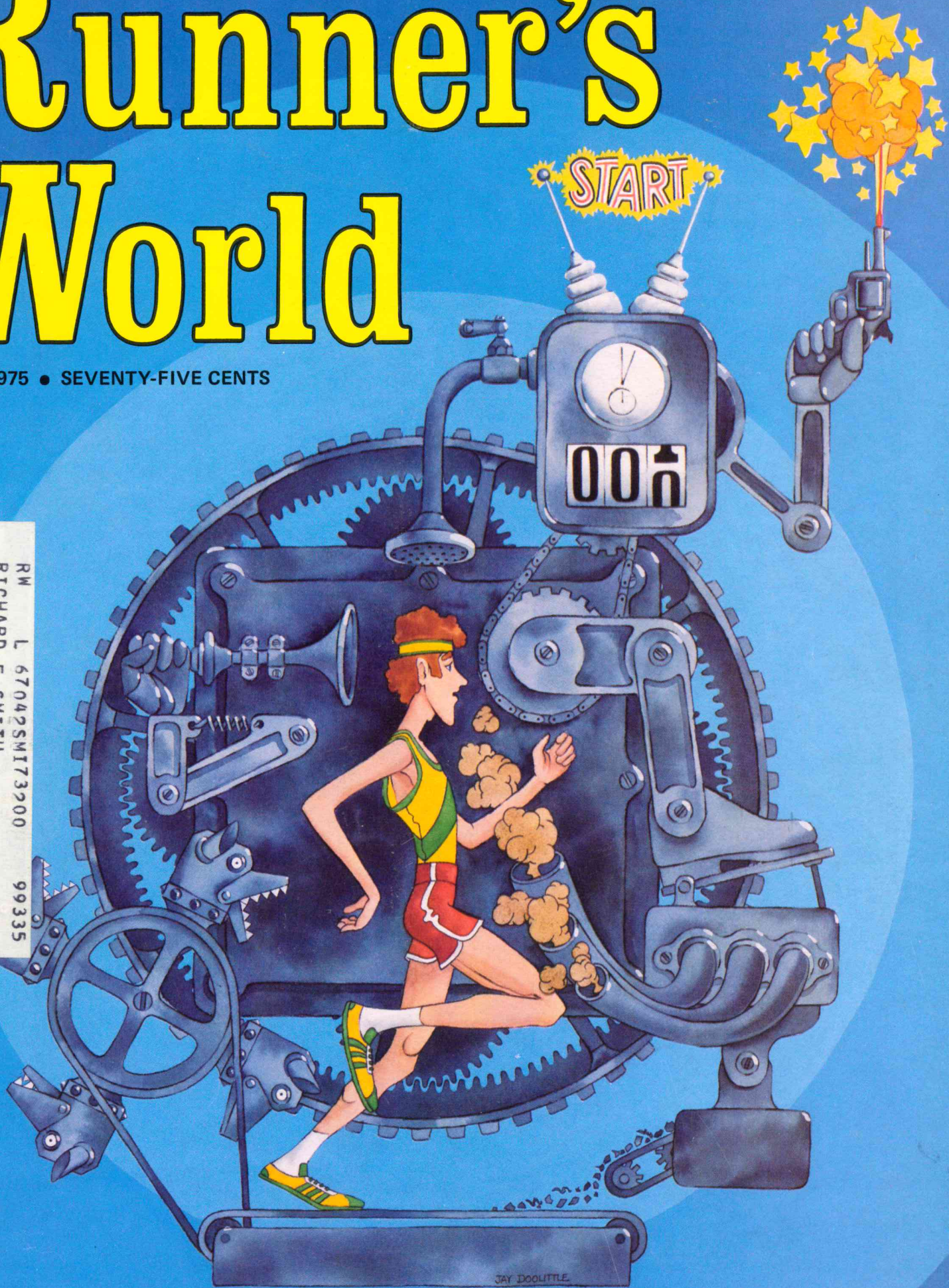


Runner's World

JULY, 1975 • SEVENTY-FIVE CENTS

RM L 67042SMIT73200 99335
RICHARD F SMITH
BOX 670
EL DORADO KS

67042



JAY DOOLITTLE

In tribute to the long distance runner

The Old Town Holiday Inn tips their hat to the participants in these long distance races and to the marathon festival put on by the District of Columbia Road Runners Club.

The Old Town Holiday Inn is celebrating its opening at the restored Tavern Square by sponsoring the annual \$1000 first team trip prize in the 36-Miler to compete in the original Two Bridges Road Race in Scotland. T-shirts to all finishers.

FOURTH DISTANCE RUNNING FESTIVAL

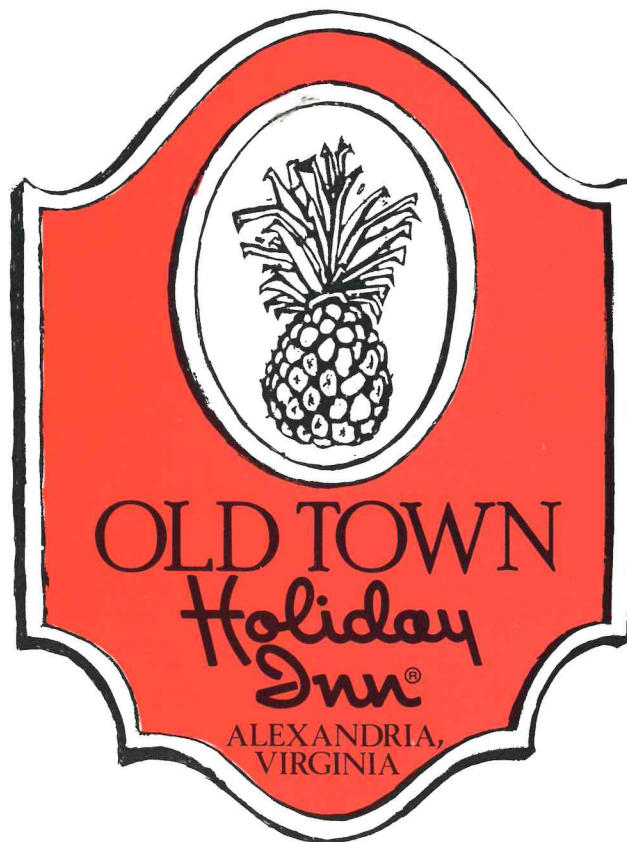
Race Headquarters
Old Town Holiday Inn

Schedule of Events
October 25, 1975
6 P.M.

Dutch Treat Spaghetti Dinner
and Festival Slide Show
October 26, 1975
8 A.M.

Alexandria Two Bridges 36-Miler
Alexandria Two Bridges Marathon
Women's 15-Kilo Race
November 15-17, 1975
7 A.M.

C&O Canal 100 Kilo Run
C&O Canal 300 Kilo Run



PUT YOUR FOOT INTO ADIDAS!



The best athletes in the world wear adidas shoes, not only during competition but also in training. Why? All the latest technical advantages are built into the world's most popular and widely imitated sport shoes.



adidas® 

More information available at your next sporting goods dealer or write to:

Libco
1 Silver Court
Springfield,
N. J. 07081 U.S.A.
(201) 379-1630

Closco, Inc.
2200 Martin Avenue
P.O. Box 299
Santa Clara, Ca. 95050
(408) 246-8350

Vanco
5133 W. Grand River Ave.
P.O. Box 870
Lansing, Michigan 48901
(517) 485-1726

Hughesco, Inc.
2830 Merrell Road
Dallas, Texas 75229
(214) 358-4291

adidas-Canada, Ltd.
550 Oakdale Road
Downsview 479
Toronto, Ontario
(416) 742-3872-6

Bind It!



Runner's World back issues don't get out of date like other magazines do. The articles on training, diet, technique and physiology contain information you'll need as long as you continue to run.

Now you can preserve and protect a year's worth of your favorite running magazine with custom-designed red and gold binders. These handsome hardback covers will keep your back issues in order and readily available, and make them into books you'll be proud to have on your library shelves.

Each 9 x 11½ x 3 binder holds twelve issues.

Please send me _____ Runner's World Binders @ \$5.95 each. I have enclosed 15 cents each postage and 6% tax (California residents only).

Name _____

Address _____

City/State/Zip _____

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

RUNNER'S World

Box 366, Mountain View, California 94040

Office: 1400 Stierlin Phone (415) 965-8777

Volume Ten — July, 1975 — Number Seven



Contents

ARTICLES

Interview: Steve Hoag	11	<i>Garrett Tomczak</i>
Running By the Numbers	14	<i>Carl Foster</i>
The Pause That Refreshes	18	<i>Joe Henderson & Jack Daniels</i>
Rehabilitation of a Cardiac Cripple	21	<i>Dr. William Marley</i>
What Running Does to the Head	22	<i>Dr. Richard Powell</i>
"Mini" Race and How It Grew	24	<i>Kathrine Switzer</i>
Back to Where it all Started	26	<i>John Byrum</i>
Five Years and Three Minutes Later	30	<i>Paul Fetscher</i>
You are What You Think You Are	32	<i>Ken Norton</i>
City Series: Toronto	36	<i>Tim Uuksulainen</i>

DEPARTMENTS

From the Publisher	2	Looking at People	40
Runner's World Editorial	5	Racing Highlights	42
News and Views	7	August Coming Events	44
Medical Advice	39	Readers' Comments	46

From the Publisher

I stuck my head into Joe's office as I do most mornings to say hello and to find out where we stood on a couple of projects. Joe told me that Steve Prefontaine was killed in a car crash early that morning. At first I couldn't believe it. I kept saying to myself that it wasn't true. Pre had just run a great race the night before and things were really falling into place for him.

I had talked with Steve six months earlier about an article on some of the gripes, suggestions and comments Steve had on the AAU. Steve mentioned that a lot of what had appeared in the newspapers was not true. "You know how newspapermen are," he said.

This is why we both felt that a good "tell it like it is" article in *Runner's World* would be the way to go. I did not believe a lot of what he was preaching, but some of his ideas were sound enough to explore.

We parted with the idea that we would contact Kenny Moore and see if he would be interested in talking with him and writing up the article. We never did set up the article. Why, I don't know. It was just one of those things—there was always tomorrow.

And now it is too late. But that doesn't mean we should forget about what Steve was saying. He was willing to tell publicly what was on his mind. Most athletes aren't this bold. A lot of what Steve said made sense and we should continue making things better for runners at all levels. Steve is dead but the sport goes on. Let's all continue to do what is needed to improve the spirit. We are going to miss Steve Prefontaine.

Moving alone...on a brighter note on May 5, my wife, Rita, gave birth to a baby boy. His name is Michael Jon. His sister Lisa is really excited about her new baby brother. This rounds out our family and we are so happy. We still aren't able to sleep through the night, but that will come. At least I hope so.

Bob Anderson

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
 Artists: Micá Quinn, Bil Canfield

PRODUCTION STAFF

Managing Editor: Diane Teshima
 Production Managers: Jan Herhold,
 Beverly Robinson
 Production Assistants: Gloria Gleichner,
 Teresa Henderson, Melinda Norris,
 Diana Yee

EXECUTIVE STAFF

Publisher: Bob Anderson
 Financial Manager: Gregg Pullano
 Advertising Manager: Lynne Hart
 Subscription Manager: Rhonda Swan
 Circulation Director: Debbie Jenkins
 Promotional Manager: Beverly Robinson
 Office Manager: Lyman Dickson
 Customer Service: Barb Book
 Shipping Manager: Gene Yukawa

CONTRIBUTING EDITORS

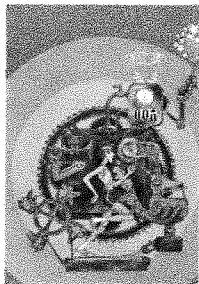
Marc Bloom Hal Higdon
 Janet Heinson Hugh Sweeny

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 Ulliott
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



COVER:
 Jay Doolittle's painting dramatizes the dilemma facing runners before races. "Running by the Numbers" on page 14 offers solutions.

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.

Introducing your old running shoes.

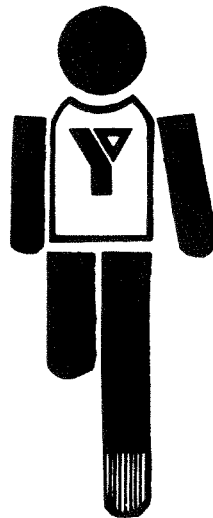
If you're like most of us, you hate throwing away an old pair of running shoes. And for some good reasons. You paid good money for them. It took more than a few hard miles to break them in properly. And there's probably a lot of wear left in every part of them but the soles. So don't throw them away.

Send them away. For \$11.95 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:

- Replace inner soles and arch supports.
- Replace worn soles with factory-fresh originals.
- Repair tears in canvas, nylon or leather outsides.
- Exclusive Tred 2 application process guarantees a perfect, long-lasting bond.
- Reinforce weak or torn stitching.
- Replace worn shoe laces.

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.



GRAND RAPIDS YMCA MARATHON

Held at Grand Valley State College
 Saturday, November 1, 1975

Races: 6½ miles, 13 miles, full marathon.

Entry Fee: \$3.00 until Oct. 20, 1975.

Late Fee: \$5.00 accepted until 11 am on Nov. 1.

Awards: Male Division 4 age groups; Female.

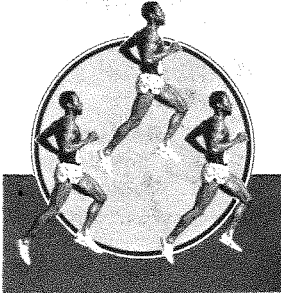
Special T-shirt to each entrant. Certificate given to all finishers. AAU certified course. Sponsored by Central YMCA, Noon Y's Mens Club. For official entry blanks write:

YMCA Grand Valley Marathon
 Central YMCA
 33 Library Street
 Grand Rapids, Mich. 49502

Did You Know

That the experts say good running form starts in the hips and hands, and ends in the legs and feet? That racing has something for everyone, not just the fastest runners?

