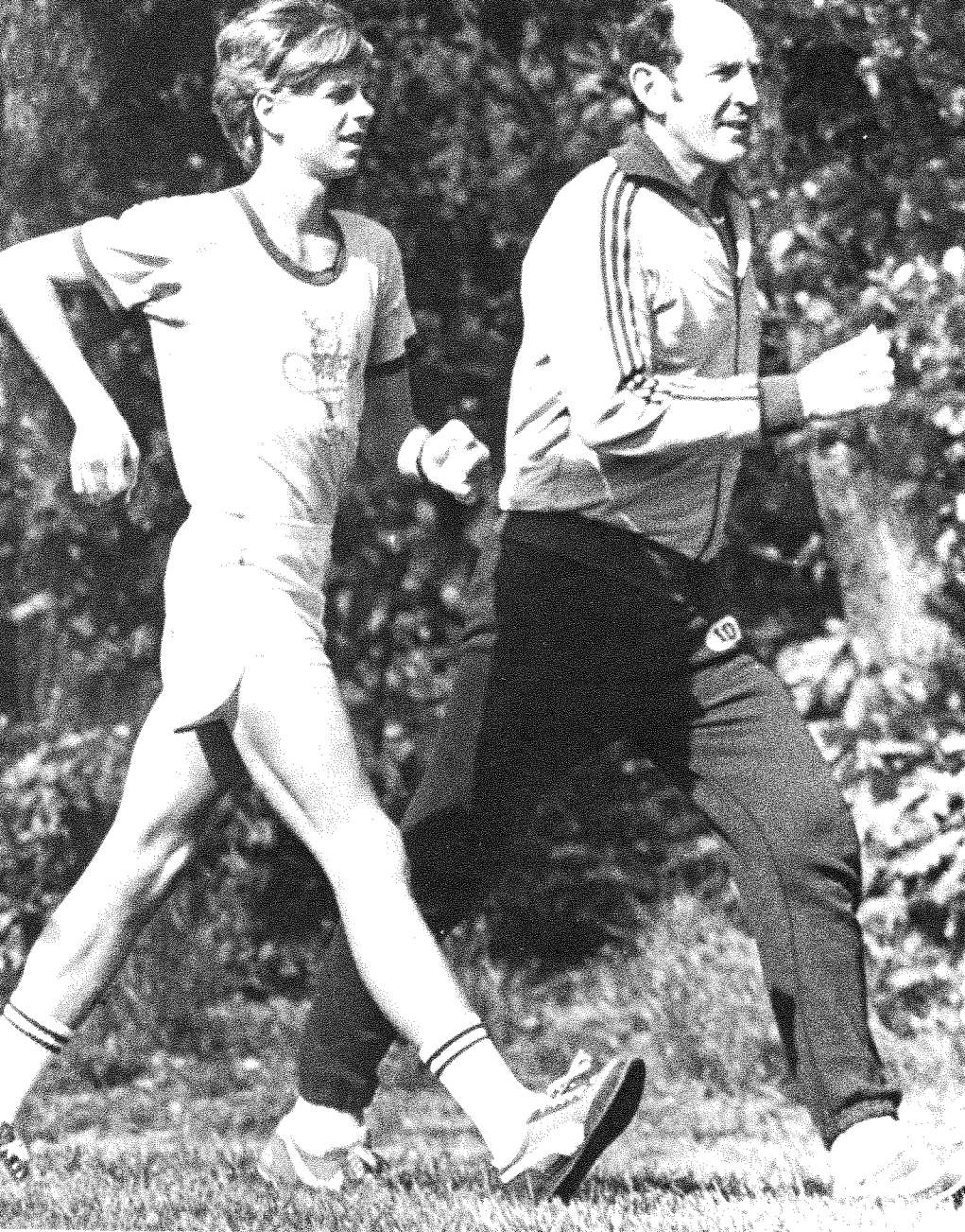
880 - Marathon

Boys & Girls
All Ages & Experience

A Once-In--A Lifetime
Event This Summer

write:

Box 1-A
Columbia, VA. 23038



Bruce MacDonald, three-time Olympic walker, coaches young internationalist Jim Murchie (left). (Steven E. Sutton/DUOMO)

He has had more than his share of champions (who will be mentioned later). But now he has really picked a winner. She is a 14-year-old girl in the school's junior-high division named Joanna Shima.

All Joanna did last year was beat champions many years her senior in a variety of events. She beats boys in high school races and walked an 8:02 outdoor mile. She took fourth in the AAU women's five-kilo in Los Angeles. She placed third in world competition in Stockholm.

Then, she quit.

"I guess she really felt there were other things she wanted to do," said MacDonald resolutely. "She just didn't want to walk. I never got the real story." He paused. "She does not really know what she did or how good she is. She could definitely (go on to) break several world records."

MacDonald did not pressure her, this protege with unlimited potential. He has let her be, and if she ever decides to go at it again, she can find MacDonald helping others who are not as promising with their form and conditioning, with their plan fare and travel arrangements, what they want out of life, race walker or not.

Bruce's team at Port Washington may be the only one of its kind in the country, and it probably has been his major source of fulfillment. His first youngster, back in 1959, was Ron Daniel, who has since won a slew of titles including national championships at one mile (indoors) and 30 kilos. Bruce also had Alan Blakeslee, who ranked nationally before giving up the walk to join the Peace Corps. That was in the early '60s when MacDonald coached as many as nine walkers in the same year. Then, inexplicably, there was an eight-year hiatus in which not one student entered his program.

Phase Two began in 1971 with Ellen Minkow, now a Syracuse University sophomore. She gave the sport some rare publicity—the type, however, about which purists might frown—when she won the IC4A indoor mile last year from an all-male field. Through no fault of her own, of course, sport writers pounced on the race as a Battle of the Sexes instead of covering it uniformly with the other events.

"I was quite elated," said MacDonald, "that she held her own against supposed-ly stronger competition." Minkow added

Athlete-coach-official Bruce MacDonald

RACE WALKING'S MAN OF INFLUENCE

by Marc Bloom

Is there a race walker out there whose activity has not been influenced by Bruce MacDonald? Indeed, is there a walking event or program that has not been stimulated by the MacDonald touch? Probably a few, but it would take an eagle scout with a string of merit badges to find them.

At the risk of putting the toe before the heel, let us take a quick look at the perspective acquired by MacDonald in his 24-year association with the sport before delineating his work as a competitor, coach, writer, official, judge and administrator.

The place is Port Washington, N.Y., on Long Island's North Shore, not too far from the City Line. Bruce has been teaching health and physical education at the high school of the same name for 18 years. He also has coached a walking "team" there, on and off, for most of those years.

to her record last year the national women's 10-kilo title and runner-up spots in the indoor mile and outdoor five-kilo.

MacDonald's current crop includes Jim Murchie and Debbie Naybor, both of whom have been developing predictably. Jim, as a 16-year-old junior, consistently placed well in AAU events (since his high school schedule was not rewarding enough) and had a best time of 48:38 for 10 kilos. He made the US junior team and finished behind the more advanced Russians in the international dual. He's looking forward to this season's rematch. Naybor, also a junior, was 10th in the national five-kilo. More recently, she won the Met AAU indoor mile.

With three of his clients in the top 10 in that national women's 5000 last June, it was yet another milestone for MacDonald. But he and his crew almost did not get there at all. He had to raise some funds, and then added a pile of his own to travel first to the west coast and then to Stockholm for the world meet. (Minkow did not go to Sweden because the Syracuse Chargers, with whom she is also affiliated, were unable to pay her way according to MacDonald, who also served as coach/manager of the team.)

Hurdling is not a logical prelude to race walking, but that's how MacDonald, now 47, started. In 1946 he was the New York City hurdles champ for Bayside High in Queens. His success continued at New York University (IC4A runner-up) and for the Pioneer Club in AAU events (three Met victories).

MacDonald drifted from hurdling to the 10-event All-Around competition in 1952. Fortunately—for MacDonald and for walkers all over—one of those events was a half-mile walk. He first try clicked, but it was two appearances shortly thereafter that really propelled his psyche.

"I had trained only six weeks (for the walk)," said Bruce, "for a 10-mile race down in Baltimore. They were giving away 15 trophies. I had never won a trophy, even in running." He placed 14th.

"Two weeks later," he recalled, "I was fifth in the national 20-kilo. That really caught me."

It also caught a lot of others in walking who, even then, had come to believe that success was based mainly on long, intense preparation. How could two months be enough? It wasn't—not for the real Big Time. MacDonald trained year-round for the next decade, leaving behind him a trail of distinguished achievements.

Most notable were his national titles and 10 kilos (1958 and 1959) and 15 kilos (1959) and his entry into the

select three-Olympic club. Bruce competed in Melbourne (1956), Rome (1960) and Tokyo (1964). Each time he finished in the middle of the pack—15th, 23rd and 26th, respectively. The first race was the "20", the next two at "50".

MacDonald recalls the mingling more vividly than the athletics. "The thing that really struck me, especially in '56, was living with people from all over the world. The way we all got together and tried to develop friendships. We'd use sign language and drawings when there were no interpreters around."

Political overtones have replaced much of the sweatshirt-trading at recent Olympics, and at Montreal extensive security may give the "Village" the aura of an armed camp. The walkers there will be particularly resentful, since the International Amateur Athletics Federation (IAAF) has axed the 50-kilo from the program.

Oddly, MacDonald does not seem outraged about it. Heresy? No. Here's his explanation: "There still is the World Championship (Lugano Cup) every other year, and I think it will be put back in the Games for 1980." Bruce pointed out that since Moscow will be the next host, it will apply its own brand of pressure for reinstatement of the longer walk because of its perennial superiority in the event.

Since 1966, MacDonald has trained and competed sporadically, dwelling upon directing the sport rather increasing his trophy collection. Still, the flame has not been entirely extinguished. Take Norway, 1972. Here's Bruce, the Olympic walking coach, over in Europe with the US delegation. It's about three weeks before the Games and US entry was supposed to have warmed up with some international competition. No dice, they say. Too close to the Munich races.

Enter Bruce MacDonald. . . at 100 kilometers. . . over 62 miles. "I had been training very little and didn't know I'd compete till I got out there," he said. "All I wanted to do was finish it." He took third in a field of about two dozen. "A surprise to me," he says.

New York probably has more scholastic walk events than any other state, and much of the credit goes to MacDonald. He agreed to judge many events just to get them on the program. After all, walk judges are fewer than traffic-free roads in New York. Besides, in a high school race, where infractions and lapped participants are numerous, the judge must jackrabbit from side to side, noting faults. Moreover, the state's current authoritative *Yearbook* now carries a list of top performances, and many walkers hit the tape well under eight minutes.

(MacDonald's Murchie, in a rare mile effort, did 7:05 last year for the state record.)

Including college events, MacDonald estimates that he judges at least 60 races a year. "Last week alone, I did five of them," he said recently.

MacDonald has played a significant role in the involvement of American race walkers in international events. He has been a manager and/or coach at Olympic training camps and at the Games themselves and will assume those functions again next year in Montreal. He has accompanied the Lugano Cup delegation to Europe three times, "and will be setting up this year's trip" in his role as the National AAU women's race walking chairman. The Olympic Committee (of which Bruce is a member) too has funded the Lugano trip only since 1973. Previously, entrants had to raise money themselves.

Race walkers, subject to ridicule and indifference by the public and discrimination within track and field itself, still have come a long way. And MacDonald has watched—and contributed to—that progress.

"There have been tremendous changes," he said. "More young people are into walking events. National coaches and top US athletes have recognized that race walkers train as hard or harder than those in other events."

The increased participation and sensitivity to walkers, say MacDonald, has improved the quality of high-level US walking. Bruce now rates the US third in the world behind the Soviet Union and East Germany. And he points with pride to the second place finish last year by the US women in world competition in Europe.

MacDonald still would like to see "more kids participating on a fun basis, so they don't lose interest."