Running with Style



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 _____

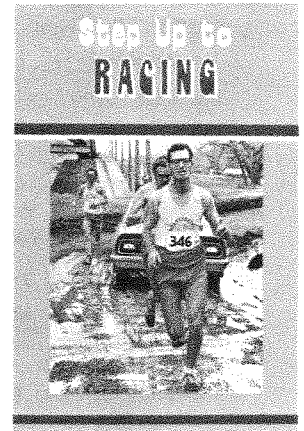
Address _____

City/State/Zip _____

California residents add 6% sales tax.

STEP UP TO RACING

80 pages
\$1.75



THE FIFTY FUNDAMENTALS

Running and racing aren't much alike. The action may be the same, but not the effort and attitude.

Racing is a step up from running, and other booklets have told the differences between the two:

"Running is physical, but racing is emotional."

"Everyday runs balance themselves between comfortable and uncomfortable. Races operate close to the jagged edge of exhaustion."

"Running is traveling a familiar route. Racing is exploring the unknown."

But while the two are different, they go together. Running is the base which decides how high the racing peak can go. So we first published an encyclopedia-like introduction to running methods—*First Steps to Fitness*.

Step Up to Racing is the logical sequel, for people who want to go all-out.

Topics are arranged alphabetically (from "Age-Group Racing" to "Women's Competition") and are cross-referenced to provide quick answers.

First Steps has one page on racing. *Step Up* splits that question into 50 parts and looks at each one carefully.

Order yours now! 80 pages. \$1.75.

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

Please send me _____ copies of **STEP UP TO RACING** at \$1.75 per copy. Add 15 cents for postage.

Name _____

Address _____

City/State/Zip _____

California residents add 6% sales tax.

Steve Prefontaine

Photos by Jeff Johnson and Mark Shearman.

Steve Prefontaine was a performer. In distance running, there never has been one like him, and perhaps there'll never be another.

There have been and will be faster runners, but none so skilled at exciting crowds. A performer needs a stage and a crowd the way an artist needs paint and canvas, and Prefontaine had the ideal ones in Eugene. The people there knew something about him that most of the rest of us didn't.

Pre appeared to be an easy man to cheer against when you didn't know him, and few people outside of Eugene and Coos Bay, his hometown, knew him well.

The rest of us knew the Steve Prefontaine who was filtered through journalists' pens. They caught him saying some outrageous things.

Janet Heinonen knew him better than other writers, though. She knew how to get through his brash shield. One interview with him started this way.

"The image-makers have been hard at work on Steve Prefontaine, as they are on all athletes needing simplifying and classifying. The picture they paint of Steve is one of a cocky kid running around with a large chip on his shoulder, daring anyone to knock it off."

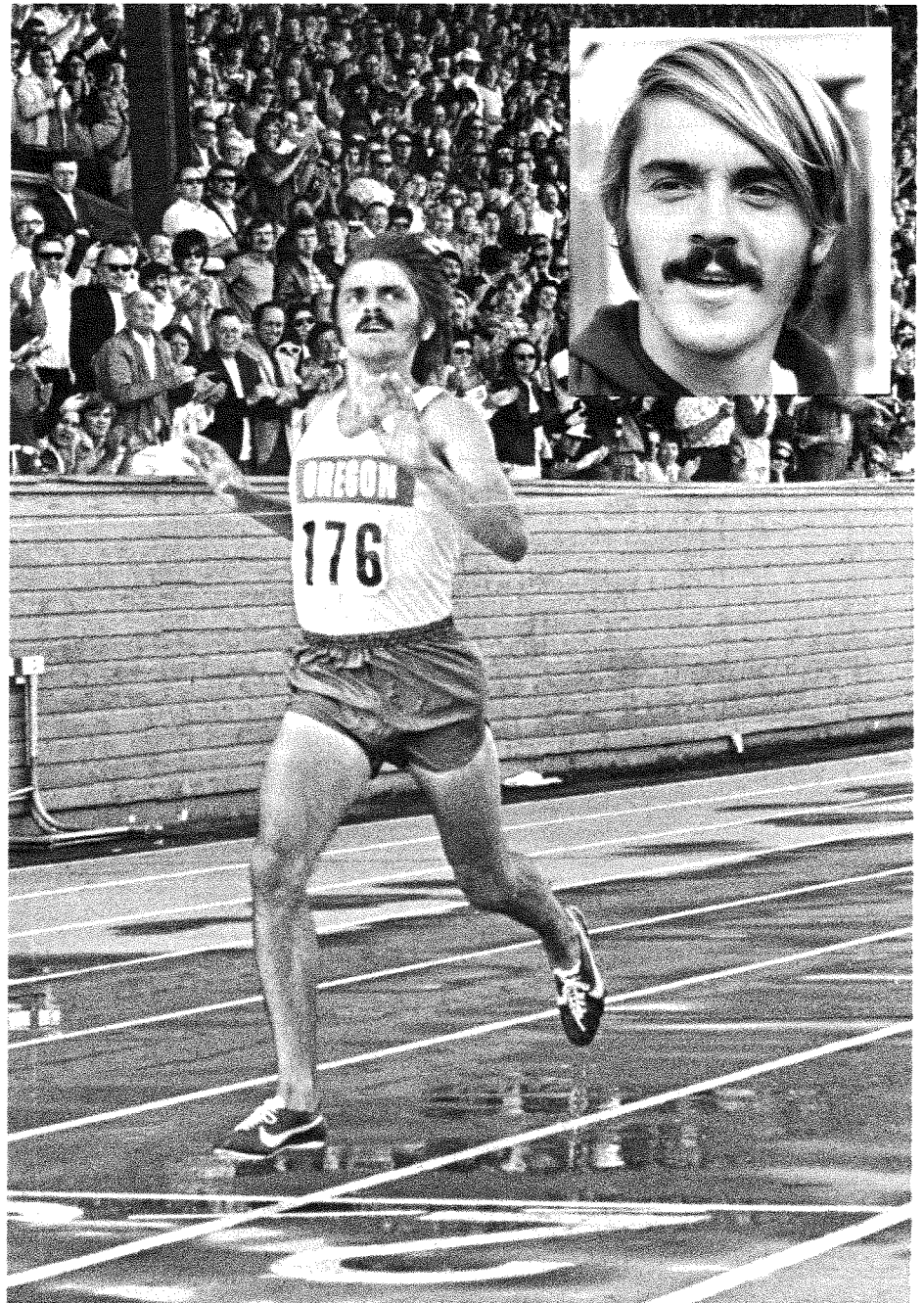
But the interview showed a quieter and more introspective Prefontaine. He talked of himself as an actor:

"I think I have rapport with the people here in Eugene because being out there by myself I'm an actor in my own way. I'm a performer. If I make a good performance and the people appreciate it, I appreciate their support. It's a two-way thing.

"Maybe another reason is because I'm very emotional. I'm a very emotional person. I get hurt easily, and I'm very sensitive. And when someone appreciates something I do, it really turns me on.

"When I make a good performance, I think I'm an artist. If someone likes a painting on the wall, they smile. If someone likes what I did, they're going to smile, or clap, or respond."

The Eugene crowds responded to him with near-mania, but the people there also knew him as a fallible individual. "I



like to talk with people and have them accept me as Steve Prefontaine, the human being who lives in Eugene, Ore., as compared to Steve Prefontaine, the athlete, the person who runs."

On May 29, the Eugene crowd came to watch him run as they had countless times before. He was 24 years old

now, out of school, but still living in Eugene because he liked the atmosphere.

Steve didn't disappoint his crowd. (He seldom did.) He came close to the American record for 5000 meters. The next morning, they and the rest of us woke up to the news that he was dead.

We may never see another like him. ●

"Show me a runner whose shoes don't fit, and I'll show you a loser"

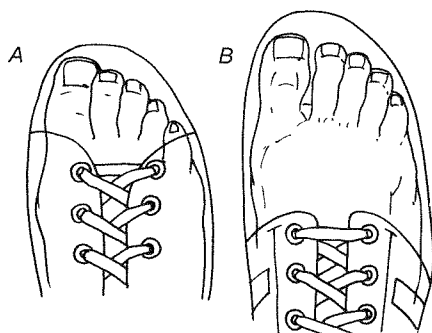
— Jim Davis, President, New Balance Athletic Shoe Inc.

At New Balance we tend to think of those words as Running Shoe Gospel. For 20 years we've been manufacturing racing and training shoes in width sizes as well as lengths. Conventional athletic shoe thinking says that one width can be laced and tightened to fit all feet. We say that's just so much bushwah. And the pinched toes and sore arches and blisters on top of the feet experienced by runners who wear those other shoes just prove our point.

With New Balance you get the shoe that fits your foot perfectly, in all lengths and widths from 3½ AA to 15 EEE. Our laces run only the length of the special saddle over the instep — which puts tightening and arch support exactly where they should be. Your toes stay loose, and the seamless tongue prevents any chafing or binding.

A
Lacing to the toe constricts the toes and may cause blistering on top of the foot.

B
The New Balance method restricts lace tightening to our saddle over the instep, assuring toe freedom.



To order these New Balance shoes, or for information about our incredible "Spare Pair" resoling service, send us the coupon below. A foot tracing taken while you are standing helps us guarantee your perfect fit.

Please send me:

	length	width
___ pair 3:05 @ \$23.95	Size: ___	___
___ pair 2:05 @ \$20.80	Size: ___	___
___ pair Trackster III @ \$27.95	Size: ___	___
___ pair Competition @ \$17.50	Size: ___	___

___ Spare Pair information
___ free New Balance catalog

I enclose \$ _____ plus \$1.75 per pair for postage and handling. Immediate delivery assured.

name _____

street _____

city _____

state _____

zip _____



New Balance Athletic Shoe, Inc.
176 Belmont Street
Watertown, Massachusetts 02172



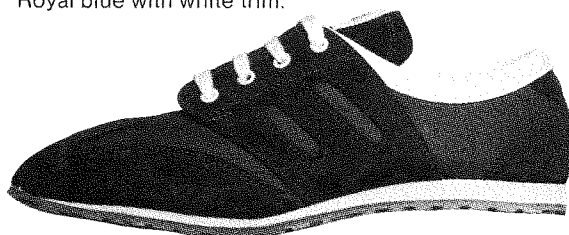
Interval 3:05 The ultimate training shoe, weighing only 9½ oz. yet durable enough for road racing. Leather-reinforced nylon upper with flocced nylon lining. Protective midsole plus heel-elevating soft wedge to reduce extension of the Achilles tendon and cushion the leg. Flared heel to stabilize the foot during heel strike and reduce ankle-roll injuries. Men and women, 3½ AA to 15 EEE, in Navy blue with white trim.



2:05 Ideal for training and speed work, and now made of tough, lightweight pigskin with shock-absorbing, molded Kraton® sole. Reverse ripples for added traction and shock absorption. Rolled heel to stabilize the foot during heel strike. Men and women, 3½ AA to 15 EEE, in Kelly green with tan trim or Royal blue with white trim.



Trackster III The most protective of all training shoes, with a molded Ripple® sole to absorb up to 40 percent of road shock. Unique foxing construction for greater lateral stability, and foot-conforming soft suede upper for comfort. Men and women, 3½ AA to 15 EEE, in Royal blue with white trim.



Competition The totally new idea in racing shoes: a perfect fit for maximum performance. Width sizing, plus ultra-light 7½ oz. weight. Knobby sole for excellent traction on all surfaces, and New Balance's unique-at-the-price wedge/midsole combination to keep weight forward and absorb shock. Men and women, 3½ AA to 15 EEE, in Royal blue with white trim. The shoe that placed third in the Boston Marathon.

NEWS & VIEWS

Post-Boston Blues

What does the runner do after all his or her goals have been suddenly and unexpectedly achieved? This year at the Boston marathon, many runners ran lifetime bests and will be faced with the awesome task of repeating the performance or improving upon it. Many runners ran far faster than they have ever before. (I, for instance, ran over six minutes faster than my previous best time.) We've conquered the known world. Now how do we run to Mars?

We were very lucky this April. The weather blew cool and from behind. Next year might not be so nice. This sort of thing has happened in the past. In 1908 the weather was cold and spitting snow. The winning time was 2:25 and all the following times were fast. In 1909, the temperature reached 97 in the shade and the winning time was 2:53 for the then 24½-mile course. Newsmen dubbed the race "the Inferno."

This cycle has often repeated itself at Boston since then. In 1970, Ron Hill ran 2:10:30 in the rain and I achieved my goal of sub-2:40 by running 2:29:57... far beyond anything I had hoped for.

"Wow! I'm national class...world class!" I thought. And I demanded national and world-class performances from a 2:40 body. I dropped out of my next four marathons because I tried to run 2:25 pace under much less favorable conditions.

Several million things were going for us between Hopkinton and Boston again this year. Most of them were people, cheering, waving flags and offering refreshments. The rest were the other runners pushing and pulling us along while running their fastest races. Another help was, of course, the tail wind. These conditions, which allowed me to get a 2:19 marathon from a 2:25 body, probably won't repeat themselves very often. So I have to be prepared for a letdown.

So what can be done to minimize the ill effects of the complex? It manifests itself in one of two ways: psychological or physical injury. Physical injury is the easiest to prevent. Take time off after a very good marathon. There is a temptation to train even harder and expect better results, but the dangers increase alarmingly.

You will be stiff and sore after a

good marathon. The soreness indicates muscle and joint damage that must be repaired before we can tear it down again and then build it up stronger. Only light jogging and gentle stretching should be done during this period. The transition back into light training, then hard training, then racing might take two weeks or two months. Don't rush it. You can't continue as if nothing happened after you've just conquered the known world.

Preventing physical injury is easy, but preventing psychological injury runs contrary to the competitive distance runner's instincts. In the first case, the runners must avoid combat. But in the second, he or she must seek it out and *lose*. After a goal-fulfilling race, the runner's mind is full of imaginings. These dreams won't be fulfilled immediately because you just fulfilled some. You're not as good as your dreams, and to convince yourself of this you need to lose a little.

My favorite way to lose is to run on the track. The shorter track races help my speed, which will help marathoning later, and I get beat and expect to. There is no direct comparison of times between my mile and the marathon, and miles don't take anything away except dangerous pride.

But what if you hate tracks? Then try an utterly different kind of race...like a hill climb...like Mt. Washington. Every year, I aim for Mt. Washington. The mountain is really a lot easier than a marathon because there is only one hill and you don't have to run 18 miles before you get to it.

But what if you don't have a mountain handy? Try a new sport for a while. I took up bicycle racing last year after Boston and had a great time getting outsprinted by all those guys in their super-expensive machines.

Lastly, you can always go to your local road race and intentionally finish dead last. From your previous position on top of cloud nine, you could fall off. But now you have no place to go but up.

from Tom Derderian

Keep It Growing

In the March issue ("Timing the Multitude"), Marshall Childs suggested ways that Boston could handle 10 times as many runners as it now does. Here,

T -shirts



Boston Marathon T-Shirts—your choice of colors.

Also available—"Patrick," "adidas," "I like running" T-Shirts. \$4.00 each.

And . . . get your own name printed on your shirt. 50¢ (up to 9 letters). 5¢ for each additional letter.

Special offer—custom made T-Shirts for orders of 25 or more. Send us your sketch and we'll do the rest.

ALSO AVAILABLE

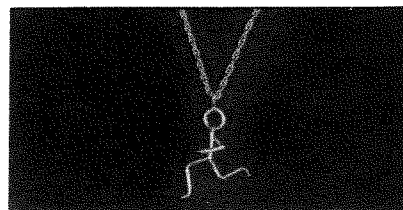
Patrick Running Shoes
Racing flat
Training shoe \$22.00

\$1.00 shipping fee on orders up to \$50.00.
No charge for orders over \$50.00.

CONNECTICUT SPORTING GOODS

771 Bank Street
New London, Connecticut 06320
(203) 442-8360

AT LAST YOUR SYMBOL IN JEWELRY!



"THE ROADRUNNER" STERLING SILVER NECKLACE CREATED BY A RUNNER FOR RUNNERS

A unique, completely handcrafted 1-inch sterling silver stick runner on an interwoven 18" sterling silver chain. An excellent gift for him or her!

Detach and mail with your order

Please send me _____ "RoadRunner" necklaces at \$15 each. (Price includes postage and handling.) N.Y. State residents add applicable sales tax.

Name _____

Address _____

City _____

State _____ Zip _____

All orders filled promptly.

SEND A CHECK OR MONEY ORDER TO:
SPORTING LIFE JEWELERS,
175 5th Avenue
New York, N.Y. 10010

Tahoe Trails



A place to train at Tahoe's North Shore.
8300 feet

- Talk and train with:
Doug Brown
Barry Brown
Chuck Labenz
Tom Von Ruden
Jeff Galloway,
Gary Tuttle
- Low rates, stay as long as you like
- Team and family discounts
- Road races and clinics
- Coaches room free with 5 or more athletes

Road Races:

July 6: Race Mt. Rose
August 2: Tahoe Trails Race
August 16: DeCelle—Lake Tahoe Relay

Contact

Jeff Galloway
c/o Mt. Rose Lodge
P.O. Box 3776
Incline Village, NV 89450

Midwest Runners

A complete schedule of distance races

Sponsored by:

Sauk Valley

June 8, Sauk Valley 10,000 meters, Age Groups
July 12, Irish Hills 10 Miler, Open
July 26, Leprechaun Mini-Marathon, 13 Miles, Open
August 16, Fartlek-Cross Country Run, Open
August 30, Labor Day Trot, Open, 10 Miles

AWARDS REFRESHMENTS
FUN

For information contact:
Phil Gross, Meet director
Sauk Valley Farms,
Brooklyn, Michigan 49230

he analyzes the organization of the 1975 race.

What's this about a three-hour time limit for the 1976 Boston marathon? Nonsense. We're over the hump, and it's no longer necessary to cut down the field. This year, the whole thing went off rather smoothly in spite of the record turnout. Everybody is learning. The hundreds of people who helped out did a better job this year than last.

True, there was an annoying snafu at the finish line this year. As the *New York Times* remarked, "The surge of 220 finishers within five minutes at the three-hour mark proved too formidable for officials to record on the spot, and a snake-line of athletes backed its way onto the course." At its worst, the line caused runners a 10-minute delay while they walked (or, in some cases, crawled) the last 150 yards to the finish line.

What went wrong at the finish? The two finishing chutes should have been enough, and I'm sure that the ballyhooed \$7 million computer did just as it was told as fast as they could tell it. But apparently there was only one number-taking team serving the two chutes, alternating between them. In queuing theory, that's a no-no. It creates a bottleneck, and is no better than having one chute. If you operate two chutes, you need two teams taking numbers.

From the results I've seen as of this writing, it appears that there were between 50 and 60 finishers during the busiest minute this year, compared to about 40 last year. The large number of fast finishers surprised everybody. The weather was to blame. Who could have predicted that last year's weather, so great that it was described as once-in-a-lifetime, would be repeated this year?

For 1976, it would be safe to figure that about 70 runners will finish during the busiest minute. This means that the chutes have to be able to handle 70 runners per minute at the height of the confusion. If there are two chutes, they have to handle 35 per minute apiece and coordinate the results.

Other than at the finish line, things were pretty good. I was impressed by the quiet, spacious efficiency of the medical rooms both in Hopkinton and at the Prudential Center. Traffic control by the police was the best ever, all along the route. Dressing rooms at both ends hummed with activity, but without the panic associated with overcrowding. Hand-lettered signs have begun to appear, helping immensely to direct the English-reading runners.

The main problem in Hopkinton

Bring Your Shoes

Back to Life

AT HOME...

OVERNIGHT WITH



SHOE REPAIR

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

ALREADY IN USE BY HUNDREDS OF THOUSANDS OF TENNIS PLAYERS

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

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



SEND \$2.95 + 25c POSTAGE TO
ECLECTIC PRODUCTS
P.O. BOX 476
LOMITA, CALIFORNIA 90717

You're invited to the
VIRGINIA 10-MILER



Lynchburg, Virginia
Saturday, September 20, 1975

It will be hard to top our 1974 inaugural race, but we're trying. Last year's winner, John Vitale, was followed by Jack Bacheler, Jeff Galloway, Barry Brown and five runners from William and Mary, in a field of 225.

This year you're invited to join us on September 20 and run our challenging course through the heart of Lynchburg in the foothills of the Blue Ridge Mountains. There will be 7 age/class divisions competing for trophies and awards. All finishers will receive a race shirt and printed results will be sent showing ages, your 5 and 10-mile times, and your age division and overall place.

The Virginia 10-Miler will highlight Lynchburg's fall festival, Kaleidoscope '75, September 19-27.

THE VIRGINIA 10-MILER
Rudy Straub
P.O. Box 1280
Lynchburg, Virginia 24505

Please place me on your mailing list for race information:

NAME _____
ADDRESS _____
CITY _____
STATE _____
ZIP _____

now is the lack of toilets. I'm not sure why marathon runners line up endlessly for them in the high school building. Marathoners are perfectly used to discreet trips into the woods, and there are plenty of woods behind the school. I am beginning to suspect that those toilet lines are more a social than physiological phenomenon.

The lack of water in the first 10 miles is a potentially serious deficiency. The weather has been too cool for heat exhaustion during the last two Boston marathons, but Massachusetts can suffer murderous heat in late April. The next time that happens, I hope there will be lots of water early. The most effective means of providing water is to contact the citizens of Ashland and Framingham along the course, encourage them to bring out their hoses, and furnish them with paper cups.

The order-of-magnitude increase in the number of runners in the last dozen years has changed the character of the Boston marathon in some respects. But the essential things are now being done better than they were before. The large number of runners produces a feeling of togetherness that runners experience on no other day of the year. I look forward to even happier experiences as the number of runners increases by another order of magnitude.

from Marshall Childs

Multiple Masters

This spring, I traveled to Raleigh, N.C., to compete in the Southeastern Masters track and field championships. When I arrived, a runner asked me what I was running. I told him the steeplechase.

"What else?" he asked. I said that was the only event I had entered. He looked at me as though I was rather strange, coming all that distance to compete only in one event.

The following morning, I did sneak into a second race mostly as a workout. The runner who finished behind me said he had run in three races the previous day—an interesting admission since one of them was the 5000-meter walk.

It seems a one-event runner is a rarity in masters competition. Most other athletes at Raleigh thrived on the cornucopia of competition open to them. Bob Boal, the meet director and a man in his 60s, was a prime example. I saw him go from the finish line of the 100-yard dash to the high jump, and later he was in the steeplechase, going over the barriers with a novel two-handed vaulting style. The

Memento from Boston



\$5 each

Top quality 100% cotton T-shirt
Navy or Red shirt with
White lettering
Medium -- Large -- Ex-large

Includes all postage
The Fell Co.
511 Lincoln Ave.
Winnetka, IL 60093
Allow 3 weeks delivery

5TH ANNUAL 24-HOUR RELAY

Fort Meade, Maryland, Saturday
and Sunday, August 9 and 10, 1975

Eastern Section of **RUNNER'S
WORLD** National Contest

440 yard, all-weather track, all runners timed.

Trophies to top 25, medals to top 5 teams, trophies to top 10 women and top 10 military.

A 50-mile run or race walk will start at 6 p.m., relay starts at noon.

1974 relay: 207 finishers.

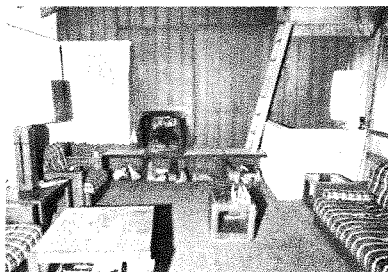
\$1.25 entry. Register at the race or with Bob Rothenberg, 13G Ridge Road, Greenbelt, MD 20770, (301) 474-6759.

1001 Nights



You may not be able to stay at Mecca for 1001 nights, but you can stay 30 nights on a budget of a Bedouin. (\$200 or less)

And you can live like a shah.



Not only that, you may sit at the feet of teachers equal to the caliph-ate:

July: Talmage and Frances Morrison

Chuck Smead

Dr. Otto Appenzeller

Dr. Judy Appenzeller

Dr. Joseph Arends

Dr. E. Reed Heywood

August: Joe Henderson

Edward C. Frederick

George Young

(This is only a partial list of wisemen.)

For a small fee and a little effort, you may also earn university credit from Utah State University.

So what else is new? Well, we have separate quarters for female runners under the supervision of Ms. Joli Sandoz (BYU).

By attending Mecca, you support the the distance running movement in the U.S. We hire over 100 student runners.

Plan your pilgrimage today!



Contact: Rich Heywood, Director,
Runner's Mecca
Box 000
Parowan, Utah 84761
(801) 586-6778

next day, he was talking about learning to pole vault.

What is it about older runners that cause them to double, triple, quadruple and other -uple at masters meets? Very few distance runners successfully double at the NCAA or AAU track championships, or in other top-level competition. And you certainly don't see odd combinations such as the 100, high jump and steeplechase. What explains the multi-event masters?

First, and perhaps most important, competition is still fun to them. While masters track is becoming more and more professionalized with the emergence of runners who never have retired, the sport is all new to many master runners. They seem to embrace their new hobby with all the fervor they can muster.

While masters track has prospered, there are still relatively few major meets in the country. If you jetted all over North America this spring and summer, you might find only a half-dozen important meets in which to compete. So when a good masters meet does come along, the participants want to run every event they can—or they may have to wait a long time before they get another opportunity. A man in his 40s, 50s and 60s may feel the press of time more than does a teenager.

Part of the problem—if it is a problem—is that true excellence is not as readily available in masters track. Most of the true champions have mounted their Olympic medals in glass cases and retired, content that they have made their athletic statement. Some of the current crop of masters champions are people like myself who were second-stringers in their youth, thus never outgrew their desire for glory.

Many masters runners are converted joggers—people whose enthusiasm exceeds their talent. Because of physical limitations in certain areas, they compete at a lesser level than top class runners. They fail to exert themselves completely, and thus fail to injure themselves. Mediocre athletes survive, often thrive, because they are mediocre.

This phenomenon may protect masters runners from injury and permit them to compete in events so numerous that they would exhaust an Olympic decathlete. Eventually, as standards rise in masters track with the influx of unretired runners, the multiple-event master may disappear. It's inevitable, but in some respects, it will be a loss. The thought of a 60-year-old man tripling in the 100, high jump and steeplechase is somehow appealing.

from Hal Higdon •



AUTHORS!

Send us your sports manuscripts. We've already published books in several different sports, and we're looking for new books in every sports field conceivable, from acrobatics to water polo, ballooning to yoga. Address all inquiries to:

Bob Anderson, Publisher

World Publications

Box 366

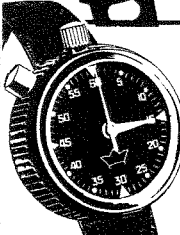
Mountain View, CA 94040

NEW WRIST TIMERS

APOLLO 644
7 Jewel-1/5 Sec.
w/30 min. register
Side button for
time-out. **\$32.50**



LEMANIA 501.218
Easy to read dial
Lightweight
Fiberglass Case
60 Sec. sweep
60 Min. center reg.
SPECIAL \$47.50



HEUER 775.901
1/5 Sec. central-60 Min.
register. 7 Jewel-
Lever movement,
Shock-protected
\$71.20



master charge
your BANKAMERICA
www.cards

IN CALIF. ADD TAX
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

Steve Hoag

Place: Minneapolis, Minn. Date: April 29—a week and a day after the 1975 Boston marathon. The last of the snow melted four days ago, and it's been raining, on and off, for the past three.