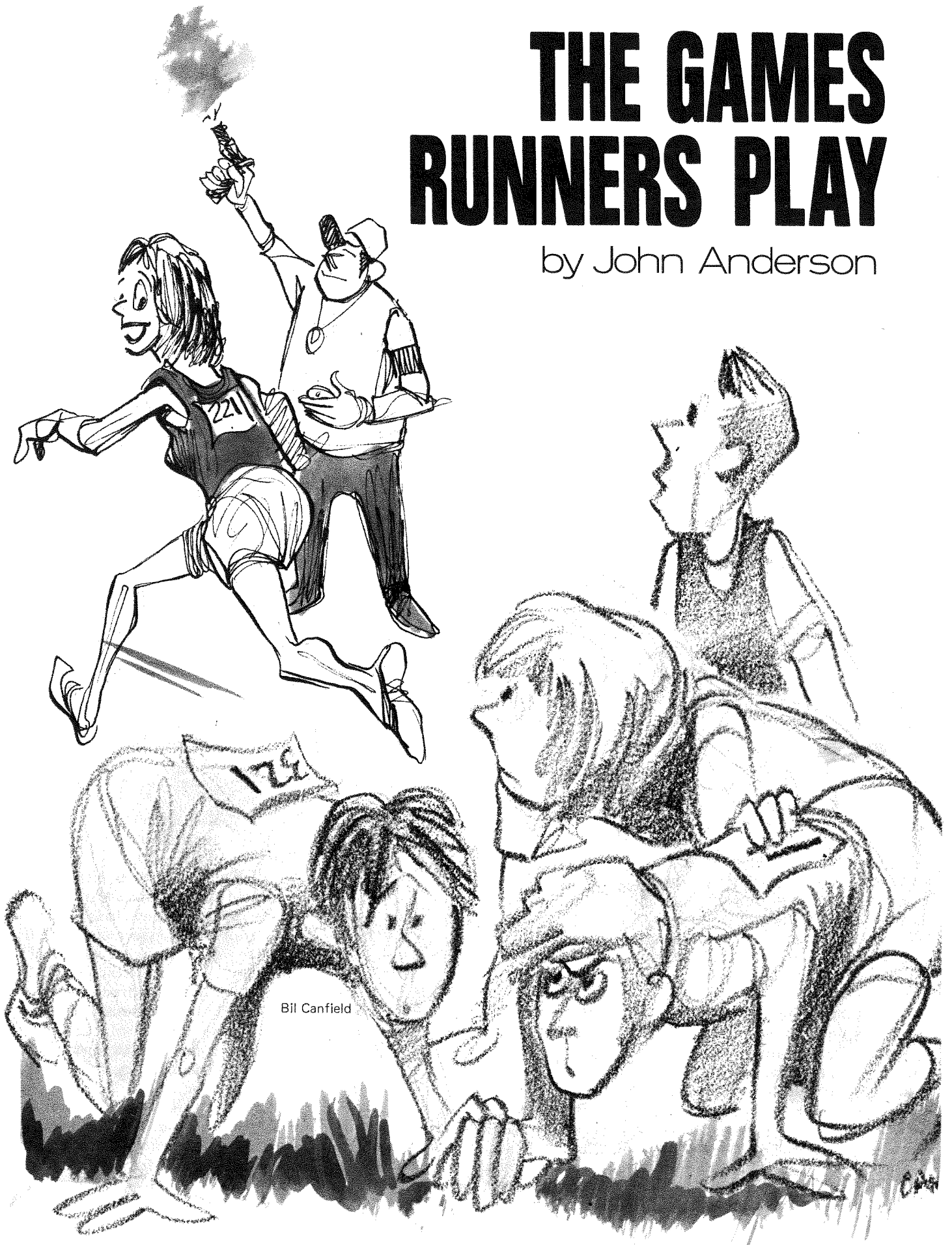
While many school programs have adopted the walk, in many instances it is on an "experimental basis" and functions only as a non-scoring event. "If there were more coaches unafraid of losing points (in conference championships)," Bruce contends, the walk would gain more enthusiasm and respectability.

MacDonald has no expense account for his various activities. In effect, he has the equivalent of at least two jobs—one non-paying. He has no complaints, though. Maybe walkers should conspire to prevent MacDonald from taking that longest of walks—the one down the aisle of matrimony.

"That's why I can do it. . . the time, the money...it would be hard for a married person to handle it." ●

THE GAMES RUNNERS PLAY

by John Anderson



Bil Canfield

John Anderson, an Oakland, Calif., veterinarian, is married to Ruth Anderson, international champion of over-40 marathons.

Stephen Potter gives definition and depth to an age-old art in his brilliant book, *The Theory and Practice of Gamesmanship*. "Gamesmanship" may be defined as the art of winning by outwitting an opponent without actually cheating. Potter's main contention is that regardless of the game, his principles apply. The specific application of these precepts to distance racing may be called "runsmanship."

The practitioner of runsmanship usually concentrates his or her efforts on the most apprehensive runners and deals mostly in the area of equipment. One of Potter's theses states that the more properly your opponent is equipped, by that amount shall he/she fail. Precious seconds may be gained over other runners by wearing one blue shoe and one red shoe. Likewise, knee-length socks which do not match are commonly worn by the runsman. The running shirt is chosen for a race with the sensitive judgment a bride applies in the selection of her gown. For the greatest shock effect the color of the runsman's upper garment should clash offensively with the color of the shorts and socks (or sock, if one leg goes bare).

The opposite situation is equally useful. If most of the runners in a race tend to dress carelessly, the runsman must dress with good taste and even elan. Shirts with impressive race credentials, even a patch of a foreign team (real or not), enhances the effort to demoralize others. Ribald graffiti may be printed on the shirt, especially if most of the other runners are of a sensitive nature.

The rank-shirt ploy, often called "shirting," enjoys much success. The unwashed shirt or vest must smell bad and even have a hint of microbial growth about the armpits and collar. Shirting is the only protection the runsman has against a slip-streamer. The shirter is often alone during a race, and is gratified to see other runners breaking stride and rhythm in order to stay a safe distance away.

Some women runners interviewed stated that going bra-less was as good as a headstart in any race where men and women are running together. Another

common gambit which has now fallen out of favor is the broken-strap ploy. The woman runs through a crowd awaiting the start of the race, pleading for a safety pin to fix a broken strap. This had the most unsettling effect on other women runners. The lost contact lens is superior to the previous two because it upsets both men and women. If practiced with poise, it may result in a near-riot as runners searching for a non-existent lens struggle to their feet at the sound of the starter's pistol.

One of the most successful women's long distance teams in the US is also an accomplished runsmanship group. These women recently changed the style of their running shorts to a tight model that has a nasty way of creeping up. The team statistician claims that their opponents lose four seconds a mile for every square centimeter of exposed buttocks.

Shoes are probably the most popular item in runsmanship, because runners have a beautiful insecurity concerning the color, fit, brand, weight, composition and tread pattern of their shoes. Mention has been made of merely wearing mismates. Modifying shoes is a more successful stunt. This can be done by dyeing a common brand of shoes some un-

usual color, or patches of leather can be glued on the sides of the shoes so that they look only vaguely like any other brand.

At the next race, the runsman flaunts the shoes during the pre-race period but answers none of the questions asked about them. Moments before the race starts, the runsman announces with a touch of arrogance that the shoes were especially made for him in Oslo, Norway, for the International Hillclimb at Voss—that is, if the race is to be hilly. Another impressive race name must be synthesized if his race is to be on a flat course.

The race may be divided into three parts: the pre-race, the race and the post-race periods. Most runsmen specialize in one or at best two periods. Only the most gifted have mastered all three. Most concentrate on developing the pre-race period because it is the longest period, anxiety among the runners is highest and all the runners are together at the starting line.

A ploy that is used some in the pre-race period is the stretch-exercise-expert gambit. The runsman first establishes a degree of authority in the art of yoga. He or she joins a group doing pre-race exercises. No matter how simple the exercise, the runsman loudly criticizes the manner in which it is being executed. If any runner in the group agrees with these views, the runsman changes to criticizing something else until all the runners are uneasy and confused.

The period before the race is an excellent time to execute the chewing-tobacco trick. The "cud-stunt", as many runsman call it, is done by privately depositing a whole package of Black Jack gum in the corner of the mouth. As the runsman explains the value of a new yoga position to a group of runners, a bag of Beachnut is produced from somewhere inside the sweat suit. Magnanimous offers of "a pinch of goodie" are made. Festoons of "tobacco juice" punctuate the yoga discussion. At the appropriate moment, there is little time left before the race and when the runsman has the other runners' undivided attention, he or she swallows a very large quantity of juice.

"Sandbagging" is so commonly encountered before a race that it is not even considered an art form by card-carrying runsmen. The sandbagger offers some form of unsoundness as an excuse for doing badly in the race. Once a sandbagger is recognized, his performance may be determined as inversely proportional to the misery that day. If a sandbagger goes so far as to take an aspirin or rub lineament on a sore leg, look out. A record may be broken. ●

FIRST TRUST-NORTH AREA "Y"

MARATHON

Syracuse, N.Y.

Sunday, May 18
10:00 a.m.

6th Annual
Sanctioned Open

Trophies, medals

Team awards (marathon only):

\$50 first
\$25 Second
\$25 Third

5 3/4 MILE ROAD RACE

Send entries for both races to:

D. Peil
406 Ruth Rd.
No. Syracuse, NY 13212

by George Sheehan M.D.

MEDICAL ADVICE

UPDATE ON VITAMIN C

A four-day seminar on vitamin C, sponsored by New York Academy of Sciences and Columbia University, produced the following findings and conclusions:

1. *Prevention and treatment of common cold*—Dr. Terence Anderson of Toronto, after studying 2349 subjects, concluded that vitamin C—in 500 milligram doses four times the first day and twice the next four days—reduced symptoms and days of sickness. Other than that, however, he thought daily intake should be limited to 100 and 200 mg.

2. *Contamination with zinc*—Du Pont investigator Dr. Bruce Korant found zinc contamination in three brands. He also has demonstrated that zinc ascorbate can inhibit growth of certain viruses.

3. *Normal requirements*—The National Academy of Sciences/National Research Council's Food and Nutrition Board reduced the recommended dietary allowances (RDA) from 60 to 45 mg.

4. *Increased need*—In hyperthyroidism, severe diarrhea, stress.

5. *Increased work capacity*—Swiss researcher Dr. H. Howland put 13 athletes on one gram of vitamin C per day and found increased work capacity on a bicycle ergometer. Dr. Howland suggested improvement was due to increase in catecholamines (adrenaline and nor-adrenalin) and increasing mobilization of free fatty acid.

6. *Ill effects due to vitamin C*—Dr. Victor Herbert and Elizabeth Jacobs of the Bronx V. A. Hospital found low B-12 levels in four of nine patients receiving one gram of vitamin C daily.

B-12 absorption appears to be a chancy thing, and borderline B-12 deficiency may be more general than realized. Where it exists, since absorption is the problem, the B-12 has to be given by injection. In pernicious anemia, B-12 should be given 100 micrograms a month. This is probably a good recommendation whenever B-12 is needed.

"ANEMIA"

Q: I am a 48-year-old runner who averages about 35-40 miles a week and runs a race every Sunday. My health has been just great, with no ailments of any sort. But I did decide to have a complete physical this year. The results showed that my hemoglobin count was a low 13.9. As a result, the physician showed great concern. Does running have any effect on the hemoglobin? (J.C., Connecticut)

A: Your low hemoglobin is a training effect. Some sports physicians have suggested that training be interrupted if a two-gram drop occurs. However, others have shown that the hemoglobin actually increases, but not to the same extent as the blood plasma increases. This explains the apparent (but not actual) fall in circulating red cells.

The most interesting "anemia" due to training occurs in horses. Under a program of frequent stressful competition and speed training, a horse's hemoglobin may fall as low as nine grams. Many trainers use the hemoglobin as a guide for training or withholding training, and also as an indication of when the horse is ready for a good race.

Your fall in hemoglobin is to a level that would suggest you are close to your peak. You are apparently strong enough to handle your present regimen without going over into staleness and exhaustion.

SIGNS OF OVERTRAINING

Q: The general indices of "overtraining" suggested by you and others

are too nebulous and subjective to be of practical use to us. Although your system of pulse monitoring is more definitive, my post-workout readings are a function of the severity of the workout and no clear pattern emerges. Para-medical personnel conduct blood hemoglobin tests and measure blood pressure, and diabetics daily monitor their urine content. Can and should runners be trained to conduct more definitive tests of their condition to avoid overtraining? (C. O., New York)

A: Believe me, I am as upset as you are that the indices of "overtraining" are so nebulous and subjective. In fact, there are even some people who say no such physiological state exists—that it is all psychological.

Unfortunately, there are no definitive chemical or blood tests to indicate the onset of overtraining. The question is whether we can listen to our bodies. Some messages come through. The pulse rate, especially if followed over a prolonged period following all-out effort, is still a first-rate test.

RUNNY NOSE

Q: Do you have any advice for a complaint of constant runny noses during running sessions outside? (E. B., New York)

A: The runner's runny nose always seemed to me to be a blessing. Running and that runny nose act to clear my sinuses and nasal passages. Whether effort itself is a factor or simply the irritation of that forced flow of air through the passages which creates this secretion, I'm not sure.

I see no reason to get into medications for this. The side-effects could be worse than any help you would get.

POSTURE

Q: I read in "Sports Medicine, Head to Toe," (Dec. 74) of Dr. Richard Schuster's opinion that running more erect will help turn off shin splints. Would you suggest ways I may be able to change from a too-forward stance when I run? (B. F., Ontario)

A: The upright posture is the badge of Bill Bowerman's runners at the University of Oregon. It is a simple matter to switch to that running form. You "run from the hips" and use the upper body for balance. An additional help is to run with your toes "floating." Grabbing the ground with the toes seems to make shin splints worse.

Address your medical questions to Dr. Sheehan at P.O. Box 366, Mountain View, Calif. 94040.

BEACHVIEW LUMBER COMPANY

invites you to:

AAU
MASTERS NATIONAL
JUNIOR NATIONAL
20 KILOMETER



June 15, 11 a.m.

huntington, long island, new york

*races in all other divisions

*free lodging available with host families on limited basis

beachview lumber company • 3124
jericho turnpike • east northport,
new york • 11731 • (516) 543-7300

RUNNER'S GUIDE TO HOUSTON

Houston offers a growing running program despite the warm and humid conditions much of the year, and boasts of fine running facilities. Most areas are flat—period. To the out-of-state visitor seeking a place to run, the following areas are suggested.