Steve Hoag had called earlier in the week, and we agreed to meet today for some interval quarters. He was complaining over the phone of still being a little stiff, and I was mildly surprised to hear it. Surprised for two reasons:

1. I have a difficult time imagining that Steve feels what other runners feel. I've hardly ever heard him gasping for breath. His face seldom shows any signs of physical discomfort. He doesn't seem to get blisters or stone bruises or tendon problems. In fact, he seldom has any injuries, and those he does have are of very short duration. He recovers remarkably from the toughest workouts and races. In short, even after a 2:11 effort, the very idea of stiffness seems foreign to the way I think of Steve.

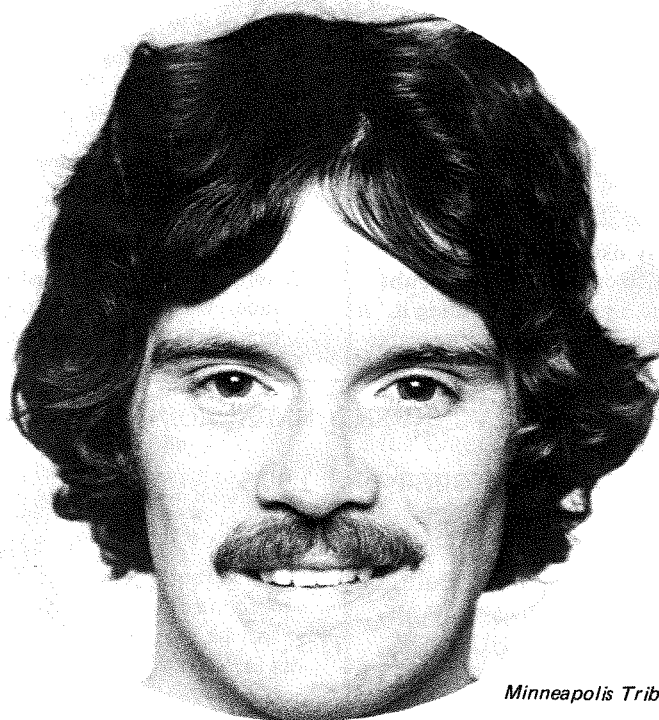
2. One hardly ever hears Steve complain. Once, the winter before last, he called to say he wouldn't be able to make a Tuesday workout. This was unusual, I asked him if anything was wrong.

"Not really," he said, "I picked up a touch of pneumonia. Nothing to be alarmed about. I should be able to make the Thursday workout."

A touch of pneumonia! I could hardly believe my ears. If it were me, I'd still be pumping it for sympathy. But for Steve, it was hardly worth mentioning. He was at the next workout, bundled up more than usual, but the pneumonia was never spoken of again.

Nor do I expect him to mention his stiffness again. Whether because it's gone or simply not worth remarking on, I don't know. Whatever way you look at it, whatever the proportions of physical ability and mental toughness, it all adds up to a very remarkable athlete.

Let me illustrate. Steve was a steady, but unexceptional, 4:25 high school miler. Although he went to the University of Minnesota without benefit of a scholar-



Minneapolis Tribune photo

ship, he later earned one by winning the Big Ten two-mile (in 8:55). In his senior year, he made All-American at six miles (29:03), and after reaching that pinnacle of success, promptly retired at the first opportunity (i.e., graduation day).

After picking up a degree in elementary education, he did what so many new teachers do—that is, sold insurance. Steve also gained 30 pounds, and became unrecognizable to his friends (not to mention himself). He felt guilty about being out of shape, but not guilty enough to start running again.

Seeing Frank Shorter win the Olympic marathon was a turning point. It inspired him out of inertia, and that night he ran four miles—the first in over two years. And practically died. He kept with it though, ran through that winter, tried to shake the sobriquet "Fieldhouse Fats," and in the spring ran 2:25 at Boston. He came back the next year and went 2:16, and this year turned a sparkling 2:11:54, the fourth fastest ever at Boston, the seventh best ever by an American.

Steve, at age 28, is 5'8", 135 pounds. Last year, he finally landed a teaching job, but was forced to take a leave of absence in order to compete in Kosice, Czechoslovakia (he was 16th in 2:22). He is planning to return to teaching next year, and is currently employed as an orderly at the U. of M. Hospitals.

He was coming from that job when I met him at the track. We ran about half the workout before the rain started.

Not hard, but steady and cold. Neither of us figured it was worth getting sick to finish, so instead we went over to my place, opened some beers, switched on the tape recorder and just talked. Running talk. What follows is Steve's end of that conversation.

* * *

A lot of people criticized Rodgers for stopping when he drank, but I think he was just using good sense. Sometimes it's almost more important to get down a lot of fluid than it is to drink on the run and save a few seconds.

There was this picture in the paper, though, of him tying his shoe, and what with that and stopping for the water, it made me feel kind of inferior. Hell, for all I know he stopped for a cheeseburger and an order of fries, and still ran 2:09. (Laughter)

* * *

I was lucky and didn't have any trouble getting water from the crowd, but it's amazing how desperate you can sometimes get. I was running along and saw this dirty sponge, obviously used, and I nearly picked it up in the hope of getting a few drops out of it. You get so greedy out there.

* * *

I blacked out once at a race in Michigan City, Ind. It was a real hot, humid day. I hadn't taken a sip of water, and collapsed just a short way from the finish.

Two cops came out of the crowd and scraped me off the pavement. Somebody said after that I was running in place between them. I don't remember any of it.

I had such a bravado back then. I didn't care who was in the race, didn't care what the conditions were, didn't think I had to take water. Jesus, I really learned my lesson there. I take all the water I can get my hands on now.

I really liked it when people passed out ice cubes. I'd grab a cube in each hand and just run holding it. It was kind of a diversion, and the water

really felt good when it trickled down my arms. I've read that you get tremendous cooling in your palms and wrists. I don't know if that's true, but I really found it refreshing. And then, when it melts to chewing size, I just pop it in my mouth.

One guy told me that on really hot days he'd take his hat, soak it and place it in the freezer. Then, right before the race, he'd put it on frozen. He said it kept his head cool for at least half the race. Wasn't it old Johnny Kelley, or one of those guys, who used to get a fist

full of ice at the aid stations and tuck it under his cap? It would sort of lay up there and melt all over his head.

That probably wouldn't work for me, because I don't like to wear a hat. I do use a sweatband though. Well, actually it's the waist band out of an old pair of jockey shorts. Penney's Towncraft, size 30. (Laughter.) Really, they make excellent headbands. So, when my underwear gets holes in it, I don't throw it away; I simply cut them up for headbands. In fact, I'm sure that if I hadn't worn one I could never have broken 2:20. (More laughter).

A lot of people ask if I have any hard feelings about finishing second in such a good time. I don't. Practically any other year, with the exception of one, 2:11 would have won it. But I'm thinking more in terms of time now than of place. I'd almost rather at this stage run a good time than win.

I even think maybe I could have run 30 seconds faster. When I can get up on my toes and sprint in like I did, I'm not in such bad shape. Sometimes, when you're really fit, running faster doesn't hurt as much as going slower. It's like you're braking a little bit when you're running too slow. It's not natural.

I really felt good coming in. It's funny, I've developed something like a kick in the marathon. I've always finished strong. In the three years I've run at Boston, I bet I've passed 20-25 guys from the top of Heartbreak on in. And I've never been passed myself.

The last straightaway goes for about 2-3 miles, and I remember looking down at the ground and seeing this paper blowing by me. And it was just kind of psychological uplift. I thought, God, I got the wind and everything going for me.

I think Hill's 2:10 into the wind has to stand as the best record ever. I'd say that the wind at Boston was worth at least a couple of minutes.

It was in the back of my mind all the way that Rodgers might fade. He dropped in 1973, and last year I caught him at about 23 miles. He was just barely running. He had led for a while then, too, but I guess this was just his year to go out fast and stay there.

Both Fleming and myself let him go, and I have no regrets about that. You're already running five-minute miles,

PAAVO NURMI MARATHON

AUGUST 9, 1975

8:00 A.M.

UPSON TO HURLEY, WIS.

IRON COUNTY SCENIC ROUTE

A.A.U. CERTIFIED COURSE

TRAFFIC CONTROL, GATORADE,

MEDICAL AID, SPLITS CALLED,

UPSON *
REFRESHERS AT FINISH

CERTIFICATES TO ALL PARTICIPANTS

T SHIRTS TO ALL FINISHERS

AGE GROUP AWARDS

FOR INFORMATION CONTACT:

HURLEY CHAMBER OF COMMERCE

HURLEY, WIS. 54534

AC715-561-4334

OR

LARRY AND JUDY KRANKKALA

CO-CHAIRMEN

IRON BELT, WIS. 54536

AC715-561-2615



and you can't go too much faster without the risk of completely blowing up. I just assumed that some of the people in front of me were going to have to slow down. And most of them did.

* * *

It was just a great feeling knowing that Americans were running 1-2-3. It was just something really unusual and I thought they'd make a bigger thing out of it in the newspapers. That hasn't been done since 1942, and I really think it was an exceptional field this year. It was probably the best field ever at Boston.

* * *

Relatively speaking, I was never in any serious trouble at Boston. My feet got hot at 10 miles and I was a little worried what they were going to feel like at 20, but they never seemed to get any worse.

In the later stages, of course, you've got so much else on your mind. It wasn't until after I finished and started walking that I really noticed my burning feet. You get pretty punchy out there the last few miles, and don't really feel the pain. I think all the excitement does that to you.

* * *

Some of my best races have been the easiest. That seems to happen when you really get into good shape. When you're fit, you can run fast and not feel it. The races where I've hurt the most have been the slower ones where I haven't quite been in condition.

* * *

I felt in really good shape this year, and thought if conditions were the same as the year before, I might be capable of a 2:14. All my races and workouts indicated that I had more speed, and I was pretty confident of running as well or better.

* * *

I like to get in one tough workout a week—usually on the track. A typical session would be, for instance, 6-8 times a mile in about 4:50. If I'm pointing for a shorter race, maybe I'd do 8 x 880 in 2:15.

I also do a hill workout that consists of 4 x 880 uphill and 4 x 880 *hard* downhill. I really push the downhill, especially before Boston. You can make up a lot of ground in the last few miles if you can "smash" going down the hills. Ron Daws has emphasized downhill running to me, and it's really paid off.

He has also convinced me that 30-milers are necessary—particularly a month prior to a major marathon. They sound gruesome, but are usually quite enjoyable.

The remainder of mileage is not very remarkable, say, 6:30 pace at varying distances.

* * *

I have the time and energy to run a lot more, but I'm not so sure I'd want to. One-hundred miles is really a top week for me, and I hardly ever run twice a day. I'm not absolutely convinced I'd be any better by doing that. Right now, I feel fresh almost all the time, and I like it. It's funny, but when you get really fit you just don't have the bad days. It's all good stuff.

* * *

I get the same minor "nuisance" injuries as everyone else, but I seem to know when to back off a little. Also, I think taking Mondays and Fridays off (well, five or six miles *easy*) seems to help me recover and feel fresher.

* * *

I really have this thing about running every day. Right before Boston, like the day before, I want to go out and run about 10 times. Or, I'll have a big meal and get to worrying that it's sticking to me, that I'm getting fat and out of shape because I can't run.

* * *

I made the mistake in the past of quitting and then having to suffer to get back into condition. I don't want to go through that again.

I didn't run for two years, but I really think now that I needed that layoff. After four years of college, a race every weekend, I was getting tired of it. I don't think I'd be running what I am now if it weren't for that breather.

* * *

Some people don't seem to understand why you don't improve every time you run. And now, after the 2:11, I know it's going to be really tough to maintain that level of performance.

In fact, the 2:16 last year almost looked like a fluke. I couldn't seem to get within five or six minutes of it in any other marathon. I think, though, that I've passed the point where I feel I have to explain to everyone why I didn't run a particularly good time. If you run as hard as you can, that's it.

* * *

I'm definitely thinking about the Pan-Am trials this year, and the Olympic Trials next. Right now, I'm sort of wondering exactly how good I am, or could be. It's really tempting to work harder and see what happens, but more and more I'm convinced that I run well when I enjoy it. And overwork isn't something I enjoy. ●

What is

E. R. G.

E.R.G. The letters stand for Electrolyte Replacement with Glucose. And they stand for a lot more, too.

E.R.G. is the first and only athletic drink on the market which actually replaces the vital minerals, salts, and vitamins the body loses through perspiration in vigorous exercise. It comes in dry powder form, ready to mix with water to make a drink that will let you perform your best.

That's what E.R.G. stands for. But you can't really appreciate all it is until you've used it yourself. Give E.R.G. a try today! You'll be glad you did.

Just fill out the order form below for your supply.

ORDER FORM

Please check desired order:

- | | |
|--|-----------------------------------|
| <input type="checkbox"/> Sample (3 pkg.) | \$2.50 |
| <input type="checkbox"/> Box (10 pkg.) | \$7.40 |
| <input type="checkbox"/> Case (24 pkg.) | \$16.55 |
| <input type="checkbox"/> Three Cases (72 pkg.) | \$41.50 |
| <input type="checkbox"/> regular flavor | <input type="checkbox"/> Lemonade |

Each package makes one half gallon of E.R.G. Postage is included in all prices. Total amount enclosed is: \$ _____

Name _____

Address _____

City _____

State _____ Zip _____

Starting Line Sports
Box 8, Mountain View, CA 94040

Running by the Numbers

by Carl Foster and Jack Daniels

Few events in athletics provide a more stringent test of talent, training, planning and sanity than the marathon. Few runners can approach a marathon casually and hope to succeed. Few, if any, marathon races can be considered easy, tactical affairs.

Just as there are few things as satisfying as a well-run marathon, there are few things as punishing as running a marathon without adequate preparation. And this is the problem. How does one know what is "adequate"? Adding to the uncertainty of marathon running, particularly for the novice, is the virtual impossibility of running a controlled time trial a week before the event. So it is simply impossible to directly estimate your fitness before the race.

In response to this uncertainty, a considerable body of folk wisdom has arisen. Readers are doubtless aware of the plethora of theories concerning training, pacing, performance standards, normal performance curves and fudge factors relating to marathon racing.

In the October 1973 *RW* ("What Makes a Marathoner?"), Paul Slovic presented a group of equations for predicting marathon performance from a one-mile race, recent training and experience factors. Since Slovic's equations represent a significant step forward in terms of applying theoretical concepts to the running public, we felt it worthwhile to duplicate his study, test his equations and hopefully improve them.

Running performance may be viewed in terms of a large scale "conceptual model" (Table 1) where various physiological, training, experiential and environmental factors contribute to performance. The relative importance of these factors may be represented by a constant (K). The size of "K" for any particular factor undoubtedly changes in relation to the distance of the race. (For example, anaerobic power is vitally important to the sprinter, of moderate importance to the middle distance runner and of little importance to the marathoner. The value of "K" for anaerobic power would, then, decrease in a regular manner as the distance of an event increased.)

Table 1: Conceptual Model of Performance

Marathon Performance equals ...		
Aerobic power	x	K1
Running efficiency	x	K2
Aerobic power	x	K3
Muscle-fiber type	x	K4
Muscle glycogen content	x	K5
Training volume	x	K6
Training nature (long runs)	x	K7
Training intensity	x	K8
Experience	x	K9
Environmental factors	x	K10
Competitive factors	x	K11

Slovic presented eight equations for predicting performance in the marathon. These equations, based on questionnaire data obtained at the 1973 Trail's End marathon in Oregon, utilized one-mile performance, experience, recent training and physical measurements to predict marathon time.

We felt that the four equations utilizing mile performance (Table 2) had a sound theoretical basis in terms of the conceptual model presented in Table 1.

Table 2: Slovic Equations/Marathon Predictions

1. $FT = .51 (\text{mile}) - 14.3 (\text{prev.}) - .05 (\text{eight}) - 1.22 (\text{long}) + 94.0$
2. $FT = .51 (\text{mile}) - 15.7 (\text{prev.}) - .05 (\text{eight}) - 2.86 (20+) + 75.6$
3. $FT = .51 (\text{mile}) - 14.9 (\text{prev.}) - .27 (\text{max}) - 1.34 (\text{long}) + 95.0$
4. $FT = .51 (\text{mile}) - 16.0 (\text{prev.}) - .31 (\text{max}) - 3.31 (20+) + 80.2$

FT = final marathon time in minutes; mile = fastest mile time in seconds within past year; prev = previous completed marathons (yes = 1, no = 0); eight = miles run during previous eight weeks; long = longest single run during previous eight weeks; 20 = number of runs 20 miles or more during previous eight weeks; max = most miles run in one week, last eight weeks.

"There are few things as punishing as running a marathon without adequate preparation..." (photo below by Stan Pantovic, left by Horst Muller)





Accordingly, we distributed questionnaires at 10 different marathon races (1973 and '74 American National, 1974 Houston, 1974 and '75 White Rock, 1974 Oil Capital, 1974 Kansas Relays, 1974 Rice Festival, 1974 Odessa and 1974 Melbourne). We requested information relating to recent performances at distances of 1-10 miles, recent training and marathon experience.

Slovic's four equations were tested for the 125 runners who returned a one-mile time. Since all four equations yielded similar predictive efficiency, they were pooled. The relationship between the predicted and actual times is presented in Figure A.

The results indicate a time-dependent error, with a mean standard error of 23.4 minutes. Since the results indicate that

Slovic's equations are much better predictors for some time ranges than others, we created a correction factor. This is included in Figure A.

The time dependency of the error in Slovic's equations is easy to understand in light of the performance measure used. Fast milers (consequently fast predicted times) are not necessarily likely to have the right physiological characteristics (particularly muscle-fiber type) for a fast marathon. In a similar fashion, slow milers are likely to be slow partially because of lack of basic speed or anaerobic power, factors of relatively little importance to marathon performance.

We felt that the equations might be more useful if a longer distance could be used in place of the mile. Accordingly, we requested information concerning performances at distances of 1-10 miles. Then we predicted maximal oxygen uptake from the longest distance in this range for which the individual had a time (Table 3).

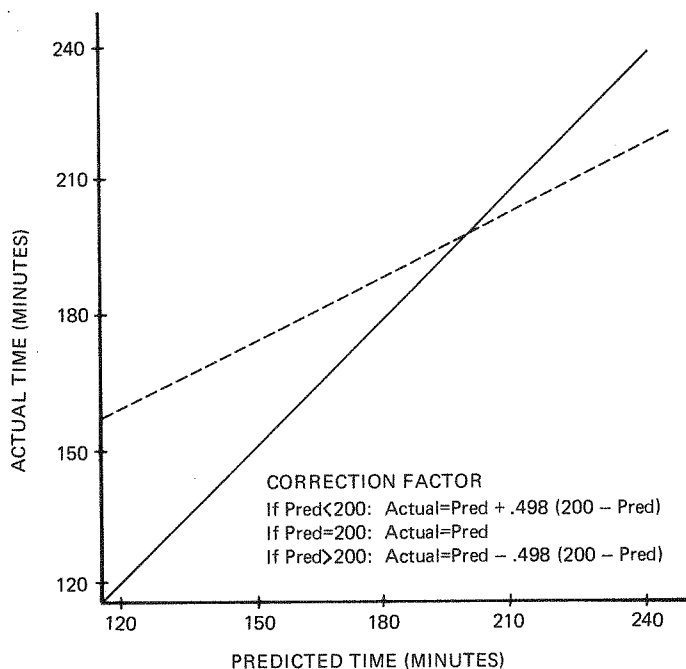


Figure A: Relationship of predicted and actual performances based on Slovic's equations for marathon performance.

Table 3: Estimated Maximal Oxygen Uptake

Max VO ₂	Mile	2-Mile	3-mile	6-mile	10-mile
45.0	6:35	14:10	21:45	45:00	80:00
50.0	5:52	12:41	19:30	40:30	72:00
55.0	5:22	11:35	17:45	37:00	64:30
60.0	4:52	10:36	16:25	34:00	59:30
65.0	4:28	9:47	15:20	32:00	55:00
70.0	4:15	9:17	14:30	29:45	51:45
75.0	4:03	8:49	13:45	28:00	48:30
80.0	3:56	8:27	12:59	26:51	46:00

Choose the longest distance for which you have a time during the past year, and estimate your maximal oxygen uptake (Max VO₂) in milliliters per kilogram per minute. Interpolate between values.

Carl Foster and Jack Daniels both are involved in exercise physiology research at the University of Texas in Austin. Foster is an active runner; Daniels is a former coach and Olympian in the modern pentathlon, and a leading authority on the scientific aspects of running.



They finished in such a rush around three hours at Boston this year that officials couldn't write results fast enough. Runners piled up, waiting to be checked in. Never have so many people been so well prepared for a race, as nearly 900 broke 3:00. (Jeff Johnson photo)

Training information was included in much the same way Slovic had used it. Since Slovic's equations indicated a rather large experience factor, we developed separate equations for novice and experienced marathoners. Usable information was obtained from 176 runners. The revised equations are presented in Table 4.

Next, we attempted to compare different performance groups with respect to predicted maximal oxygen intake, training and pacing variables. We divided the subjects for whom we had intermediate times (125 runners) into seven categories based upon their performance. The results are shown in Table 5.

The relationship between pace during the first 10 and last 6.2 miles is presented in Figure B. It suggests that the "typical" three-hour marathon runner would run the first 10 miles at 6:36 pace (66 minutes) and the last 6.2 miles at 7:20 pace

Table 4: Foster-Daniels Marathon Equations

Novice Marathoners

$$FT = 335.5 - 2.65 (O_2) - .014 (\text{eight}) - 2.38 (\text{long}) + .16 (\text{train})$$

Experienced Marathoners

$$FT = 319.4 - 2.75 (O_2) - .022 (\text{eight}) - 1.0 (\text{long}) + .146 (\text{train})$$

FT = final time; O_2 = estimated maximal oxygen uptake from Table 3; eight = total number of miles run during eight weeks prior to marathon; long = longest single run during eight weeks prior to marathon; train = habitual training pace (seconds per mile) for steady runs of 3-10 miles.

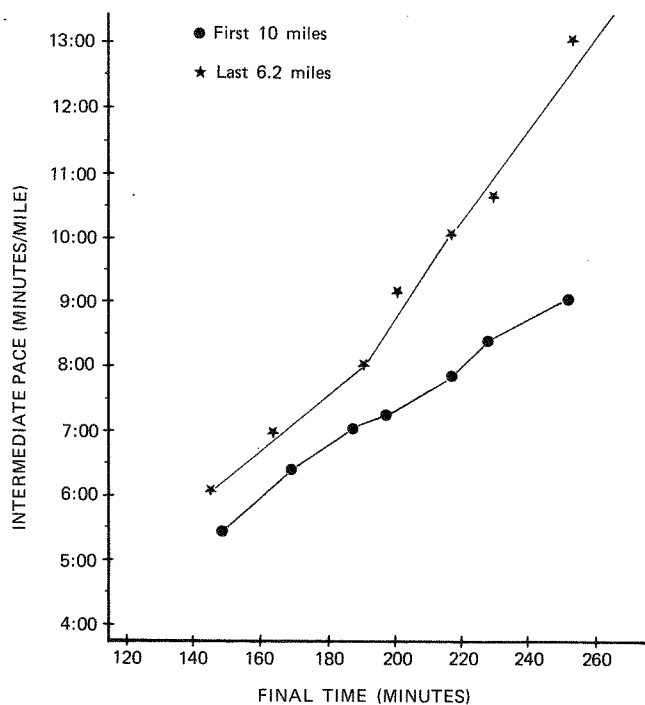


Figure B: Relationship of pace during the first 10 and last 6.2 miles to marathon performance for different groups of runners. Based upon data in Table 5.

Table 5: Averages by Time Category

Group	No.	Time	O ₂	Eight	Long	20+	Train	Early	Late
1	12	2:34	68.0	682	21.3	2.8	6:23	5:44	6:03
2	15	2:51	61.4	529	18.3	1.5	6:44	6:16	6:55
3	24	3:10	56.2	462	19.7	1.6	7:19	7:02	7:39
4	29	3:24	54.2	428	20.4	1.7	7:21	7:14	8:47
5	20	3:36	53.1	405	19.1	2.1	7:21	7:35	9:34
6	16	3:53	49.3	373	19.6	1.1	7:51	7:57	10:19
7	9	4:20	48.0	409	17.6	0.8	8:06	8:14	13:06

Final time is listed in hours and minutes; training pace listed in minutes and seconds, as are "early" (pace during first 10 miles) and "late" (last 6.2 miles) paces per mile.

(45:15). By subtraction, this yields 68:45 for the second 10 miles (6:52 pace). Of course, this does not represent optimum pace, but may realistically reflect the way a given race is run.

Figure B is also interesting because it demonstrates that the slower runners are slower as much because of a great slowdown late in the race as because of an inability to run comfortably at a good early speed. This is especially interesting if one consults the group training figures in Table 5. The slowdown appears to increase in magnitude beyond the third group. The third group averaged about 8.2 miles per day during the eight weeks prior to the race, while the slower groups averaged considerably less mileage.

The 8.2 miles per day is curiously close to the 8.75-mile minimum suggested by Ken Young's "collapse-point" theory ("The Theory of Collapse," Sept. 73 *RW*). This led us to think that perhaps training volume was relatively unimportant once a certain threshold had been reached.

We developed an equation for the individuals who had covered more than 490 miles in training during the eight weeks prior to the race. This equation—Final Time = 387.3 - 3.45

(estimated maximal oxygen uptake)—has essentially the same predictive power as the more complex equations in Table 4. It is far more simple to use and is the one to use if the mileage threshold can be reached.

Since predicted maximal oxygen uptake is the heart of this equation, and since predicted maximal oxygen uptake is based on performances in the 1-10-mile range, the importance of running a number of shorter races leading up to the marathon should be obvious. This phase of the research may be summarized by saying:

1. Try to match Young's collapse-point mileage (about 490 miles in the eight weeks prior to the race).

2. Try to improve your times in the 1-10-mile range in order to predict the highest possible maximal oxygen uptake.

Your marathon time should then be predicted by the equation in the text above. If you cannot cover the requisite mileage, then your marathon time should be predicted by one of the equations in Table 4. You might gain some realistic pacing insights by using your predicted time to find a starting pace from Figure B.

Another variable of interest is the effect of air temperature on performance. It is generally agreed that warm days don't make for fast marathons. However, the quantitative relationship between the temperature and time loss has not been established.

Eight of our runners, all experienced marathoners with fairly stable training and performances, ran both the 1973 American National and the 1974 White Rock marathons. Both courses are reasonably flat and fast. However, Galveston was run in balmy 80-degree temperatures while Dallas was a brisk 45. The results are indicated in Figure C.

The runners showed a consistent slowdown with the warmer temperatures. This seems to amount to about 20 seconds per degree above 45 degrees. This means that a three-hour performer in optimal (45-degree) weather could expect a 10-15-minute time loss at 80 degrees. Much more work needs to be done in this area since the weather on race day dictates many tactical and pacing considerations, as well as the safety of the runner.