● **Memorial Park**—Located five miles directly west of the downtown business area on Memorial Drive, this park has a golf course where runners apparently are always welcome, an arboretum with shaded trails, and locker and hot shower facilities which are located at the tennis center. One may follow the arboretum trails through 265 acres of wooded land to the edge of Buffalo Bayou for a very pleasant run. Memorial Park is the site of many races throughout the year, from Road Runners Club run-for-fun events to the Houston marathon (held on the third Saturday of January over a certified course).

● **Buffalo Bayou Bike-Hike Trail**—The bike-hike trail is an approximate five-mile loop within walking or running distance of downtown. The trail begins at the Sabine Street bridge adjacent to the historic Sam Houston Park, in the shadow of some of the most impressive new office buildings to be found in any city. The trail parallels Memorial Drive and Allen

Parkway. During the months of February and March when Houston's azaleas are in bloom, a run along the trail is a real pleasure. The distance is shortened to approximately 3 1/3 miles by cutting across the Waugh Street bridge. A round-trip run from the Downtown YMCA (on Louisiana Street) to the Memorial Park Tennis Center via the bike-hike trail covers about 11 miles. Shower facilities are available at the Fonde Recreation Center at the foot of the Sabine Street bridge.

● **Hermann Park**—Hermann Park is situated near Houston's world renowned Medical Center and Rice University, approximately four miles south of the downtown business center. Simply drive south on Main Street or take one of the Main Street buses. There is a golf course, and the Braes Bayou borders the park to the east and south. One may follow the bayou for several miles in either direction. However, one must cross some streets on this run and extreme caution should be exercised when coming within striking distance of Houston automobile drivers. Houston apparently observes a 12-month open season on distance runners. Several boys and girls cross-country meets are held in Hermann Park during the fall, and the National Junior Olympic cross-country championships will be held there in 1975. Each of the cross-country runs begins at the Miller Outdoor Theater.

● **Rice University**—The grounds at Rice University are a runner's delight. The Rice track is the site of AAU all-comers meets each Thursday evening during the summer months starting at 7 p.m. These meets are very low key and offer distance events only (880 to three miles, men and women). The procedure is to toss a quarter into the kitty and show up on the starting line. Perhaps 60-100 runners participate in each meet. A run around the perimeter of the Rice University is most enjoyable. The three-mile course is shaded by a natural arch of oak trees. A leisurely run through the grounds will give the runner-visitor a first-hand look at one of the nation's most beautiful campuses.

● **Glenbrook Park**—This is the site of the University of Houston's home cross-country races, as well as the site of the 1973 NCAA championship. One may reach Glenbrook Park by taking the Gulf

Freeway (Interstate 45) toward Galveston and exiting at Howard Drive. This is another of the city's fine golf courses, and as in Memorial Park, runners are welcome. The swimming pool is open during the summer months and during last August. The local RRC conducts run-swim biathlon there.

● **San Jacinto Monument**—The tourist in the Houston area will more than likely take in the San Jacinto Monument and Battlefield, as well as visit the Battleship Texas moored nearby on the Houston Ship Channel. A 5000-meter course is laid out on the Battlefield grounds and the Gulf AAU conducts a 15-kilometer run on this course during October.

Some of the newer housing developments offer outstanding running areas with golf courses and trails through wooded areas. One such development is in the northeast sector and is the site of three Gulf AAU championships (15, 20 and 30 kilometers).

(For information on long distance running in the Houston area, contact Pete League at (713) 665-0732 or drop a note to him at 5471 Jackwood Street, Houston, Tex. 77035. Alternately, just ask information for the telephone number of the Gulf Association, AAU.) ●

Seventh Annual FREEDOM MARATHON June 29 1975

A Race Put On By Runners For Runners
 Certified course on traffic-free roads in beautiful, tree-shaded Allerton Park near Monticello, Illinois. Low cost housing in Allerton House, a converted country manor, 1/2-mile from starting line. Reasonably priced spaghetti dinner night before race for runners, families, and friends. Pre-race breakfast free to all runners. Trophies to top 30 in open division. Trophies also to first woman and winners in age groups 17 and under, 40-49, 50-59, and 60 and over. Certificates to all finishers. Entry fee \$3.00. Entry Blanks And Complete Information
 By Writing: ILLINOIS TRACK CLUB
 Box 2976 Station A
 Champaign, Illinois 61820

Bay to Breakers T-Shirts

Get your souvenir of America's largest distance run (over 5000 competitors) by sending only \$3.25 (price includes mailing) to: Box 967, Los Altos, CA 94022. NEW DESIGN this year (multi-colored with trim on neck & sleeves...proceeds go to PA-LDR Travel Fund.

NAME _____
 ADDR _____

SIZES: _____ M _____ L _____ XL
 _____ SM (Last Year's Design)

Classified Advertising

NIKE-TIGER SPORT SHOES — The largest supply of Nikes at the lowest prices available in the Midwest. Immediate delivery on all orders. Write or call: Nike-Tiger Sport Shoes, 1203 E. Harding Dr., Urbana, IL 61801 (217) 367-0808.

PALOS VERDES MARATHON — Saturday, June 14 at 8 a.m. New course for "The Most Scenic Run in the World" through the rustic Palos Verdes hills and along the rugged Pacific coastline. SPA AAU sanctioned. 43 awards, 6 divisions. 600 finisher T-shirts. \$4.00 entry fee by June 6, \$6.00 after. For application write Kiwanis Club of Palos Verdes Marathon, P.O. Box 153, Palos Verdes Estates, CA 90274.

THIRD ANNUAL MEMORIAL DAY RACE—May 25th. 7.5 miles across Pinellas peninsula. Seven age groups and many special awards. Contact Tom White, 1250 Jungle Ave., St. Petersburg, FL. 33710.

MARIST COLLEGE DISTANCE RUNNING CAMP—Aug. 17-22. Best camp in country! Special guests who lecture, run & meet individually with campers: Marty Liquori, Dave Wottle, other top international stars named soon! Expert coaches & counselors. Best food & housing offered at any camp—unlimited seconds on all food. Olympic-size pool. Universal weight room. 5 different teaching stations. Contests, drills, games, prizes. Run on all kinds of terrain including 2 golf courses. Camper receives 30 page individualized running profile on himself when he leaves including videotaped form analysis. Special rate for 3 or more from same school. Write immediately for free brochure: Rich Stevens, Track Coach, Marist College, Box 814, Poughkeepsie, NY 12601.

CAN — AM INTERNATIONAL CAMP—Eastern United States and Canada's finest track/field & cross country instruction. Age group, jr., sr. high school, men-women, summer track/field event programs. August distance training camps coaches' clinic & collegiate-masters track clinic. Write: Can-Am International, c/o Country Hills Touring Center, Tully, NY 13159 (315) 696-8774.

USTFF NATIONAL MEN'S 10 Mile, Women's 3 Mile—August 3, 1975, Cudahy, Wisconsin. Free lodging. Also races for 30-39, 40-49, 50-59, 60+, girls & boys under 14, boys under 19, women over 30. For more information; Wulf Koehlert, N115W16517 Knight Dr., Germantown, WI 53022.

ROAD RUNNERS CLUB of America National Championship Age Group Postal Meet of Miles—7 & under, 8-9, 10-11, 12-13, 14-15, 40-49 and 50-59. Separate boys and girls. 23 sites in the U.S., England and Tehran. Results programmed on a computer. Any city can host a section May 1 to June 25, 1975. Contact Gabe Mirkin, 9900 Georgia Avenue, Silver Spring, MD 20902.

1975 NORTH DAKOTA Marathon & Half-Marathon — Grand Forks, ND, Saturday, June 28. AAU sanctioned. Course is flat prairie & paved. T-shirts to all entrants, awards to all finishers. Trophies 1st-15th overall, women, age groups 18-, 40+, 50+ & 60+. Contact Eric T. Parker, 1924 N. 4th, East Grand Forks, MN 56721.

NATIONAL AAU 25 KILOMETER Race—Saturday, July 5, 1975 at Buhl, Minnesota. Registration time for men's race and women's special: 8 a.m. Different prize categories and T-shirts for all finishers. Contact Race Director, Jim Randall, 2129 East 7th Ave., Hibbing, MN 55746.

NIKE, TIGER, BROOKS SHOES—Men's Brooks 4-13, Women's Brooks 4-10, Women's BC sizes. Nike 3-13. New women's training shoe & excellent men's. Information send self addressed stamped envelope: The Athlete's House, 1700 Portland Ave., Nashville, TN 37212.

GUARANTEED FOOD SUPPLEMENTS—50c per day nutritional program of protein and multivitamins with money-back guarantee. Other supplements. Send stamped envelope for information. Shaklee, 3813 Martin Drive, San Mateo, CA 94403.

LIVER PLUS C—by Neo-Life for endurance. 100 tablets (½-gram each), \$3.15, 425 tablets \$11.65. Postage paid. Protein in 5 flavors—send stamped envelope for free samples. Cynthia Kirk, 636 Palomar Drive, Redwood City, CA 94062, (415) 368-0554.

CARMEL CLASSIC T&F—June 21, 22, Carmel, Indiana. AAU, NCAA, USTFF. 69 championship events. Men & women, ages 12 through open. Master mile. All-weather track, Port-a-pits. Contact: Chuck Koeppen, 147 Park Lane, Carmel, Indiana 46032.

YOUTH DISTANCE RUNNING CAMP—California (Pennsylvania) State College Distance Running Camp for boys and girls, 10-high school, July 27-August 2. Age-group instruction and training in

all forms of distance running (X-C, road racing, track). This year's guest clinician: Ted Haydon, UCTC. Write: Marty Uher, Distance Running Camp, California State College, California, PA 15419.

BAKERSFIELD TRACK CLASSIC MARATHON—Saturday, May 17, 7 a.m. Fast, flat, two-lap course. Aid stations, trophies, medals, T-shirts, ticket to evening Track Classic. Also 13-mile mini. Contact Frank Fish, BTC Marathon, Chamber of Commerce, Box 1947, Bakersfield, CA 93303.

JOGGER'S TRAMPOLINE—Jog indoors home or office. Takes the shock out of jogging in place or with injury. Small, compact, will fit in automobile trunk. Write for prices and brochure. Tramp-Alana, Inc., P.O. Box 257, Norcross, GA 30071.

GOLD MEDAL CAMP—A cross-country / race walking training camp for girls and boys during August at Portersville (Butler County), Pennsylvania. Brochure from John Harwick, 467 Beverly Rd., Pittsburgh, PA 15216.

RACING NUMBERS — Bib style or single. Consecutive sets from 1 to 50, 1 to 100, etc. Plain numbers or your name imprinted. Reusable. Start/finish banners. Course markers. Scoreboards. Catalog. Reliable Racing Supply, 253 Bay Road, Glens Falls, NY 12801

FUNNEST RUN IN THE WEST! Pink Sand Dunes Race, June 14, Runner's Mecca, Utah. Contact Rich Heywood, P.O. Box 2186, Mesa, AZ 85204.

MARATHON TRIALS—Section 3, for Pan-American Games. June 11, Southern Utah State College. Section 3 includes inter-mountain states. Contact Bruce Osborn, Athletic Director, SUSC, Cedar City, Utah.

TEE SHIRTS CUSTOM PRINTED—Sweat shirts, jackets, jerseys. Schools, teams, clubs. Minimum 12: quantity discounts. Free catalog. Mandelker's RW 2603 N. Downer Avenue, Milwaukee, WI 53211.

KOCH BREWERY FARM FESTIVAL 10 km—August 16, Fredonia, New York. Flat, fast, safe course. Team trophies, 15 age groups, 100+ awards. T-shirts to first 150 entries. Ribbons to all finishers. Free clinic/movies. For info/entry stamped envelope to Carl Olson, 25 University Park, Fredonia, NY 14063.

THIRD SOUND-TO-NARROWS 7.5-mile road race. June 7, 1975. Men and women: Masters, open, high school, junior high, elementary divisions. More than 150 awards. Entries close May 23. Contact: Pierce County Parks, 955 Tacoma Ave. So., Rm. 210, Tacoma, WA 98402.

GREEN MOUNTAIN CROSS COUNTRY CAMP—Lyndon Institute, Lyndon Center, Vermont. Boys and girls, junior high and up. Two sessions: July 20-26, July 27-August 2. Staff includes: Roy Benson, head coach, Florida Track Club, Peter Squires, Manhattan College. Ideal training on pine needle paths and dirt roads in the coolness of the Green Mountains. Comfortable prep school housing, mountain lakes & streams. Write for free brochure: Peter Davis, GMCC Lyndon Institute, Lyndon Center, Vermont, 05850.

RUNNING—Journal of the Scientific Study of Distance Running. Articles on nutrition, physiology, medical problems, training, etc. For the layman as well as the professional. Fourth issue due May 31. Send \$4.00 for subscription to Volume One (four issues) to: Running, Box 267, Flagstaff, AZ 86001.

Advertising Rates

This is the runner's marketplace—an effective and economical way to advertise equipment, training aids, races, and personal notices. Over 25,000 avid runners read these classified ads—reach them next issue! Rates: race notices 20¢/word, \$5.00 minimum; general notices 30¢/word, \$10.00 minimum. All ads must be paid in advance.