We recognize that athletic performance is a highly individual quality. We have seen sub-three-hour marathoners doing 30 miles per week, and individuals doing over 100 miles weekly who collapsed at 15 miles. We have seen 12-minute two-milers breeze past 10-minute two-milers, even though both were doing substantially the same training. We feel, though, that by describing runners in statistical terms, we may help the individual runner to more intelligently plan and execute his or her unique training and racing. ●

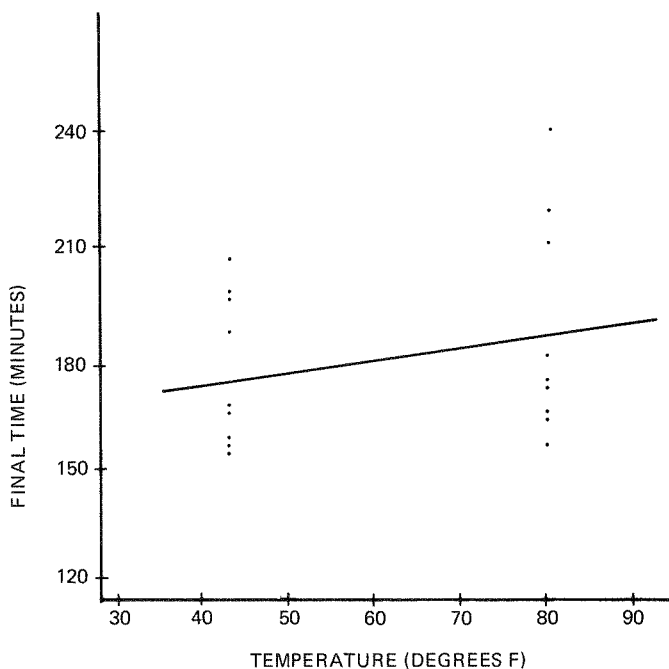


Figure C: Relationship of air temperature to marathon performance. The slowdown is .37min/° above 45°.



Left: Bill Rodgers at the New York City marathon in September 1974. Right: Rodgers at Boston, April 1975. In those few months, he learned the value of stopping for his drinks. (Jeff Johnson photo)

The Pause That Refreshes

by Joe Henderson

Dr. Ernst van Aaken has been my conscience for a long time. I've known about him, quoted him and misquoted him for 15 years, but never met him or understood him until this spring.

I was a high school senior in 1960 when *Track and Field News* offered a new publication—a technical quarterly filled with training advice. It was to be edited by my absentee coach, Fred Wilt, and he was to introduce me to this Dr. van Aaken from Germany.

Prophetically, van Aaken had the first article in the first issue of *Track Technique*. I skimmed the first paragraph of "Speed or Endurance Training?"—which didn't seem to have much to do with me—and hurried into the second, where the doctor started talking numbers and schedules.

Now I'm rereading his introduction: "According to my observations, it is just children who are born long distance runners. Any healthy boy or girl is able to run as much as three miles at a moderate pace. The play of children is nothing more than a long distance run, because in a couple of hours of play they cover many kilometers with several hundred pauses. The play of children is a primal form of interval training."

In 1960, I thought I was no longer a child and should not run like one. My running was no longer playful, and I was into a more serious kind of interval work.

I followed what I imagined to be the teaching of Mihaly Igloi. In the early '60s, his runners were tops and I blindly imitated them. This broke me down. I'd use slow running to recover, then would run myself into another breakdown, again and again. The biggest breakdown came in 1966, when I decided to make all my running "recovery" running.

Dr. van Aaken was there that year, reminding me what had happened: "The continual practicing of high speed, beyond racing speed, is uneconomical and leads to decreases in reserves." Good running, he said, involves no more than staying fresh—never getting really tired or sore. If you do get that way, then take plenty of time to recover.

I didn't make this switch to run faster races, and was amazed to find I ran them anyway. I wasn't faster from my slow training, but simply was fresh for the first time ever.

By 1970, I'd embraced Ernst van Aaken as my personal guru and was

writing about him. I used him to support my LSD ideas, and shut out what I didn't want to hear.

For instance, "The 'classical' interval training program is running long distances with rhythmical changes of pace. It is the method by which Emil Zatopek surprised the world of athletics in 1948. This method was fundamentally new in that Zatopek ran at relatively slow speed, and did 400-meter runs, broken by 200-meter jogging, at sub-racing speed over distances that would have been thought impossible earlier—covering 30 or 50 kilometers (19-31 miles) almost every day . . ."

But I didn't like stopping during a run. I made it a point of pride never to stop. If I drank, it was on the run—running in place at water fountains if necessary. If I hit a red stoplight that couldn't be run because of traffic, I did laps around the lightpost. If my shoelaces came undone, I let them flap.

I didn't run fast but I always ran. I filled every hour with 60 honest minutes of running. I believed that stopping was for out-of-shape people. When you're fit, it only breaks your rhythm and cramps you up.

Ideas like this, if sound, stand up

to the challenges of time and experience. There weren't enough challenges to change my thinking, but enough to make me wonder.

One person who made me wonder was Kenneth Crutchlow, an English adventurer. I talked with Ken in 1971 about a run he'd taken from Los Angeles to San Francisco. I asked him what kind of preparation he'd done.

"Oh," he said, "none at all. I wouldn't do any special training. That would take the sport out of it. The challenge for me was to do this totally unprepared—as any man on the street might."

"Yes, I see," I said. "But this is incredible. How can you run 50 miles a day for 10 straight days? Trained runners can't even do that kind of mileage."

"You want to know my secret? I don't hurry, and I don't run very far at one time—only a mile or so, and then I walk for awhile. Then I run some more and walk again. It takes me the whole bloody day. But I get there."

Ken impressed me, but I rationalized, "His way is only for beginners. For them, rest breaks may be great, but I don't need them. I'm fit. I can run 50 miles straight. Why do I need to stop and walk?"

"And besides that, I don't have all day to run. These pauses would stretch out the run far beyond the hour or two a day I set aside for running."

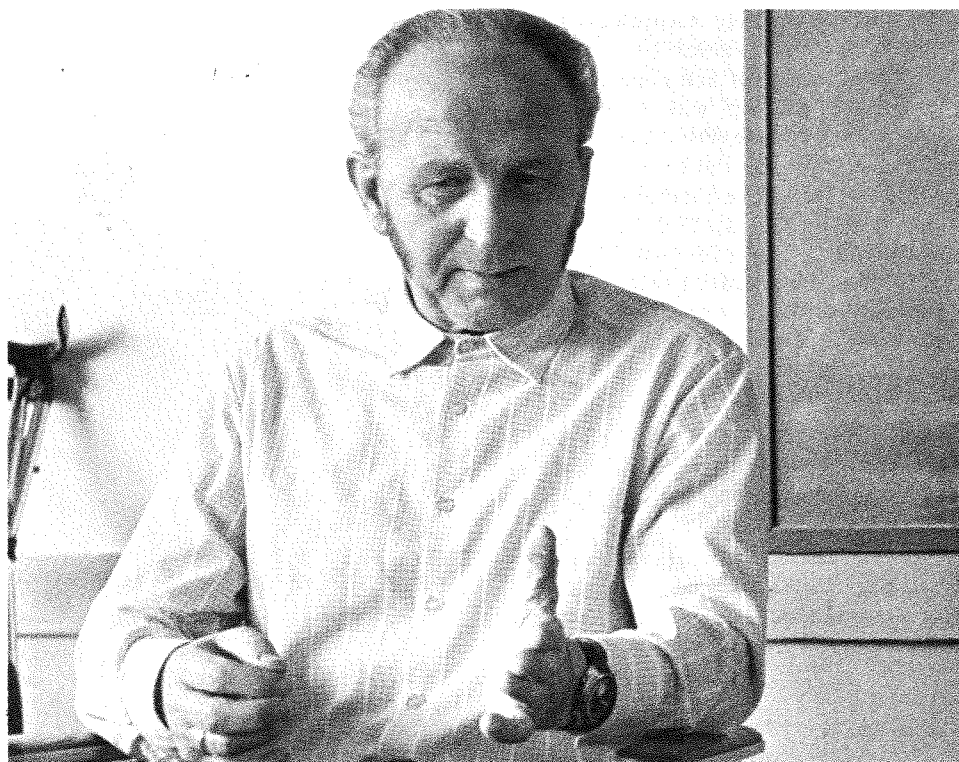
What I was really thinking, though, was that I didn't like the idea of stopping and walking during a run. It embarrassed me. It made me feel weak and less like a runner. I remembered walking as something I did when I was too tired to run any more. It symbolized pain and defeat. But as 1971 moved into 1972, running was increasingly painful and defeating.

Dr. van Aaken warned, "The length of endurance (slow) distances in relation to tempo (fast) distances is between 20:1 and 40:1." That meant don't race more than 5% of the total. I ignored him, ran longer and raced 25% of my miles. This produced chronic exhaustion which set off a slow, crumbling breakdown.

I couldn't run 50 straight miles any more, or after awhile 26 miles, then 10, or finally anything until a surgeon fixed the self-inflicted damage.

After the cast came off and the stitches came out, I asked the surgeon, "When can I run again?"

He said, "Today. There's no reason to wait. The sooner you start, the sooner you'll see what you can and can't do. Just don't go very far. Go very slow-



Dr. Ernst van Aaken wrote in 1960, "The play of children is nothing more than a long distance run with several hundred pauses." (OMPhoto)

ly, and stop if you have any unusual pain."

I couldn't do much. That day, I set aside a half-hour and planned to run as much as I could, walking the rest. I ran only a minute of it. The next day, I ran a little more. Gradually, the amount of running grew and the walking shrunk, until after a few weeks I was running the whole way and thinking, "Great, I don't need the 'intervals' any more."

I again forgot Dr. van Aaken's advice: "Run every day, slowly and with walking breaks." I thought it applied only to cripples.

I took several precautions against crippling myself again. One was stretching exercises. My calves had been so tight they were pulling themselves and their tendons apart. I doubled my flexibility but still hurt myself now and then.

I had muscle flexibility, but still lacked a more important type. I still ran by a rigid schedule and wouldn't let myself veer off of it by more than a minute or two a day, always running every step of the way. To do less was unthinkable.

The only time I've ever done any good thinking is when I'm hurt, can't run and am forced to face the question, "What went wrong?" I wasn't hurt last December when I edited the Ernst van Aaken interview for *Runner's World*. So I missed his point again when he said more about Emil Zatopek—the only

triple winner in Olympic distance running (5000, 10,000 and marathon in 1952.)

"He told me his main training was 60-100 x 400 meters, each in 1:36 (about 6 ½-minute mile pace). He never stopped. He just interrupted the runs with 200 meters of very slow jogging.

"Then everyone misunderstood what Zatopek was doing. For instance, here in Germany they said, 'Okay, we're going to run 200 meters very fast with very short pauses.' Everything in Germany went *kaput*. Performances went down. This type of interval training went like a plague throughout the world."

The same might be said of distance running at an unvaried pace, which grew from misunderstandings (which, admittedly, I have helped spread) of the Ernst van Aaken method. Van Aaken never meant his running to be at a constant jog.

He talked in the interview about Harald Norpoth, his prize subject and a 5000-meter medalist at the Tokyo Olympics. When Norpoth came to him to train, van Aaken said, "I had to teach him to run slowly. By 'slowly,' I mean 400 meters in two minutes (about eight-minute mile pace). He'd do it 10 times, 4000 meters total, as a start. This would be 350 meters of running, a minute of walking, again slowly 350 meters . . ."

The interviewer, Tom Sturak,

broke in. "But surely Norpoth did more than 10 times 400 meters!"

Of course, van Aaken said. He followed that "warmup" with 2000 meters (1¼ miles) a minute slower than his best pace. "Then he did 10 more slow 400-meter runs, then another 2000, and on and on until he ran 17 or 18 kilometers (10-11 miles) that way."

The doctor added a refrain I'd been reading for 15 years but not remembering: "Even the little children in Waldniel run that way."

It's ironic that I only started paying attention to his ideas about playful intervals after I'd broken myself down with interval running. One kind hurt me, another promised a cure.

This latest hurting came in a bike-run relay. It was essentially a long interval workout: 2-3 minutes on the road, running hard; 2-3 minutes on the bike, recovering, when my partner ran. We did this for 12 miles—a dozen fast half-miles apiece.

My calf pulled on the sixth one, but I pushed on to the end. I could barely take a normal running step the next day, or the next two weeks.

About that time, Bill Rodgers won the Boston marathon in record time. And he did it even after stopping once to tie his shoe, several more times for drinks.

At first, I thought, "Gee, look how much faster he would have gone if he hadn't taken those breaks. He would have been close to the world record."

He lost time with the stops, and lost some more by breaking rhythm. That's hard to pick up again after it's lost late in a race. You stiffen up almost as soon as you break stride. Or do you? By week's end, I would have my doubts.

The Friday after Boston, I was approaching normalcy again. I saw a neighbor running a block ahead that morning, wanted to say hi to him and made an interval-like spurt to catch up. A knifing pain cut at the calf muscle. I stopped and walked home, dejected, knowing I'd set myself back another 2-3 weeks with that dumb move.

Dr. van Aaken came to visit that day. This was the first time I'd met the man I had been reading and writing about for almost as long as I'd been running.

He had watched the Boston marathon on Monday, and was now giving a series of talks on the West Coast. Joan Ulyot, a doctor-runner from San Francisco, had arranged the tour and was translating from German to English.

Dr. van Aaken ran through lots of topics in his talks. Interval running took



Kenneth Crutchlow (seated) ran interval-style with Pax Beale (left) from Death Valley to Mt. Whitney. (Terry Schmidt photo)

up five minutes in more than eight hours of conversation and lectures.

He said what he'd been saying for years: "Run as a child runs. Run playfully, for 10 kilometers a day, without pain or fatigue. The plan is the same for everyone from competing athletes to men recovering from heart attacks. Only the pace and the amount of walking varies.

Van Aaken said his own children at play used "classical interval training." He told of following one boy when he was six years old. In two hours, he ran a total of about 10 kilometers—with some 400 pauses. And after all of this, he showed no fatigue. He could have gone on all day.