Next available issue for advertising: July. Closing date is May 15, 1975. All ads must be paid in advance.

Diane Teshima
Advertising Manager
P.O. Box 366
Mt. View, CA 94040

MOUNDS KIWANIS ANNUAL 15 Km Championship Race—Traveling trophy and merchandise prize for first place, trophies for next ten. Special four mile event for high school age runners. Highland High School, Anderson, Indiana. June 14, 4:00 p.m. Contact A. Wayne Johnson, 119 Coventry Dr., Anderson, IN 46012.

LYDIARD RUNNING SHOE Distributorship — Manufacturing representative for North America. Authorized to negotiate fully. Will visit any serious investor in US or Canada. Please forward general proposal. For appointment contact L.F. Sullivan, Box 131, Princeton Junction, NJ 08550.

TIGER-NIKE — Corsair or Cortez \$21.95; Nairobi or Boston '73 \$16.95. Montreal '76 \$19.95. Jayhawk \$17.95. Add \$1.25 pr. postage plus 50 cents each additional pr. Sizes 6-12. Team prices on request. Write: James Morris, The Jog Shop, 1203 E. Warren, Brownfield, TX 79316.

INFLATION BUSTERS! — Nike, Tiger & Brooks—Nike and Tiger closeouts \$14.95-\$20.95. Brooks models \$16.50-\$17.95. Spikes \$17.95. For information, send self-addressed, stamped envelope to: Windy City Sports, 402 E. Virginia, Bensenville, IL 60106.

MID-MICHIGAN TRACK CLUB ANNUAL MEMORIAL DAY RUN —Holt (adjacent to Lansing) High School, Saturday, May 24 at 10 a.m. 5-mile and 10-mile road races. Age groups. Last year trophies to over half the field. will order same for '75. Showers/dressing available. Early entry \$2.00, day of race, \$3.00. Contact Gordon Schafer, 4378 W. Holt Rd., Holt, MI 48842.

CROSS-COUNTRY AT THE UNIVERSITY OF COLORADO — Mile high Boulder is your training ground with its mountain trails and excellent university facilities. Two one-week sessions, August 3-9, August 10-16. Special guests include Frank Shorter, Ken Swenson, and C.U. track coach Don Meyers. Limit of 40 per session. For information send self-addressed, stamped envelope to: Steve Flanagan, 1100 Pennsylvania Ave., Boulder, CO 80302. Please indicate age and experience.

HIGH ALTITUDE TRAINING—Rugged, mountain training for the gung-ho distance runner. YMCA Camp Crockett, Rye, Colorado. Reasonable rates, good food, rustic accommodations, top leadership. One or two week program. July 27-August 2, and August 3-9. For free information send self-addressed, stamped envelope to Don McMahlill, P.O. Box 214, Pueblo, CO 81002.

GUNPOWDER NECK 10-MILE—The 3rd annual race, start time 8:30 a.m., co-sponsored with Baltimore Road Runners Club will be held in conjunction with Youth Activities Carnival, Saturday, June 28, 1975, at Aberdeen Proving Ground (Edgewood Area). Maryland. Bring the family! Merchandise for all finishers. Trophies for top finishers in open, juniors, women's, veterans I and II categories. Write for entry blanks. \$2.00 entry fee to those received by June 20, 1975, \$3.00 after. Colonel Burt Dall, E1226 Everette Road, APG, Md 21010. (301) 671-2947. (office), 676-4948 (home). 1974 winner Sheldon Karlin, 52:00, Washington Sports Club.

BLUE RIDGE TRAILS "75" — The best distance training camp in the country—in the heart of the Blue Ridge mountains of NC. Outstanding staff of NCAA and club runners. Aug. 11-23, 1975, \$160. For info, write Blue Ridge Trails, Box 28544, Furman University, Greenville, SC 29613.

SUMMER SCHOOL NOTICE — Runner's Mecca High Altitude Training Center. Staff of certified instructors are runners & coaches. Curriculum: Preschool/Elementary, Secondary, College. Contact the following individuals for info on credit arrangements & course descriptions: Secondary: U.S. Government, John Freemuth, 146 E. 7th, Claremont, CA 91711. Gen. Science & Biology, Chuck Smead, c/o Runner's Mecca. Beg. & Int. Algebra, Bruce Grove, 1388 N. 5th Ave., Apt. 5, Upland, CA 91786, (714) 985-4651. Bicycling, Alan Marcossan, c/o Runner's Mecca. Driver's Ed. & Basic Math, Robert Swank, 911 Carbon, Apt. 3, Vincennes, IN 47591, (812) 886-5088. Health Education, Dave Patterson, c/o Runner's Mecca. Aerobic P.E., Ed Ford, c/o Runner's Mecca. College Credit: Shakespeare: Seminars & lectures held in conjunction with 3 dramas produced by Shakespeare festival in outdoor setting. Credit arrangement with S. Utah State College. Exercise Physiology, upper division. Authoritative guest lecturers as staff. Math & Physics. Contact Runner's Mecca for details. Advanced Training & Conditioning Methods, 5 quarter hours. Combination lecture/conditioning activities. Utah State U. instructor Richard Heywood. Video Tape Workshop: demonstration of recording running technique. Analysis of your running form with immediate playback. W. Keith Walker, 5242 James Ave., Oakland, CA 94618. Last 2 weeks of June. Credit arranged. For general information write: Runner's Mecca, Box 2186, Mesa, AZ 85204. (602) 834-0496.

RACING HIGHLIGHTS

NORTHEAST

● **New York, N.Y., Feb. 23**—Mike Hannon 20-mile: 1. Tom Fleming (23, NYAC) 1:46:29; 2. Bill Bragg (25, NYAC) 1:50:08; 3. James Boyle (24) 1:51:07; 4. Ernie Rivas (24) 1:52:06; 5. Sean Healy (28) 1:52:32... 8. Joe Burns (45) 1:59:06; 9. Paul Kajtanski (18, NYAC) 2:01:58... 45. Bob Muller (50, Prospect Park TC) 2:21:12... 78. Doria Stetch (12, L.I. Golden Spikes) 2:55:30. (86 finished, 8 under 2:00; from Joe Kleinerman).

● **Albany, N.Y., March 2**—Hudson-Mohawk marathon: 1. Don Wilken 2:43:12; 2. Allen Maddaus 2:52:20. (25 finished, 5 under 3:00, 21 under 3:30).

● **Amherst, Mass., March 2**—10-mile: 1. Will Rodgers (GBTC) 52:26; 2. John Dimick (GMAA) 52:46; 3. Tom Derderian (St. Mt. AC) 53:31; 4. Hamilton Amer (GBTC) 53:33; 5. Charlie Dugain 54:34; 6. Vin Fleming 54:47. (from Rick Bayko).

● **New York, N.Y., March 2**—Nat. RRC Postal 15-kilometer: 1. Art Hall (27, Oakwood TC) 48:15; 2. Justin Gubbins (22, NYAC) 48:15; 3. Tim Weaver (21, Fordham U) 48:17; 4. Jeff Kicia (20, CJTC) 48:29; 5. Hugh Sweeny (30) 49:11... 10. Joe Burns (45, Millrose AA) 52:12... 12. Ed Walsh (18, Fordham U) 52:25... 49. George Haller (50 NYAC) 59:57... 74. Irvin Taylor (60, CJTC) 1:03:35... 127. Mary Hoffman (20, CPTC) 1:10:40... 149. Eric Lynn (71) 1:30:40. (150 finished, 21 under 55:00, 49 under 1:00).

● **Rochester, N.Y., Mar. 8**—Rochester RR 14-mile: 1. Jim Boyle 1:18:44; 2. Dave Smith 1:20:03... 13. Bob LaBelle (40+, Finger Lakes RC) 1:40:21... 17. Mary Lynch (Syracuse Chrg.) 1:47:48. (20 finished, 6 under 1:30). 7-mile: 1. Mike Montemayor (LPTC) 44:07; 2. Chris Davis (Alden Lions) 46:40... 6. Bill Pow (40+, RRR) 52:26... 12. Delores Wheeler 59:42. (15 finished, 4 under 50:00). (from Dave Winn.)

● **Ithaca, N.Y., March 23**—Boston Qualifier marathon: 1. Jim Andrews (27) 2:33:30; 2. Ron Blackmore (21) 2:35:40; 3. Ron Redfield (23) 2:37:15... 7. Chuck Collins (41) 2:48:14. (46 finished; 37 under 3:30; from Jim Harthshorne).

● **Albany, N.Y. March 23**—Nat. AAU 30-kilometer: 1. John Vitale (Hartford TC) 1:31:50; 2. Bill Rodgers (Greater Boston TC) 1:32:03; 3. Tom Fleming (NYAC) 1:32:56; 4. John Dimick (Green Mt. AA) 1:33:55; 5. Bernard Allen (Washington SC) 1:35:23; 6. Stephen Mahieu (Washington SC) 1:35:47; 7. Phillip Stewart (Washington SC) 1:37:04; 8. Laurence Olsen (No. Medford C.) 1:37:25;

9. Justin Gubbins (NYAC) 1:37:50; 10. Bill Bragg (NYAC) 1:37:51; 11. Vin Fleming (Greater Bos. TC) 1:38:09; 12. Scott Graham (Greater Bos. TC) 1:38:15; 13. Larry Fredericks (NYAC) 1:38:17; 14. Marty Sudzina (W. Va. TC) 1:38:47; 15. Bruce Robinson (Washington SC) 1:39:25; 16. Kenneth Mueller (Bos. AA) 1:39:27; 17. Ralph Thomas 1:39:34; 18. Jim Shrader (Fla. TC) 1:40:15; 19. William Tylutk 1:41:37; 20. Martin Smith (Washington SC) 1:42:07... 41. Colin Beer (40+, Shore AC) 1:47:08... 113. Bill Tribou (50+, Hartford TC) 2:02:06... 162. Cathy Shrader (Electric City AC) 2:10:39. Teams: 1. Washington SC, 18 pts; 2. New York AC, 22 pts.; 3. Greater Bos. TC, 25 pts.; (275 finished, 53 under 1:50, 104 under 2:00; from Bill Shrader).

● **Brighton, Mass., March 24**—Brighton Mass. 9-mile: 1. Amby Burfoot 43:02; 2. R. Currier (BAA) 44:46; 3. D. Donaghe (Brandeis) 44:51; 4. B. Reinhold (Brandeis) 44:56; 5. Rick Bayko 45:49. (from Bob Campbell).

SOUTHEAST

● **Fort Walton Beach, Fla., Feb. 15**—Valentine Running Festival marathon: 1. Mike Clay (NWFTC) 2:49:31; 2. Steve Haug (NWFTC) 2:59:31... 8. Tracie Sigler (NWFTC) 3:46:15. (16 finished, 4 under 3:30, 11 under 4:00).

● **New Orleans, La., March 1**—15-kilometer: 1. Taylor Aultman 49:54; 2. Peter Soutullo 51:23; 3. Larry Fuselier (39) 52:27. (32 finished; from Cy Quinn).

● **Virginia Beach, Va., March 15**—Rotary Shamrock marathon: 1. Dan Dreschler 2:25:27; 2. Carl Hatfield 2:29:19; 3. Donald Dewitt 2:36:51; 4. Rex Wiggins 2:37:21; 5. Bill Hammack 2:40:27; 6. Charles Ross 2:40:35; 7. C. Allan (40+) 2:40:56... Elizabeth Sandoff 3:28:37. (121 finished; from John Krueger).

● **Knoxville, Tenn., March 16**—8-mile: 1. Heinz Wiegand (26, CTC) 40:58; 2. Marshall Adams (20, CTC) 43:30... 9. Sam Fowler (46, KTC) 54:56. (14 finished). 30 kilometer: 1. Tom Potter (Bryan Coll.) 1:50:25; 2. Doug Hawley (34, CTC) 1:54:03. (9 finished) (from Hal Canfield).

● **New Orleans, La., March 16**—4-mile: 1. Garry Bjorklund 19:11; 2. Taylor Aultman 20:20; 3. Larry Fuselier (39) 20:42. (78 finished; from Cy Quinn).

● **Atlanta, Ga., March 22** Atlanta TC One-Hour run: 1. Bob Varsha 11m 54.4y; 2. Randy Stroud 11m 66y... 13. Bill Neace (40+) 9m 134.4y... 16. Gayle Barron 9m 95.0y... 24. Elliott Galloway (50+) 8m 150.2y. (39 finished).

RACING HIGHLIGHTS

MIDWEST

● **Germantown, Ohio, Mar. 9**—Ohio River RR 7-mile: 1. Duane Gaston 37:07; 2. Dave Reid 39:15... 5. Tom Rapp (15) 40:16... 8. John Merola (43) 41:11. (23 finished, 4 under 40:00, 10 under 45:00; from Felix LeBlanc).

● **Sioux City, Ia., Mar. 15**—15-kilometer: 1. John Samore (Sioux Valley TC) 47:57. (15 finished).

● **Lake Johanna, Minn., Mar. 15**—Lake Johanna 4-mile: 1. Don Timm 19:14; 2. Steve Hoag 19:17... 12. Alren Sunn (40+) 21:52... 35. Jan Arenz 26:19. (47 finished; from Jeff Brain).

● **Toledo, Ohio, Mar. 16**—Heart Watcher's marathon: 1. Ed Steingraber (19, Coll. of St. Francis) 2:30:41; 2. David Yaege (21, Can.) 2:31:30; 3. Ron Flint (28, Univ. of Tor.) 2:39:16; 5. Svab Miro (35, Can.) 2:39:23... 18. Sid Shuttleworth (44, Can.) 2:54:13... 82. Marja Wright (27, Can.) 3:33:01. (123 finished, 22 under 3:00, 78 under 3:30, 97 under 4:00; from Sy Mah).

● **Madison, Wisc., Mar. 22**—Vilas Running Club 13.1-mile: 1. Tom Hoffman 1:09:37; 2. Thomas Antczak 1:10:2; 3. Greg Vidas 1:11:19; 4. Al Claremont 1:11:21; 5. Tom Slater 1:11:28... 51. Merle Knox (50+) 1:29:07... 66. Marty Czarapata 1:33:36. (104 finished; from Roland Lass).

● **Hopkins, Minn., March 22**—7-mile: 1. Steve Hoag 34:59; 2. Dave Cich 37:20; 3. Ron Daws 37:42... 10. Arlen Sunn (40+) 40:04. (57 finished; from Jeff Brain).

● **Hueston Woods, Ohio, Mar. 23**—Ohio River RR 12-mile: 1. Rick Callison 1:04:00; 2. Duane Gaston 1:06:35; 3. Joe Worden (19) 1:06:35... 13. Ray Larson (42) 1:15:39... 16. Elver Gaston (51) 1:18:37. (33 finished, 9 under 1:10; from Felix LeBlanc).

● **Toledo, Ohio, March**—Churchill 13.1-mile: 1. Paul Baldwin (24) 1:08:41; 2. Gerald Holt (23) 1:09:25; 3. Rich Lechowski (12) 1:12:03; 4. Jim Carter (26) 1:13:39; 5. Brian Bisson 1:13:53... Jim Edwards (40, Univ. of Toledo) 1:25:27... Lora Cartwright (13) 1:26:38... Henry Szymanski (51) 1:30:38. (102 finished; from Sy Mah).

● **Athens, Ohio, March 2**—Athens marathon: 1. Duane Spitz (Mid-Mich. TC) 2:27:04; 2. James Stanley (Summit AC) 2:29:35; 3. Peter Elliott (U. of Chic. TC) 2:33:32; 4. Roger Rouiller (W. Va. TC) 2:35:47; 5. Craig Harms (Lake Erie AA) 2:37:34... 22. Wendall Sullivan (50+) 3:00:39. (from Ellsworth Holden).

● **St. Louis, Mo., March 2**—Third Olympiad Mem. marathon: 1. Bob Busby (25) 2:21:00; 2. Bob Fitts (32) 2:25:13; 3. Rick Lower (22) 2:28:23; 4. Dennis Gyllenhaal (20) 2:28:29; 5. Heinz

Weigand (26) 2:30:12; 6. Paul Simon (28) 2:30:19; 7. Arthur Taylor (48) 2:31:12; 8. Rick Katz (26) 2:34:46; 9. Aris Antipas (22) 2:37:31; 10. James Samuelson (25) 2:37:56... 18. Mark Steinberg (19) 2:44:45... 61. Paul Schmitt (52) 3:11:11... 106. Carolyn Gibbard (36) 3:30:28... 107. Marilyn Good (40) 3:30:29. (142 finished, 52 under 3:00, 137 under 4:00; from Jerry Kokesh).

● **Rio Grande, Ohio, March 8**—10-mile: 1. Chuck Schoeppner (Rio Grande Coll.) 58:27; 2. John Climer (RGC) 59:28. (5 finished). 5-mile: 1. Bernard Tilley (Rio Grande Col.) 27:00; 2. Greg Baldwin (Rio Grande Col.) 27:54 (9 finished).

● **Carmel, Ind., March 9**—Windy marathon: 1. Jerry Pierce (27) 2:35:15; 2. Doug Osborn (21) 2:36:34; 3. George Branum (44) 2:53:10... 10. Joe Kenny (17) 3:01:27... 14. Lora Cartwright (13) 3:11:09... 27. Howard Henry (54) 3:26:50... 29. Hank Braddock (60) 3:47:21. (34 finished, 9 under 3:00, 27 under 3:30; from Chuck Koeppe).

SOUTHWEST

● **Dallas, Tex., Feb. 22**—White Rock marathon: 1. Terry Ziegler (24) 2:26:07; 2. Mike Albert (20) 2:28:19; 3. Hank Pfeifle (24) 2:33:28; 4. Clent Mericle (21) 2:33:28; 5. Simon McNamee (35) 2:33:39; 6. Mike Matheny (32) 2:33:44; 7. Dennis Manske (28) 2:33:47; 8. Brian Harrington (28) 2:35:15; 9. Jim Deer (28) 2:36:49; 10. Nolan Grayson (25) 2:37:18... 41. Bob Ramage (44) 2:56:37... 50. Kathy Loper (32) 3:00:45... 73. Dorothy Doolittle (28) 3:09:47... 89. John Fernandez (52) 3:14:10... 97. Don Logan (60) 3:15:46... 139. Lida Askew (48) 3:46:21... 142. Clyde Villemez (63) 3:48:26. (167 finished, 46 under 3:00, 123 under 3:30, 149 under 4:00).

● **Houston, Tex., Mar. 15**—Gulf AAU One-Hour Run: 1. Simon McNamee (35, Gulf Coast TC) 10m 1723y; 2. Wayne Comer (33, Cameron TC) 10m 1354y; 3. Ken Smith (22, ANRT) 10m 1298y; 4. Bob Reid (25, Terlingua TCA) 10m 1171y; 5. Phil Edelen (19, Tex. A&M) 10m 777y... 7. Don Slocumb (41, Terlingua TC Mas.) 10m 736y... 31. Carol Urish (23, Cameron TC) 8m 1595y... 36. Gene Askew (54, Amer. Nat. Mas.) 8m 1349y... 50. Clyde Villemez (63, Cameron TC) 8m 623y... 63. Lida Askew (48, Amer. Nat. Mas.) 7m 1364y. Teams: 1. Terlingua TC A; 2. Terlingua TC B. (57 finished, 13 over 10 miles; from Pete League).

● **Tulsa, Okla., Mar. 22**—Oil Capital marathon: 1. Terry Ziegler (24) 2:18:10; 2. Dennis Kasischke (28) 2:25:15; 3. George Mason (19) 2:29:25; 4. Joel

Cameron (18) 2:39:07... Tom Kempf (50) 2:58:52... 42. Bush Elkins (61) 3:35:59... 57. Lida Askew (48) 4:07:53. (62 finished, 35 under 3:30, 52 under 4:00; from Vern Whiteside).

● **Phoenix, Ariz., March**—Phoenix YMCA 13.1-mile: 1. Richard Sliney 1:04:56; 2. Denis Phillips (E. New Mexico) no time... 13. Joe Livesay (40+)... 32. Marjorie Kaput 1:25:10. (from Fred Moore).

WEST

● **Culver City, Cal., Feb. 16**—SPA-AAU 30-kilometer: 1. P. Frederiksson (USIU) 1:36:06; 2. Dave White 1:36:47; 3. Mark Kushner (22, GWAA) 1:38:10; 4. Sam Young (AZIL) 1:38:16; 5. Ronald Kurrie (26, BHS) 1:39:12; 6. Mike Chambliss (SBAA) 1:40:36; 7. Raymond Hughes (36, SCS) 1:40:52; 8. Jim Arquilla (24, AATC) 1:41:38; 9. Joe Carlson (AATC) 1:42:02; 10. Carl Swift (BHS) 1:42:32... 14. Pete Mundle (46, SMAA) 1:44:59... 75. Richard Davies (53, CCAC) 2:04:59... 78. Conna Sanchez (RRR) 2:07:15... 97. John Montoya (63, STC) 2:13:37. (136 finished, 56 under 2:00; from John Brennand).

● **Maui, Hawaii, March 1**—Norman K. Tamanaha marathon: 1. Duncan MacDonald 2:19:53; 2. Johnny Faerber 2:38:35; 3. Gordon Haller 2:38:45; 4. Jim Gallup 2:41:47; 5. Doug Kercey 2:46:51... 8. Gordon Dugan (41) 2:52:45... 12. Steve Jenness (16) 3:02:38... 14. Tom Ferguson (50) 3:04:49... 30. Sue Stricklin 3:40:49... 45. Walter Aoki (64) 6:30. (46 finished, 11 under 3:00; from Tom Ferguson).

● **Sacramento, Cal. Mar. 8**—Camellia 10-mile: 1. Bill McCray (25) 15:13:43; 2. Don Choi (26) 18:20:03. (15 started, 6 completed over 50 miles; from John Hill).

● **Lakeside, Cal., March 8**—PSA-AAU 30-kilometer: 1. Dennis Kasischke (28, SDTC) 1:39:47; 2. Wayne Akiyama (22) 1:46:10; 3. Kaj Johansen (30, SDTC) 1:46:22; 4. Ruben Diaz (US Navy/Snohomish TC) 1:51:39; 5. Ed Almeida (52, SDTC) 1:53:41 1:53:41... 43. Kathy Keller (26, SDTC) 2:28:18. (50 started; from Jim Waters).

● **San Jose, Cal., March 9**—San Jose Fitness 6-mile: 1. Jim Nuccio (25, WVTC) 28:44; 2. Bill Clark (31, WVTC) 29:39; 3. Jack Leydig (31, WVTC) 30:36; 4. Gilbert Uresti (19, WVTC) 30:45; 5. Jim Van Dine (21, FFF Bro.) 31:05; 6. Alex Aguilar (19, SJCC) 31:06; 7. Doug Butt (30, UNJ) 31:23; 8. Kent Guthrie (38, WVJ&S) 31:25; 9. Grover Prowell (22, SJS) 31:42; 10. Scott Carvey (21, FFF Bro.) 31:45... 14. Jim Shettler (41, WVJ&S) 32:08... 75. Sue Neary (17, Soquel RC) 38:10... 107. John Elliot (54,

WVJ&S) 40:18. (240 finished, 32 under 35:00; from Vic Crosetti).

● **Aptos, Calif., March 15**—Pacific AAU 30-kilometer: 1. Wayne Badgley 1:36:25; 2. Bill Clark (WVTC) 1:38:25; 3. Jan Sershen 1:40:19; 4. Fenton Carey (Navy) 1:41:20; 5. Jack Leydig (WVTC) 1:42:08... 7. Gil Uvesti (Jr.) 1:44:48... 9. Ed Dalley (40+) 1:48:56... 29. Peggy Lyman (WVTC) 2:03:56... 50. Ruth Anderson (40+, N.C. Sr.) 2:11:40. (80 finished, 22 under 2:00).

● **El Cajon, Calif., March 22**—12.8-mile: 1. Wayne Akiyama (22, un.) 1:10:36; 2. Chris Hughes (Jr.) 1:11:09; 3. Tom Bache (31, SDTC) 1:12:19; 4. Dennis Kasischke (28, SDTC) 1:13:15; 5. Roberto Aguilar (Tijuana, BC) 1:13:16... 12. Ed Almeida (52, SDTC) 1:18:54... 30. Nadia Garcia (21, SDTC) 1:25:23... 71. Nicki Hobson (44, SDTC) 1:32:45. (116 finished; from Russ Taylor).

● **Arcata, Calif., March 23**—50-mile: 1. George Crandell (12) 5:51:04.

● **San Martin, Cal., Mar. 23**—San Martin marathon: 1. Steve Dean 2:29:23; 2. Jan Day 2:35:23; 3. Bernd Heinrich 2:35:23; 4. Jake White 2:35:25; 5. Ed Dally (40+) 2:46:53... 40. Laurie Bangert 3:59:59. (44 finished, 31 under 3:30, 40 under 4:00; from Bill Flodberg).

INTERNATIONAL

● **Tehran, Iran, March 14**—Persian marathon: 1. John Butterfield (US) 2:45:45... 13. Pris Butterfield (US) 3:53:35. (19 finished).