Then the doctor moved on to the next topic. I would have missed the point one more time if I hadn't tried running long the next morning. It was the regular Saturday group run. I started jabbering away and forgot the sore calf as we headed up a long, gradual hill.

The calf wouldn't let me ignore it for long, though. Two miles out, another knife stabbed into it—worse than the one on Friday. I stopped and waved the others on, then swore and kicked at the ground for having to quit this run which is the highlight of every week.

My mood was ugly as I turned to walk back to the college parking lot. I brooded as I shuffled along. Then a half-mile down the road I realized, "Hey, that calf doesn't hurt so much now." I'll run for a minute and see what happens."

I ran and the muscle tightened, threatening to spasm again. I walked and it loosened, then ran again, a little farther than before, and walked and ran some more.

Back at the cars, I remembered I had to wait another two hours for my ride. "What the heck," I said. "I might as well be doing something with the time. If nothing else, I can walk."

I ended up going the full two hours, running about five minutes at a time and walking one.

All the way, long-buried nuggets of information were surfacing. I finally was seeing what van Aaken meant by intervals . . . what "running playfully" is . . . how Ken Crutchlow was able to run 50 miles a day on no training . . . the reason I'd recovered so quickly from surgery . . . why Bill Rodgers' many stops at Boston last Monday may not have been so wrong.

My leg felt better after the two hours of run-walking than when I'd started. I couldn't have gone 2½ miles with steady running, but this way I'd gone five times that far.

Three days of "intervals" later, the calf soreness was completely gone. No injury had ever healed this fast. I could run all the way again, but wasn't so sure I wanted to do it.

Short walking breaks along the way were so refreshing, I didn't feel like giving them up completely. And the running was enough faster because of the pauses that it easily made up for the few "lost" minutes. Even if the run took a few extra minutes, the time was worth taking if the pauses broke the steady upward spiral of fatigue, muscle tightness and pain.

And to think I needed only 15 years to reach the same conclusion Ernst van Aaken had written in 1960: if you want to go long, you have to stop once in a while. ●

John Turner was a three-time loser when he turned to running.

REHABILITATION OF A CARDIAC CRIPPLE

by William Marley

John Turner, then 35, woke up with a start in the middle of the night on May 14, 1963, gasping and coughing. These symptoms passed after five minutes.

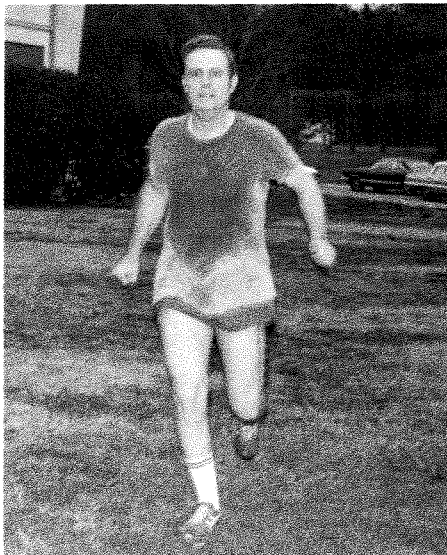
Ten days later, John was playing softball. He had been playing regularly that summer and, although he had not conditioned himself with vigorous cardio-respiratory exercise, felt "like a million dollars." At approximately 9:30 p.m., John attempted to field a line drive hit directly over his head. Knife-like pains cut through his chest. His arms "went dead" and he experienced a euphoric, "floating" feeling. He threw the next batter out and the game ended with a pop-up.

As John left the field, he experienced leg cramps, became weak, nauseous, began to sweat profusely and passed out. He was rushed to the hospital where an electrocardiogram showed that a heart attack (coronary thrombosis) had occurred. John was placed under intensive care and listed in "guarded" condition. During the first week of his hospitalization, John suffered another heart attack. He was flat on his back, semi-conscious. Oxygen therapy was necessary.

John left the hospital in late June, and in September returned to work. He did not exercise outside his regular daily routine but watched his diet in order to guard against overweight. A 1½-pack-a-day smoker since the age of 17, he had stopped several months before the first attack.

The following spring, John was camping with his family when he suffered yet another attack. He was hospitalized for 18 days.

John returned to work in July 1964, and that September was promoted to a job which required a great deal of walking. He had difficulty coping with the physical demands of this new position and would sit on the curb when there was no other place to rest. He be-



Ex-heart patient John Turner

came depressed, scared to death of over-exerting himself to the point of having another heart attack.

In spite of his problems, John continued working, walking and improving his ability to cope with the demands of his job. Though he didn't realize it then, John now believes that he was beginning to experience an improved cardio-respiratory capacity due to his "training." He figures that during the next six years he walked five miles a day, five days a week. During this time, a significant change had occurred in John's lifestyle. He had enrolled in the North Carolina State University adult fitness class in September 1966, on the advice of his doctor.

Dr. William Marley is with the physical education department at North Carolina State University in Raleigh. He wishes to acknowledge the assistance given by Drs. William E. Smith, Ardell C. Linnerud, Chauncey Royster, Albert Chasson and William Sonner in the preparation of this article.

The class includes three formal exercise sessions per week for nine months every year. These sessions, conducted by trained instructors, include calisthenics, rope skipping and bench stepping. In addition, all students run for at least 20 minutes, at least twice weekly and usually three or more times. They exercise on an individual basis during summer months.

The following data are obtained in the fall, winter and spring of each year: height, weight, bodyfat by skinfolds, 1½-mile run time, bent-knee sit-ups, chinups, lateral jump over 15-inch rope, resting pulse, pulse after three-minute modified Harvard Step Test on a 17-inch bench, serum cholesterol and serum uric acid.

John became an avid reader of literature concerned with cardiovascular disease. He also obtained films from the North Carolina Public Health library where his wife is librarian. This information inspired him in his efforts to overcome his heart condition.

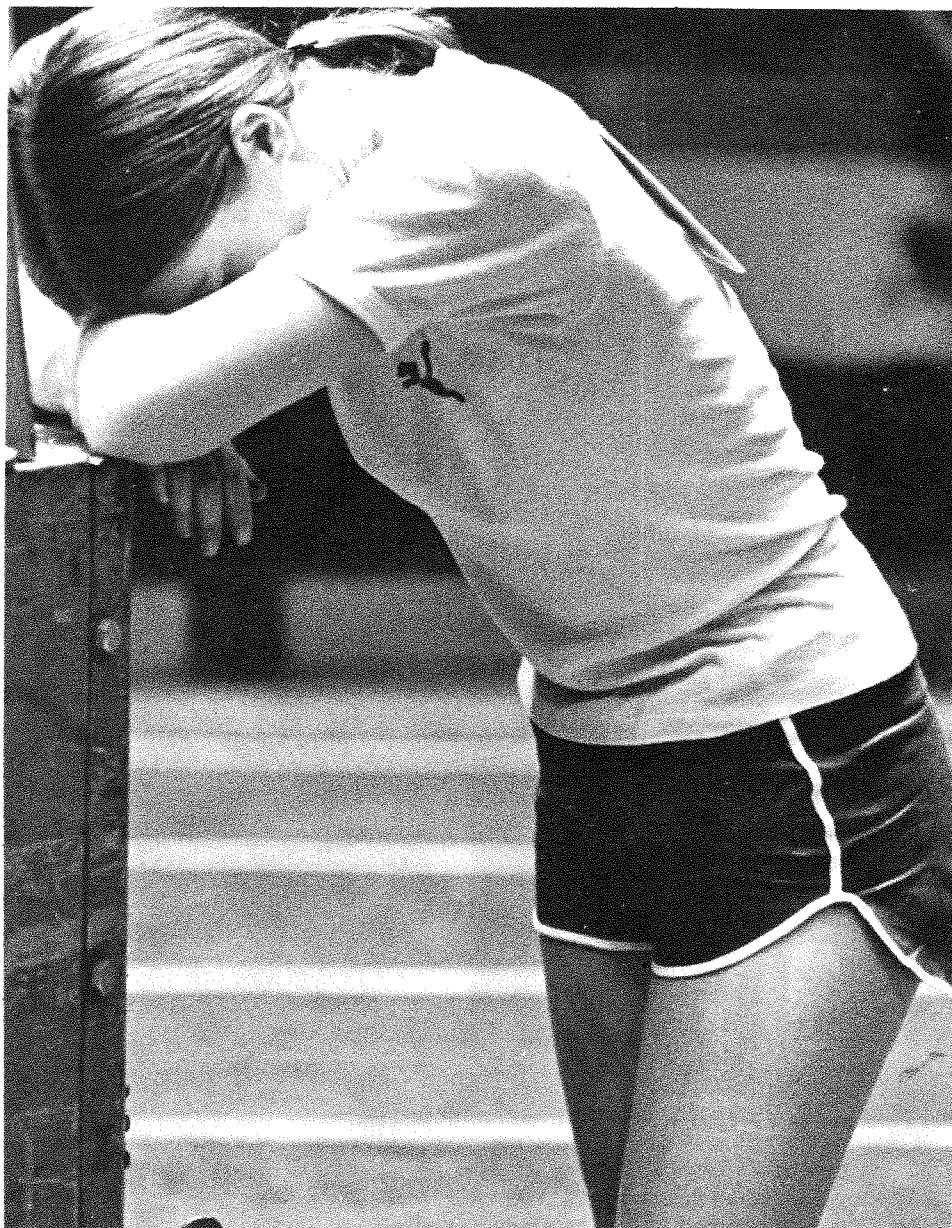
John experienced great difficulty in making the transition from walking to jogging. His first run was 25 yards. He quit running for three weeks because of his fear of another heart attack. Then he thought, "If I can walk five miles, why can't I run at least one mile?"

The examples of others his age and older working out and enjoying themselves were also inspiring. Consequently, John began jogging at a regulated pace and improved steadily. In addition to his running and calisthenic workout with the fitness class, and unknown to his family and doctor, he measured off a track and ran secretly in his backyard. John feels this extra training helped him "turn the corner."

John ran his first complete mile in January 1967, in 7:43. In the spring of 1968, John completed his first four-mile while running in the annual fitness class run. He finished last, but he finished. His longest run has been six miles.

John now runs at least four days weekly, year-round, in addition to participating in the formal exercise routine of the fitness class. He usually runs at least three miles on Monday, Wednesday and Friday, and at least five miles on Sunday—averaging eight-minute mile pace.

John Turner is now 47. Twelve years have elapsed since his last heart attack. His business is thriving and he is enjoying life. He views his future with optimism and his prognosis is excellent. A rehabilitation such as this is a remarkable feat and should be an inspiration to many. ●



The race is over. You feel dizzy, light-headed, not quite here. You need support. What is happening? (Steve Sutton/Duomo photo)

WHAT RUNNING DOES TO THE HEAD

by Richard Powell, Ph.D.

Does the world seem “fuzzy” to you after a long hard run? What are the causes of this “cognitive indisposition,” as physiologists call it? What are the long-term effects of chronic stressful running on the brain? As a runner myself, the effects of exercise stress upon the brain environment have always been of interest, and frankly, some concern to me.

Runners are all quite anxious to point to the “healthful” effects of regular training. In fact, most physical training

experiments have been showing positive effects on the nervous system through faster reactions, improved visual perception, increased metabolism, and vigorous heart contractions and electrocardiograph changes reflecting improved nervous transmission throughout the heart muscle. All

Dr. Richard Powell is an assistant professor in the department of health, physical education and recreation at the University of Maine/Presque Isle.

of this probably indicates an activated sympathetic nervous system which typically accompanies endurance training. It's tempting to suggest that brain function is similarly enhanced.

But what of this light-headedness following a hard workout or race? Exercise physiologists have attempted to explain this phenomenon on the basis of a temporary cerebral hypoxic condition (lack of oxygen to the brain). However, most literature shows that the brain environment is especially adaptable to exercise stress, and even short-term vigorous exercise seems not to affect brain metabolism. In fact, moderate endurance training seems to have just the opposite effect—a slightly increased brain metabolism and accelerated electrocortical activity—and these findings agree with the well-known feeling of “clearing the mind” through running. I personally feel that my most “alert” time of the day seems to be a few hours *after* a moderate workout.

I suspect that moderate endurance training helps to improve the nutritive state of the body, as evidenced by the higher basal metabolism found among runners. More than likely, with persistent exercise there is an “overshoot” of ATP buildup (the basic chemical energy source in the body), and this improves the metabolism of all cells—including nerve cells. Certainly, this chemical reserve relates to greater endurance capacity as well.

There is also reason to believe that regular training has a protective effect upon the brain, especially in terms of age-related patterns of senility. It has been shown that comparably aged adult runners show less “cognitive dysfunction” with age than do their sedentary counterparts.

Nevertheless, I still become concerned about that feeling of being “not quite here” after a long, hard run. I think the key to explaining this phenomenon lies in the length and severity of a run. Most researchers simply can't simulate training conditions on a laboratory treadmill. And while moderate training seems to have positive stimulatory effects on the brain, severe fatigue seems to temporarily depress brain activity.

In fact, experimental animal research has shown that severe, fatiguing exercise does depress brain metabolism. This seems to be due to changes in the brain chemistry accompanying the exercise, brought about by minor reductions

of oxygen to the brain. Oddly, these symptoms of cognitive dysfunction typically don't surface until after training is long and hard. There doesn't seem to be any sure way of avoiding this light-headedness if we train long and hard.

Discovery of these research findings bothered me. Was hard training having a progressively bad effect on my brain—even though moderate training, without accompanying excessive fatigue, might paradoxically be providing a desirable effect? I wanted to determine if there was any detrimental effect to this light-headedness, particularly if I experienced the condition with hard training.

A kind of reduced brain metabolism, similar to that in fatiguing running, has been found by medical researchers to result in a more profound way from surgical complications interrupting normal cerebral blood flow. However, no apparent ill effects have been noted, even with an interruption of blood (and oxygen) to the brain for periods of up to one minute. The more subtle changes in the brain metabolism following strenuous exercise don't even approach these conditions.