● **Rabat, Morocco, Mar. 16**—International Cross-Country Champ: Men's 12-km: 1. Ian Stewart (Scot) 35:20; 2. Mariano Haro (Spain) 35:21; 3. Bill Rodgers (US) 35:27; 4. John Walker (N.Z.) 35:45; 5. Evan Robertson (N.Z.) 35:46; 6. Franco Fava (Italy) 35:47; 7. Ray Smedley (Eng.) 35:50; 8. Claus-Peter Hildenbrand (Ger.) 35:51; 9. Hans-Jürgen Orthman (Ger.) 35:55; 10. Gaston Roelants (Bel.) 35:57; 11. Wilfried Scholz (E. Ger.) 35:58; 12. Abdelkader Zaddam (Tunis) 36:00; 13. Luici Zarcome (Italy) 36:02; 14. Grenville Tuck (Eng.) 36:10; 15. Waldemar Ciepinski (E. Ger.) 36:16; 16. Emiel Puttmans (Bel.) 36:17; 17. Seppo Tuominen (Fin.) 36:19; 18. Jaddour Hadou (Morocco) 36:21; 19. Noel Tijou (Fr.) 36:24; 20. Frank Shorter (US) 36:25... 29. Scott Bringham (US)... 30. Gary Tuttle (US)... 69. Jeff Galloway (US)... 124. John Roscoe (US). Teams: 1. N. Zealand, 127 pts.; 2. England, 198 pts.; 3. Belgium, 211 pts.; 4. US, 249 pts.; 5. Germany, 273 pts. Women's 4000-meters: 1. Julie Brown (US)

JUNE COMING EVENTS

13:42; 2. Bronislaw Ludwischka (Poland) 13:47; 3. Karmen Valero (Spain) 13:48; 4. Gabriella Dorio (Italy) 13:51; 5. Lorraine Moller (N.Z.) 13:53; 6. Heather Thomson (N.Z.) 14:01; 7. Ann Yeoman (Eng.) 14:02; 8. Mary Stewart (Scot.) 14:03; 9. Margherita Cargano (Italy) 14:12; 10. Ann Garrett (N.A.) 14:15; 11. Kate Keyes (US) 14:18; 15. Peggy Neppel (US) 14:24 . . . 17. Doris Brown (US) 14:25 . . . 27. Cindy Poor (US) . . . 48. Linda Heinmiller (US). Teams: 1. US, 44 pts.; 2. New Zealand, 50 pts.; 3. Poland, 61 pts. Junior 7-kilometer: 1. Robert Thomas (US) 20:59; 2. Jose Gonzales (Spain) 21:18; 3. John Tracey (Ire.) 21:23; 4. Candido Alario (Spain) 21:29; 5. Don Clary (US) 21:28; 6. M. Longthorn (Eng.) 21:41; 7. Christian Foucquets (Bel.) 21:42; 8. Roy Kissin (US) 21:44; 9. Louis Kenny (Ire.) 21:45; 10. Gerard Finnegan (Ire.) 21:46 . . . 15. Ralph Serna (US) 22:00. Teams: 1. US, 29 pts.; 2. Ireland, 35 pts.; 3. Spain, 44 pts. (from Bob DeCelle).

CANADA

● **St. Damien, Quebec, Mar.** 2-10-mile: 1. Richard Chouinard (CAUL) 55:41; 2. John Brown (CRACS) 56:15 . . . 17. Maria Brzezinska (CRACS) 1:06:35. (60 finished; from Gabriel B. Duguay).

● **Montreal, Quebec, March 16**-Montreal International marathon: 1. Patrick Montuoro 2:39:07; 2. John Brown 2:41:57; 3. Teo McKeigan 2:42:47. . . 16. Maria Brzezinska 3:08:08 . . . 22. Michel Jobin (40+) 3:14:44. (48 finished; from Gabriel Duguay).

WALKS

● **San Jose, Cal., March 15**-5,000 meter walk, women's: 1. Ester Marquez (Rialto Road Runners) 25:08; 2. Susan Brodock (RRR) 25:29; 3. Diana Dimmick (S.J. Cindergals) 27:42. Girls 14-17: 1. Chris Sakelarios (Redwood Flyers) 26:07; 2. Linda Brodock (RRR) 26:16; 3. Sheila Thompson (RRR) 27:45.

TRACK RECORDS

● **70 meters (men)**-7.5, Heinz Busche, Ulrick Haupt and Manfred Ommer (W.G.) = WIR.

● **200 meters (women)**-23.6, Annegret Richter (W.G.) = WIR; 23.4, Rita Wilden (W.G.), new WIR.

● **220 yards (women)**-24.0, Rosalyn Bryant (US), and 23.8, new WIR and AIR.

● **50-yard hurdles (men)**-5.8, Danny Smith (Bahamas)=WIR.

● **50-yard hurdles (women)**-6.3, Annelie Ehrhardt (E.G.), and 6.2, new WIR.

● **50-yard hurdles (women)**-6.4, Patty Van Wolverlaere and Debby LaPlante, tying AIR. ●

NORTHEAST

- 1 East. Regional AAU 5-kilometer (10 a.m.; Road Runner's Club, P.O. Box 881, FDR Station, N.Y., N.Y. 10022).
- 7 RRC Postal Meet of Miles, Washington, D.C. (5 p.m.; 15 and under, 40 and over; Bob Ryerson, 12228 Shade-tree Lane, Laurel, Maryland 20811).
- 14 "God's Country" marathon, Coudersport, Pa. (Rt. 6, Potter-Tioga Line; Ralph Wentz, Potter County "God's Country" marathon, P.O. Box 117, Ulysses, Pa. 16948).
- 14-15 USTFF Nat. Masters Champ., Calif., Pa. (Calif. (Pa.) State College; John Harwick, 467 Beverly Rd., Pittsburgh, Pa. 15216).
- 14 Triple Cities RC 20-kilometer, Vestal, N.Y. (11 a.m.; Alan Jones, 3717 Wildwood Dr., Endwell, N.Y. 13760).
- 15 Nat. AAU Women's, Masters, and Junior 20-kilometer, Huntington, Long Island, N.Y. (11 a.m.; Road Runners Club, P.O. Box 881, FDR Station, New York, N.Y. 10022).
- 15 Nat. RRC Postal Mile, Mt. Lebanon, Pa. (Hollis McDaniels, 721 Vallevista Ave., Pittsburgh, Pa. 15234).
- 25-26 AAU Nat. Jr. Women's Champ., White Plains, N.Y. (born '56 or later).

SOUTHEAST

- 13-14 Nat. AAU Jr. Men's T & F Champ., Knoxville, Tenn. (Univ. of Tenn.; AAU House 3400 West 86th St., Indianapolis, Ind. 46268).
- 14 Dalton Festival 5-mile, Dalton, Ga. (6:30 p.m.; Doug Hawley, c/o *Daily Citizen News*, Box 1167, Dalton, Ga. 30720).

MIDWEST

- 7 Marathon-Marathon, Terre Haute, Indiana (Vigo County Fairgrounds; 7 a.m.; Pierre V. Burke, St. Mary-of-The-Woods College, St. Mary-of-The-Woods, Ind. 47876).
- 7 Inter. Prep. Invit.-UST F Nat. Jr. Champ., Mt. Prospect, Ill. (Prospect High School; Joe Newton, Head Track Coach, York High School, Elmhurst, Ill. 60126).
- 7 Missouri Valley AAU & Open One-hour run, Columbia, Mo. (7:30 p.m.; Joe Duncan, 4004 Defoe Dr., Columbia, Mo. 65201).
- 8 SAUK Valley 10,000-meters, Brooklyn, Mich. (Phil Gross, Sauk Valley Farms, Brooklyn, Mich. 49230).

- 13 Delta Chicken Run 10-kilometer & 3-mile, Delta, Ohio (7 p.m.; David R. Mason, 417 Fernwood St., Delta, Ohio 43515).

- 14 Jackrabbit 15.2-mile, White to Brookings, S.D. (5:30 a.m.; Jay Dirksen, SDSU Track Coach, SDSU, Brookings, S.D. 57006).

- 14 LEAAU One-Hour run, Akron, Ohio (Akron Univ.; 6:30 p.m.; J. O'Neil, 5916 Longano Dr., Independence, Ohio 44131).

- 14 Mounds Kiwanis 15-kilometer, Anderson, Ind. (Highland High School; 4 p.m.; Wayne Johnson, 119 Coventry Dr., Anderson, Ind. 46012).

- 15 Glass City marathon, Toledo, Ohio (Univ. of Toledo, 8 a.m.; Jim Edwards, 3809 Maxwell Rd., Toledo, Ohio 43613).

- 21 NJCAA marathon, Dowagiac, Mich. (8 a.m.; Ronald Gunn, Athletic Director, Southwestern Mich. Coll., Dowagiac, Mich. 49047).

- 21-23 Carmel Classics T & F, Carmel, Ind. (Chuck Koeppen, 147 Park Lane, Carmel, Ind. 46032).

- 21 Minn. AAU 30-kilometer, Rochester, Minn. (Al Gilman, 19 12th St. N.E., Rochester, Minn. 55901).

- 28 Madison marathon, Madison, Wisc. (7 a.m.; Dale Roe, 1104 Moorland, R.D. No. 3, Madison, Wisc. 53713).

- 28 North Dakota marathon & half-marathon, Grand Forks, N.D. (8 a.m.; Eric T. Parker, 1924 N. 4th, E. Grand Forks, N.D. 56721).

- 28 South Dakota AAU One-hour run, Brookings, S.D. (Sexauer Field; 7 p.m.; Jay Dirksen, SDSU Track Coach, SDSU, Brookings, S.D. 57006).

- 29 Freedom marathon, Monticello, Ill. (Allerton Park; 6 a.m.; Illinois Track Club, Box 2976, Station A, Champaign, Ill. 61820).

- 29 Akron 10- and 20-kilometer run, Akron, Ohio (Henry De Wyk, 80 W. Center St., Akron, Ohio 44308).

- ? Mackinaw Trails marathon, Saginaw, Mich. (Ray Anderson, 5456 Adrian St., Saginaw, Mich. 48603).

SOUTHWEST

- 7 RRC National Postal One-mile, Houston, Tex. (Rice Univ. Track; 9 a.m.; Fred Johnson, 200 Houston Nat. Gas Bldg., Houston, Tex. 77002).

WEST

- 1 Senior Olympics marathon, Irvine, Cal. (7 a.m.; Sr. Olympics, 5225 Wilshire

- Blvd., No. 302, Los Angeles, Cal. 90036).

- 7 PA-AAU One-Hour Champ. (place to be announced; 10 a.m.; Frank Donahue, 4903-B Mission St., San Francisco, Calif. 94112).

- 7 Sound-to-Narrows 7.5-mile, Tacoma, Wash. (Pierce Co. Parks, 955 Tacoma Ave. So., Room 210, Tacoma, Wash. 98402).

- 11 King Kamenahema 4.2-mile, Honolulu, Hawaii (T.J. Ferguson, 4191 Halupa St., Honolulu, Hawaii 96818).

- 14 Midnight Sun marathon, Fairbanks, Alas. (7 p.m.; LTC Paul D. Vanture, Army ROTC, Box 95552, Univ. of Alaska, Fairbanks, Alaska 99701).

- 14 Palos Verdes marathon, Palos Verdes Estates, Cal. (8 a.m.; Terry Wallace, P.O. Box 153, Palos Verdes Estates, Cal. 90274).

- 14 Ore. AAU One-Hour run, Portland, Ore. (Duniway Park, 7 p.m.; Clint Eckstein, c/o Ore. AAU, 7079 S.W. Montgomery Way, Wilsonville, Ore. 97070).

- 20-21 Nat. AAU Senior Outdoor Champ., Eugene, Ore.
- 25 PSA AAU One-Hour run, San Diego, Cal. (Balboa Stadium; 5:45 & 7:00 p.m.; Bill Gookin, 5946 Wenrich, San Diego, Cal. 92120).

- 28-29 Senior Olympics T & F, Irvine, Cal. (Univ. of Cal/ Irvine; Sr. Olympics, 5225 Wilshire Blvd., No. 302, Los Angeles, Calif. 90036).

- 28 Ore. AAU 20-kilometer, Portland, Ore. (Western Forestry Center; 9:30 a.m.; Dave Hult, c/o Ore. AAU, 7079 S.W. Montgomery Way, Wilsonville, Ore. 97070).

- ? Juneau Marathon, Juneau, Alaska (Jim Dumont, Recreation Dir., Juneau, Alaska 99801).

- ? Mayor's marathon, Anchorage, Alaska (Bob Layman, 322 Muldoon Rd., Anchorage, Alaska 99504).

CANADA

- 1 or 7 Alberta marathon Champ., Calgary, Alberta (9 a.m.; open; Bill Herriot, 1405-5th St., N.W., Calgary, Alberta T2M 3C1).

- 24 Grand-Mere 10-mile, Shawinigan, Quebec (2 p.m.; Fernand Dube, C.P. 580, 390 3rd Ave., Shawinigan SUD, Quebec).

- 29 St. Hyacinthe marathon, St. Hyacinthe, Quebec (4:30 p.m.; Gerard Cote, Le Courrier, C.P. No. 340, St. Hyacinthe, Quebec).

- 29 Val D'Or 10-mile, Val D'Or, Quebec (6 p.m.; Jean Poirier, Polyvalente, Le Carrefour, Val D'Or, Quebec. ●

Looking AT PEOPLE



Jim Bush (John Marconi)

● **Jim Bush**, the country's most successful college track coach, doesn't think highly of jogging. The man from UCLA recently told *Los Angeles Times* reporter **Bob Oates**, "I hate the word 'jog'. It's a word we ought to get rid of. When I hear it, I immediately think of a guy plodding along, pounding the ground and jarring the whole body with every step. Joggers jar their spine, their knees, their hips, their ankle joints, everything."

Bush reasons that there's less jar in shorter, faster runs—hence, less chance of injury. "When you move faster," he said, "it's easier on your body because you're brushing your weight over the feet—distributing it quickly over various portions of a foot."

The UCLA coach advises a number of fitness runners, including actress **Elke Sommer**. He believes that one mile is the optimum workout distance.

"That's enough," he said. "It's enough to give the cardiovascular system a good workout—and also the respiratory system. But don't start out running a mile. Experiment. Run until you're tired, then stop and walk for awhile, staying at it till you get in a full mile each time. The greatest thing for a man's—or woman's—physical fitness is to run a mile at least three times a week, five times if you can handle it."

● **Dr. Kaj Johansen** "had his foot run over by a slow-moving police car" during the Trails's End marathon, **Janet Heinonen** reported last month ("First Class Race at Trail's End"). Kaj elaborates:

"It was to be my big effort. I'd run 580 miles in the four weeks prior to the race, then had flown from San Diego to Seaside. At 13 miles, I was hit by a sheriff's car (going 25 miles per hour), the primary damage being that he drove over my foot. Fortunately, there were no frac-

tures, only a crush injury and some nerve damage which will recover. A long ways to go for that sort of experience."

● **Bob Anderson** mentioned in February ("From the Publisher") that the magazine's Fun-Runs had gone on uninterrupted for more than 100 Sundays. The Springfield and Collingdale Joggers Clubs from Pennsylvania can top that, even without the benefit of California's weather.

Byron Mundy writes, "Our Springfield club has met over 350 times since February 1972. The Collingdale club has held over 150 sessions. In 1974, the two groups had a total of 247 runs and a total attendance of 7984. Over 1000 different individuals have participated—95% of them living within five miles of where we run."

The distance is always two miles. All awards are based on frequency of participation.

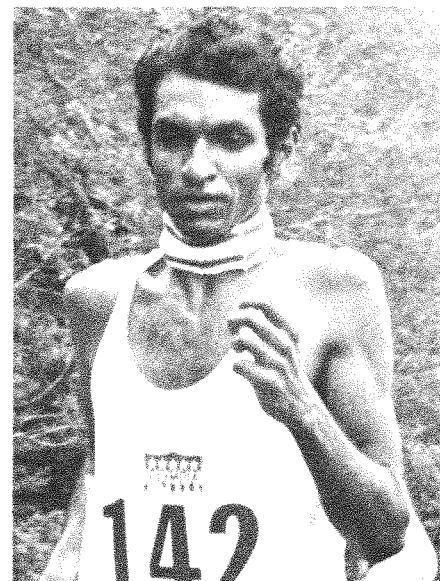


Ken Twigg

● In 1953 **Ken Twigg** was the first Canadian finisher in the Boston marathon. More recently, he organized two international invitational marathons in Toronto. And for the past several years, he has put together perhaps the classiest indoor track meet in the world—the Star Maple Leaf Games.

Now Twigg is in charge of all track and field in his country—having been named in March as executive director of the Canadian Track and Field Association.

Canada's neighbor to the south could take pointers from the CTFA—an autonomous body with a professional coaching staff. Olympic long jump champion **Lynn Davies** is the technical director, **Gerald Mach** handles the sprints and **Paul Poce** the distances.



Lucian Rosa (Jay McNally)

● **Dennis McBride** wrote about **Lucian Rosa**, a 2:15 marathoner, last December ("Pitter-Patter of Little Feet").

"In January," McBride says, "I saw Lucian for the first time since the article came out. Before the meet, Lucian thanked me for writing the article and said he enjoyed it. Knowing him, he would have said that even if he hated it. But I decided to believe him. He's got an honest face.

"I watched Lucian dismantle his mile competition. Afterwards, he appeared before me with his hand out. 'I want you to have this,' he said, pressing his mile medal into my hand. Just have it engraved From Lucian if you want."

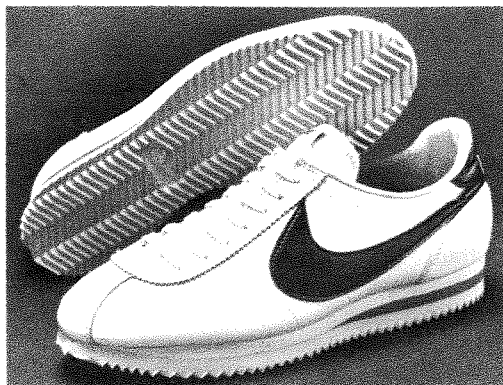
"It wasn't a big meet, nor was it an impressive medal. Besides, he's got a closetful at home. But that wasn't the point. He didn't have to do it."

● The Marathon marathon not only has an impressive lineup of runners, but many of them are also speaking at the clinic which accompanies the June 7 race in Terre Haute, Ind. Scheduled to talk are **Ron Wayne**, **Nina Kuscsik**, **Kathrine Switzer** and **Dr. Norbert Sander**.

● Quoting **Tom Fleming** (from the *March Track & Field News*): "I have experienced a strange phenomenon after marathons, especially the kind that really give your body a workout. I don't have to shave for four days or more. I mean zerosville. I theorize I've used up all my body proteins, and body hair needs protein to grow. I use this as an indicator whether or not I have really run to the end of my reserves." ●

CORTEZ SECONDS *

LEATHER CORTEZ --- SOFT WHITE LEATHER UPPERS, SPENCO INNERSOLES, THICK OUTER SOLE AND FULL LENGTH CUSHIONED MID-SOLE FOR PROTECTION. \$19.95 FIVE OR MORE \$17.95.



\$19.95

\$19.95

\$17.95



SUEDE CORTEZ--SOFT NAVY UPPERS MOLD TO YOUR FEET. \$19.95 FIVE OR MORE \$17.95.



NYLON CORTEZ--LIGHTWEIGHT BLUE NYLON UPPER NEEDS NO BREAK IN TIME, WATER WILL NEVER HURT IT. \$17.95.

* These shoes contain production-caused imperfections which render their cosmetic quality below that of firstline Nikes. These imperfections will not affect the life and performance of the product, therefore, we are able to offer you fully guaranteed shoes at greatly reduced prices.



Send your order to:

the athletic department

P. O. BOX 743

503/ 643 - 4732

BEAVERTON, OREGON 97005

No Collect calls please.

(Please add \$1.50 shipping charge for first pair and \$.75 for each additional pair. Quantity limited; please state second choice. Out of stock orders promptly refunded.) Free NIKE brochures available upon request. Air Shipment, add \$1.00. Outside U.S.A., use Money Order ONLY and add \$1.00 extra charge for shipping.)

READERS' COMMENTS

PHILLIPS SHOES

During the past several months, I have been running with aching achilles tendons, and recently a severe knee pain developed which made running impossible.

Some time ago, Ed Phillips ("In Search of the Perfect Shoe," Feb. 75) offered to make me a pair of shoes, and after my recent injury I decided to take him up on it. It turned out to be a wise move.

Starting with plaster of paris casts of my feet, Ed designed and built me a pair of orthotic shoes. The insides are completely form-fitting, and the outer soles are the new negative-heel design which Ed has developed. I must admit that I was apprehensive at first, but the results have been startling.

The very first day I wore them, I ran four miles on grass with no pain in my knee and not much stress on my achilles tendons. For the past month, I have gradually increased my distance and

pace with no further pain. I am 100% convinced that this new shoe has enabled me to resume training.

I predict that many runners in the future will join me in thanking Ed Phillips.

*James O'Neill
Sacramento, Calif.*

THE ARMORY

Marc Bloom's article in February issue ("The New York Winter") was great. To one who has made the full cycle at the old 168th Street Armory—from high school and collegiate competitor to coach and official and now back to competitor at the Masters level—it really brought back memories.

In a long career, I've seen some strange things happen there, but none more bizarre than what happened in a high school mile relay several years ago. The number three runner on one team dropped the baton in the middle of his run and it rolled off the track. He kept right on running. As he approached the exchange zone minus the baton, he suddenly peeled off his shirt in full stride and handed it off to his teammate. Talk about giving the shirt off your back!

*Richard Lacey
New York, N.Y.*

LIVER TABLETS

I have a question for Terry Howell on his article "Endurance in Capsule Form" (March 75). Where does he buy 7 ½-gram tablets of desiccated liver for four cents each?

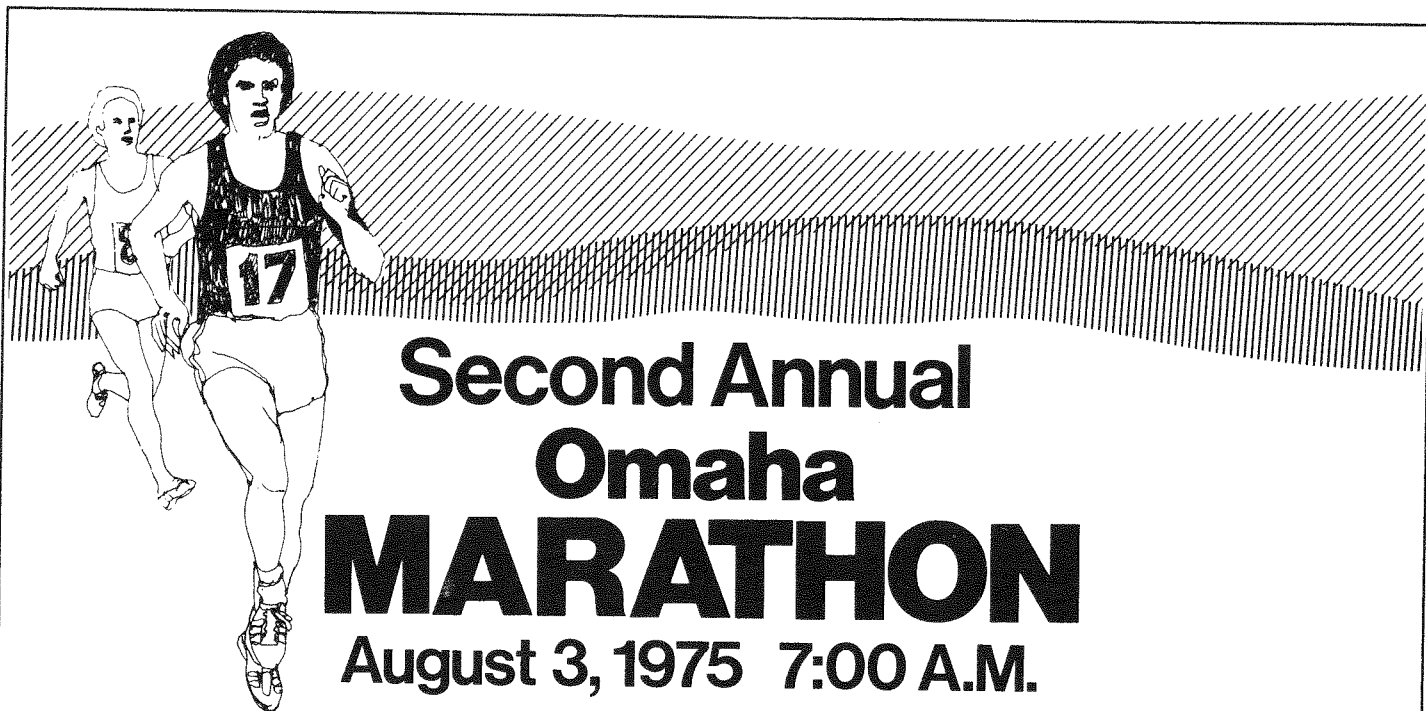
The best my local health foods store can do is 100 capsules of 500 milligrams at a cost of three cents each. At this price 7½-gram dose would cost 45 cents. The cost is just too high.

*Robert Schlorff
Waterloo, Iowa*

(A typographical error changed Howell's dosage from grains to grams. Seven and a half grains is the equivalent of 500 milligrams. Tablets of desiccated liver typically come in this size, and sell for pennies apiece.)

Regarding Terry Howell's article on desiccated liver, I suggest a test more appropriate to runners than drowning rats. Let's take three groups of runners to Death Valley. All runners must be between the ages of 18 and 30, and train a maximum of 50 miles a week.

The three groups will be fed as much as they want of a basic diet for 12 weeks. Each group will eat the same foods, with only the supplements differing. The first group will be fed nine synthetic and



Second Annual Omaha MARATHON

August 3, 1975 7:00 A.M.

26 MILES 385 YARDS ALONG OMAHA'S RIVERFRONT

Entry fee \$3.00 Entries close July 21, 1975

Awards for everyone (1st prize round trip flight to Boston Marathon)
AAU certification pending

For entry blanks and further information send self-addressed, stamped envelope to:

Bob Lozeau
"OMAHA MARATHON"
1620 Dodge Omaha, Ne. 68102

two natural vitamins. The second group will eat the same diet and vitamins, plus a plentiful supply of B-vitamins in the form of brewer's yeast. The third group will have 10% desiccated liver added to its ration in place of the B vitamins (while retaining the other vitamins).

At the end of this 12-week period, the runners will begin a 100-mile out-and-back course across Death Valley. Helicopters will monitor the progress of the runners. If what holds for rats is applicable to runners, the third group should complete the run. Those who collapse will be dropped a survival kit including a ration of powdered ERG, *Thoughts on the Run*, *The Complete Walker* and the phone numbers of running contacts in Las Vegas.

Bruce Jones
Point Richmond, Calif.

SELF-PROCLAIMED

"Neither Ice Nor Snow Nor..." by Hal Higdon (Feb. 75) named me as the self-proclaimed fastest 200-pounder. Hal, I'm so modest at 45. Even in my fantasies, the best thing I can do is take a third place.

There are certain advantages to not being the world's best or even self-proclaimed best. I get to run in the middle of the pack and meet runners on the way up...and also on the way down. I think that's why I know so many runners.

Pax Beale
San Francisco, Calif.

THE DIFFERENCE

Where a jog ends and a run begins has been the subject of questionnaires and articles. But my opinion is that Dr. Daniel Brunner (in the book *Freedom*

from *Heart Attacks*, Simon and Schuster, 1972) has just about the last word:

"I think the difference between jogging and running is like the difference between artificial insemination and a love affair."

Bruce Burnside
Rockville, Md.

BOSTON'S SIZE

With few exceptions, Marshall Childs' ideas ("Timing the Multitudes," March 75) are sound enough on paper—but both difficult and expensive to implement in view of facilities and personnel available, the metropolitan area and the physical proportions of the streets.

There is not one idea in the story that we have not considered in previous years. We hope to implement some of them. For example, we're working on computerization (but getting the right time with the right finishing place is easier said than done).

Will Cloney
Director, Boston Marathon
Boston, Mass.

This sure is a well-written piece of wishful thinking. (Childs) must be a blend of Jules Verne, Hans Anderson, Grimm and those other writers of fairy tales. It is absolutely impossible to even try and do some of his idealistic dreams.

In the first place, where can all this help come from? At the wages paid to hired help today, the cost of office space, etc., etc., it is absolutely ridiculous to talk like he does. Our "office" is my clinic and my home. The phone is the Boston Garden switchboard, and I'm sure the operator must be bored with some of the calls I get.

Oh, there is no use going into my usual tirade. I appreciate the nice things he says of Cloney and me. Here and now, I'll make him an offer if he wants to come up here and take over, take all the bows and get all the plaudits. And I'll pay him 10 times the salary I and the others get. In a few weeks, he will be on welfare.

Jock Semple
Lynn, Mass.

SUPER-RACER

I am writing about the article in January's issue on a super-racer, Craig Harms ("News and Views"). Running five marathons during one month is insane. "Why" is the biggest question. Why doesn't he spread them out? That way, he would have a better chance of breaking 2:30. He had to drop out of one marathon in that month's period. Why even start a race if you cannot finish?

I do agree the best way to get a

speed workout is to race, but not as often as Craig does. He should give his body a rest or rebuilding stage. He claims one rebuilds stronger after tearing down. But the only reason he did well in his 10-mile race after those marathons is because he cut his mileage in half. He then had plenty of rest to rebuild.

Looking at my own times (two 2:31s at 18 years old), I think this is a greater achievement than one running 60 marathons and finally getting down to this time.

Ed Steingraber
Joliet, Ill. ●

Year-round, every weekend, the members of our staff run with each other and anyone else who wants to come along. Saturdays—a long, "social" run, about 15 miles in two hours; Foothill College, Los Altos Hills, Calif., 8 a.m. Sundays—Fun-Runs, informal competition at distances one-fourth-mile to 8½ miles; no entry fees, no signups, everyone is timed; Foothill College, 10:30 a.m. The June Fun-Runs: 1st—440, 2-mile; 8th—880, mile, 5-mile; 15th—880, mile, 8½-mile; 22nd—440, 880, 6-mile; 29th—440, mile, 3-mile.

CHANGE OF ADDRESS & ORDER FORM

If you're moving, please let us know three weeks before changing your address. And please mention all the publications of ours you subscribe to.

(Check one) Please change my address. Please enter my subscription to the following publications:

- Runner's World (\$7.00/year)
 Runner's Monthly Booklet (\$12)
 Bike World (\$7.00/year)

You must include OLD address too!

NAME _____

ADDRESS _____

CITY _____

STATE _____ ZIP _____

RW, Box 366, Mt. View, Ca. 94040

NEW TRACK TIMERS

Complete Selection
 MINERVA • LEMANIA • HEUER
 HANHART • GALLET • JUNGHANS



We have them all...
For immediate delivery

LIGHT WEIGHT FIBERGLASS CASE WRIST TIMER
7 jewels
60 Sec. sweep.
60 Min. center reg.
Easy to read dial

SPECIAL \$47.50

IN CALIF. ADD TAX
LEMANIA 501.218

Write for FREE Catalog showing our complete line of stopwatches.

WE SPECIALIZE IN STOPWATCH REPAIRS

FELDMAR WATCH CO., INC.

9000 W. Pico Blvd., Dept. RW
Los Angeles, Calif. 90035, (213) 272-1196

EARTH® negative heel shoes are sold only at Earth® shoe stores in these cities.

For the address consult your phone directory.

- Arizona Tucson
- California Berkeley
Carmel
Fresno*
Hermosa Beach
Laguna Beach
Palm Springs*
Palo Alto
San Diego*
San Francisco
Santa Ana
Santa Barbara
Westwood
- Colorado Boulder
- Connecticut Hartford
New Haven
- District of Columbia Washington, D.C.
- Florida Gainesville
North Miami Beach
South Miami
- Georgia Atlanta
- Illinois Chicago
- Indiana Bloomington
Indianapolis*
- Kentucky Louisville*
- Louisiana New Orleans
- Massachusetts Amherst
Cambridge
- Michigan Ann Arbor
Birmingham
- Minnesota Minneapolis
- Missouri Kansas City
- Nevada Las Vegas*
- New Jersey Princeton
- New York New York
Buffalo
Garden City
Huntington
Rochester*
Southampton
- North Carolina Chapel Hill
Charlotte
- Ohio Cleveland Heights
Columbus
Dayton*
Toledo*
- Oklahoma Oklahoma City*
- Oregon Eugene*
Portland*
- Pennsylvania Allentown
Philadelphia
Pittsburgh
State College*
- Rhode Island Providence*
- Tennessee Knoxville
Memphis
- Texas Austin
Dallas
- Utah Salt Lake City
- Vermont Burlington
- Virginia Richmond*
- Washington Seattle
Spokane*
- Wisconsin Madison

CANADA

- Quebec Montreal
- Ontario Toronto

EUROPE

- Denmark Copenhagen
- Germany Munich

If there is no store in your area, write to Earth shoe, Dept. ZY, 251 Park Avenue South, New York, New York 10010 and we will send you a brochure that explains how to order the Earth® brand shoe by mail.

***Opening soon.**



THE COMPLETE RUNNER

"It takes a long time to get to be a good runner . . . many weeks and months and years of constant experimenting with training methods, techniques, and all that. Most runners hate like hell to see any of that time wasted."

The Complete Runner is a gold mine of information about getting the most for that time you spend. It's written by people who've spent a lifetime learning—George Sheehan, Ernst van Aaken, Brooks Johnson, Kathrine Switzer, Joe Henderson, Tom Osler, Gabe Mirkin, Hal Higdon . . .

Their ideas will help you run faster, farther. Here are just a few of the questions The Complete Runner answers:

- How can I cure shin splints?
- How do you carbo-load? Is it dangerous?
- What and how much should you drink during a race?
- How much training should be for endurance, and how much for speed?

The Complete Runner has something on almost every aspect of running. In fact, it probably says something about that problem *you've* been worrying about!

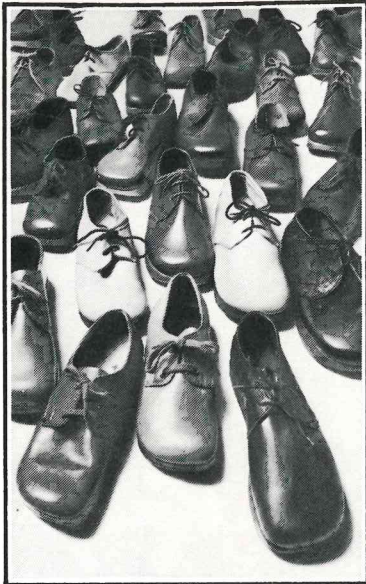


WORLD PUBLICATIONS
Box 366, Mountain View CA 94040

Please send me _____ copies of **The Complete Runner**. Enclosed is \$10.95 per copy, plus 25c postage and handling. California residents add 6% sales tax.

Name _____
Address _____
City/State/Zip _____

Why everybody's pretending they're us.



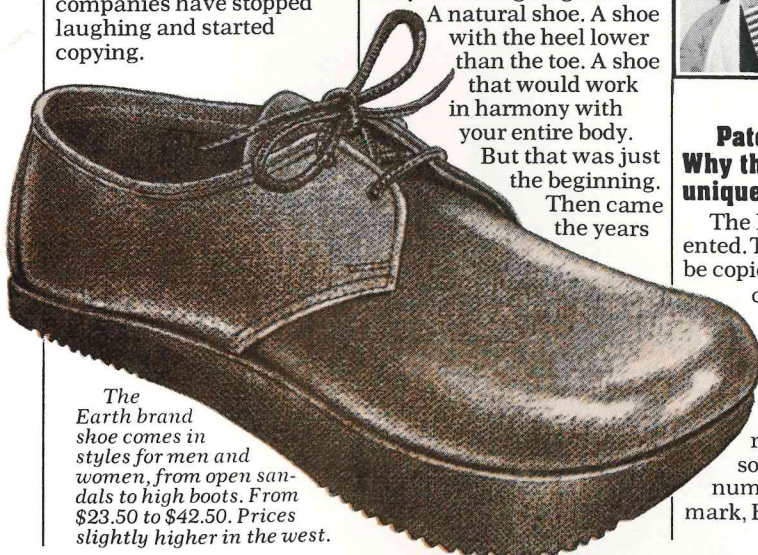
These are not Earth shoes. Just because they look like Earth shoes doesn't mean they are Earth brand shoes.

There was a time when the EARTH* negative heel shoe was the only shoe in the world with the heel lower than the toe.

In those days the other people who made shoes just laughed at us.

But things have changed.

And now that you love our Earth brand shoes, now that you're standing in line to get them, the shoe companies have stopped laughing and started copying.



The Earth brand shoe comes in styles for men and women, from open sandals to high boots. From \$23.50 to \$42.50. Prices slightly higher in the west.

The shoes that look like, seem like, but don't work like the Earth shoe.

Today, a lot of people are trying to imitate our shoe. Some even use names that sound like ours, and have ads that look like ours!

It seems like everybody's trying to be us.

But what they don't understand is this. Merely lowering the heel of a shoe isn't enough. And imitating the outside of our shoe isn't enough. Just because a shoe looks like the Earth shoe doesn't mean it works like the Earth shoe.

It took many years to perfect the Earth brand shoe. And those years are crucial. They make our shoe different from all its imitators.

How the Earth Shoe was invented.

It started years ago when Anne Kalsø had the original idea for the negative heel shoe.

She saw footprints in the sand, and realized that with every footprint the body was designing a shoe.

A natural shoe. A shoe with the heel lower than the toe. A shoe that would work in harmony with your entire body.

But that was just the beginning. Then came the years



To get an idea of how the Earth shoe works, stand barefoot with your toes up on a book. Feel what begins to happen.

of research and hard work to get every detail just right. To perfect the arch. To make the toes wide, comfortable and functional. To balance the shoe. To mold the sole in a special way so that it would allow you to walk in a natural rolling motion. Gently and easily even on the hard jarring cement of our cities.



Patent # 3305947. Why the Earth shoe is unique.

The Earth shoe is patented. That means it can't be copied without being changed.

And if it's changed it just isn't the Earth shoe.

So to be sure you're getting the real thing, look on the sole for our patent number and our trademark, Earth. If they're not

there, it's not the Earth brand shoe.

Sold only at Earth shoe stores.

And there's one more thing that makes our shoes so special. Our stores.

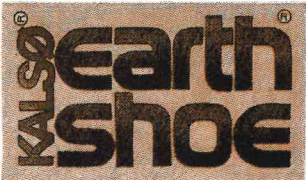
Earth shoes are sold only at Earth shoe stores. Stores that sell no other shoe but ours, and are devoted entirely to the Earth shoe concept.

How our shoes fit you is very important to us. There's a special technique to fitting them. Our people are trained to fit you properly and we wouldn't trust anyone else to do it.

Find out for yourself.

To really appreciate Earth shoes you must try them.

When you do you'll see, perhaps for the first time in your life, what it's like to walk more gracefully, naturally and comfortably.



**EARTH is the registered trademark of Kalsø Systemet, Inc. for its negative heel shoes and other products. ©1975. Kalsø Systemet, Inc.*



Anne Kalsø.
Inventor of the EARTH negative heel shoe.

You can only buy Earth shoes at Earth Shoe Stores in the cities listed on the facing page. Gift Certificates Available.



Feeling Pressured?

Society puts the pressure on in many ways these days. More and more, people are looking for ways of judging for themselves, instead of letting Madison Avenue push them around.

Food for Fitness, published by World Publications, takes a close look at the standard American meat-and-potatoes diet. In it, you will find other ways of eating that will give you better health and better performances—no matter what your sport is.

Its seven big chapters talk about the specifics of the problem—protein, vitamin and mineral requirements (with some surprising new facts!), food preservatives, how much you should weigh and how you can reach that weight, carbohydrate loading, what to eat before and during a race, fasting, vegetarianism, and how to change your eating habits.

Food for Fitness is by far the best, most practical, and most up-to-date book on the subject of athletic nutrition. 1975 paperback, 144 pages, illustrated, \$2.95.

World Publications
Post Office Box 366
Mountain View, Calif. 94040