In fact, only reductions in the rate of brain metabolism are found following prolonged severe exercise. These reductions are likely triggered by a minor hypoxic (oxygen-shortage) condition which our body adjusts to through a protective mechanism of nature. This protection is brought about by adrenocortical hormone secretions after exercise stress.

The more severe the exercise stress, the higher the release of these secretions into the blood. Hypoxia has been shown to trigger corticosteroid production, which stimulates brain metabolism. It may be that corticosteroid release in the body lags behind the mild hypoxic condition brought about by severe exercise. And it is likely that the light-headed condition is quickly brought under control by corticosteroid release which stimulates brain respiration once running is terminated. An important outcome of this process is that elevated levels of corticosteroids persist for several hours following exercise. After recuperation, a more "active" brain metabolism likely results from the hormone influence. This seems to agree with a subjective sense of feeling "sharper" several hours following a vigorous workout.

Running has many salutary effects, and it seems likely that the mind is affected in ways similar to the body in response to regular running. The age-old axiom of a sound mind in a sound body seems to be confirmed through empirical study as well as common sense.

REFERENCES

- Cureton, T.K.—"Improvement of Psychological States by Means of Exercise-Fitness Programs," *Journal of the Assoc. for Phys. and Ment. Rehab.*, 17:14-18, 1963.
- Cureton, T.K.—"Physical Training Helps to Regulate and Improve Glandular Functions: A Review of Research," *Research Quarterly*, 30:266-284, 1959.
- Kleinerman, J., and Sanatta, S.—"Effect of Mild Steady State Exercise on Cerebral and General Hemodynamics of Normal Untrained Subjects," *Journal of Clinical Investigation*, 34:945-6, 1955.
- Lambertsen, C.J.—"Respiratory and Cerebral Circulatory Control During Exercise at .21 and 2.0 Atmospheres Inspired pO₂," *Journal of Applied Physiology*, 14:966-982, 1959.
- Powell, R. and Pohndorf, R.—"Comparison of Adult Exercisers and Nonexercisers on Fluid

- Intelligence and selected Physiological Variables," *Research Quarterly*, 42:70-77, 1971.
- Romanowski, W. and Strazynski, W.—"Effect of Exercise on the Tissue Respiration of the Brain, Skeletal Muscle, Heart, Liver, Kidneys and Spleen," *Arbeitsphysiol.*, 25:329-338, 1968.
- Roosevelt, T.S., Wennhold, A., and Nelson, D.H.—"Adrenal Corticosteroid Effects Upon Rat Brain Mitochondrial Metabolism," *Endocrinology*, 93:619-625, 1973.
- Scheinberg, P., L.I. Blackburn, M. Rich, and M. Saslaw—"Effects of Vigorous Physical Exercise on Cerebral Circulation and Metabolism," *American Journal of Medicine*, 16:549, 1954.
- Simonson, E. Enzer, N. and Bentou, R.—"The Influence of Muscular Work and Fatigue on the State of the Central Nervous System," *Journal Lab. Clin. Med.*, 28:1555-1567, 1943. ●

slip a pair on— celebrate— run for fun



**And we'll
wrap you in
total comfort!**

Write for free Point Four poster.
point 4our ltd.
 4050 Talmadge Road
 Toledo, Ohio 43623
 (419) 472-6982

University Spt. Gds. Mobile, Ala.	Rough Rider Bismarck, N.D.	T & G Sports Binghamton, N.Y.
Bill Lapes Spt. Gds. Tucson, Az.	Wolf's Rookville, N.Y.	Woody's Spt. Gds. Hacienda Heights, Ca.
Sports World Lexington, Ky. & Erie, Pa.	Sauk Valley Brooklyn, Mi.	Athlete's Foot Bethesda, Md. & Merrillsville, Ind.



The "Mini" Marathon and How it Grew

by Kathrine Switzer

Central Park, New York City. On a Saturday afternoon stroll (or run) here, you can see the whole colorful array: the St. Laurent-swathed young woman strolling with her tweedy mate, followed by the deluxe pram and starched English Nanny; the poor slum kids trying to cop a free ride on the carousel; the college "preppies" playing frisbee; the bearded poets lecturing the hippie flocks; the wandering groups of steel-drum bands; the poised equestrians putting their beautiful horses through their paces; the dignified elderly bowling on the green and the

poor elderly trying to keep warm in the afternoon sun; the bicycle riders, the bicycle racers, the bicycle police and the bicycle thieves. Every look, every smell in every language is here.

And of course, we're here—the walkers, the runners, the racers. Only the racers in this strange city of native indifference attract the slightest notice from these Saturday hordes. They may turn their heads as the heaving numbered chests flicker by, but it's somehow difficult to be casual when the entire race contingent is female, some 310 strong

and bent on making the 10,000-meter loop of the park!

The race, the fourth annual "Mini-Marathon," is nothing new to New York. It is, in fact, practically an institution. Yet when it happens, the spectators, press and onlookers regard the event as a phenomenon. At other times, the occasional woman running may receive no more than a mugger's appraisal. But 310 determined faces sweeping noiselessly through the mid-day crowds stops everyone cold.

To those of us involved in the sport, of course, it is no phenomenon. In

Soon-to-be-winner of the biggest road race in women's history, Charlotte Lettis (No. 6), lines up for the race in Central Park. (Missy Warfield photo) Writer Kathrine Switzer (not pictured) finished 17th with her best 10-kilometer time.

1973, I wrote an article for *RW* ("Leaving the Sideshow Era," Aug. 73), detailing the second Mini, saying that women's distance running, on the basis of what that race (and subsequently others) showed, had come of age.

In its four-year history, the Mini has shown steady growth both in overall numbers (from 75 to 310) and in age-group participation (from ages 8-45 the first year to a 4-61 now). But perhaps the most dramatic improvement has been achieved in general levels of running performance in this year's race. For instance, in 1972, only the winner bettered a 6:15 mile pace. In '73, only the winner and the second-place woman did. And in '74, only the first three places did. And then this year—6:15 per mile pace was only good enough for 17th place!

So what Central Park has seen is not only an encapsulation of the evolution of women's running, but *quality* women's distance running. The duel this year between Jacki Hansen and eventual winner Charlotte Lettis, for instance, was some of the finest competitive distance running anywhere.

The 28 women who ran faster than a 6:30 mile pace this year are proving that a lot of women are doing a lot of training nowadays.

The Mini-marathon is something more than a showcase for a performance evolution, though. I think it may tell us a most interesting psychological fact about some women in running—and perhaps some women in athletics in general. That is, an event, or program, exclusively for women, encouraging their humblest beginning efforts and touting their newfound expertise, may be the real secret to creating athletic commitments for them.

Many women running in the Mini are "closet runners"—having never competed before in an organized competition. Some of them told me they gathered courage, if you will, to run among other women where they felt intimidated to get into a mixed race. From this beginning, many of them went on from the Mini to

then run without embarrassment among men.

Even as an early instigator of coed competition, this was no revelation to me. Women's running would have been growing a lot earlier if more women were doing it, and if they found acceptance in the existence of special events for them. The sad point is, however, that many women have and many more women will miss the boat in athletics because they have no forum for competition. There is, after all, only one Mini-marathon right now in US road running.

But the bright spot is that at least one race does exist, and it does thrive, and it will give rise to more events and acceptances and create more interest for others.

Part of the thriving, it will surprise no one in this impoverished world of amateur athletics to learn, is a hefty sponsor. In the case of this year's Mini, even though the program read "Sponsored by Neimand Brothers" it was Arno Neimand (a New York runner and the firm's president) who decided to personally up the ante so that better geographic representation could be added to what already was shaping up as a quality race.

Neimand's contributions allowed for the expenses of such stellar attractions as Jacki Hansen, Brenda Webb and Charlotte Lettis. Additionally, in a return gesture of friendship which it could previously not afford, the Road Runners Club invited three members of the Puerto Rico Athletic Federation, which has hosted US women in the Guayanilla 10-kilometer run for the past three years.

Central Park has not seen the evolution of everything, however. And I hope it never does see the evolution of the hardnosed, win-at-all-costs woman competitor. More than ever, women in the Mini have shown that women in general are probably more truly sports-minded than "win-minded." Said Lettis effusively after the race, "Oh, it was so fabulous! I felt so unbelievable and strong running stride for stride with Jacki. I wondered at which point one of us would make the break and go on to win, and when that moment came (not until the six-mile point), what I really wanted to do was to hold hands and finish in a tie."

Without having heard Lettis, Hansen happily related that she felt she had a super race, was pleased with her time and felt it was a great competition on both runners' parts. "At six miles," she said, "when we both were together and neither of us knew what the other had left it just didn't matter. I thought briefly that we should tie. But then, how do you ask your rival if she wants to tie? It's a pretty strange situation!"

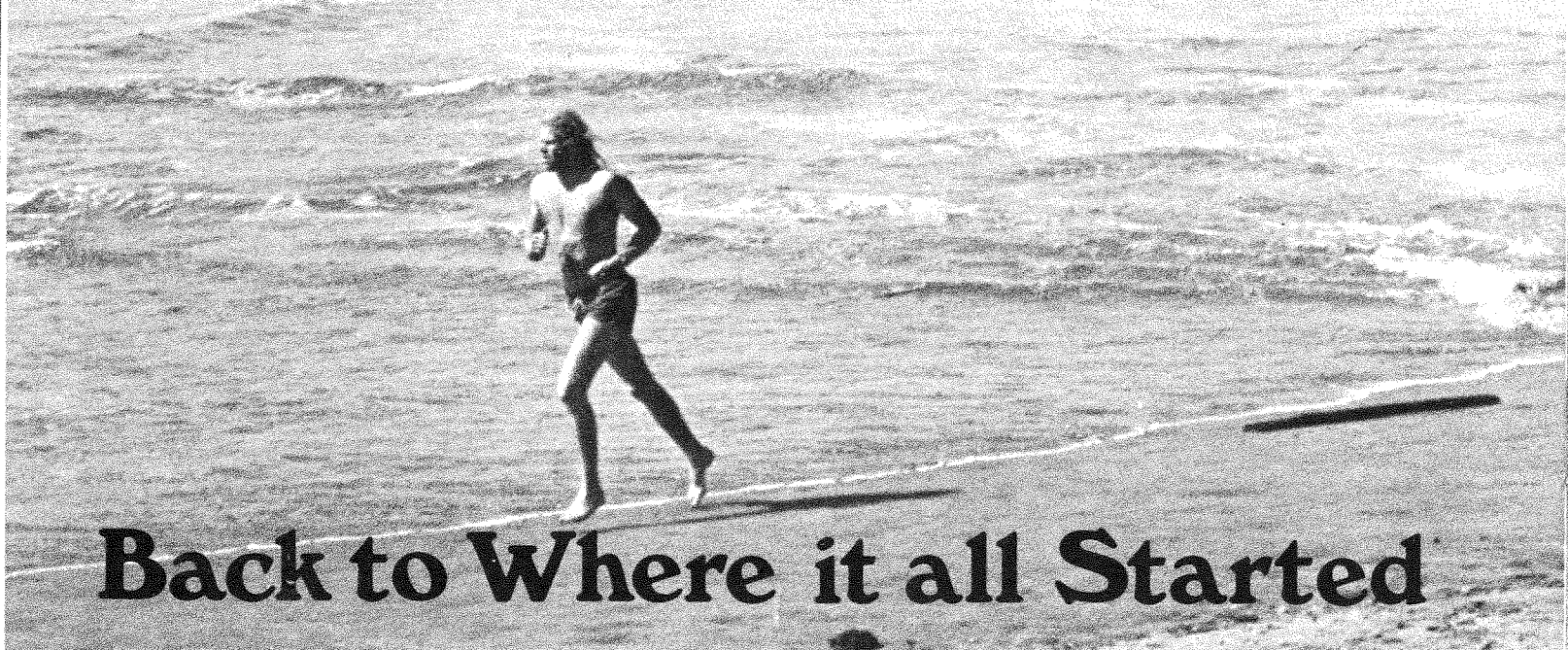
Perhaps I'm overrating it at this point, but it seems that most of the women in this and all previous Minis seemed to have a general overall appreciation for the race organization that one finds lacking among "seasoned" competitors. For instance, 300 of the 310 pre-entered runners showed up for their numbers, several teams exchanged rah-rah cheers before the race, and runners with higher numbers motioned for lower-numbered runners to get ahead of them in the starting line. Seconds before the starting gun, Lettis, Hansen, Merrie Cushing and I stood on the starting line together, amiably exchanging running tips.

But don't let it be said that these women are not competitive! They are fiercely so. It's just that winning isn't necessarily the be-all, end-all. The Kettering Striders flashed to a brilliant team finish (3rd, 4th and 8th), but the Scarsdale Legs (no finishers in the first 50) were just as thrilled to perform and participate. A 61-year-old woman, who finished last year in about an hour and a half, came back this year to do exactly the same thing. And everyone was on hand to lustily cheer her in. She bore a grin a mile wide . . .

We were, in brief, all there because we love to run. We had come together, were organized, promoted and given the special opportunity. One funny incident sums up our unified feeling: After the race, being 310-strong and feeling wonderful in the flush of our self-realization, we were approached by some guy trying to push a petition on us that stated that women felt degraded by the use of the word "Mini" in the race title. He was summarily ignored—another weirdo in the park.

The love of the sport—and this particular event—extended to race organizers (The Road Runners Club of New York) and gave them the dedication to execute a fine show. And it wasn't just the superior efforts of the women behind the scenes, either. The male officials and workers weren't there for their wives and girlfriends. They were there because they know and believed in what the event could do for running everywhere and for everyone. Always calm and matter-of-fact about the literally hundreds of events each year that they conduct, the RRC really cranks up a lot of enthusiasm for the Mini.

It was a total-involvement race—from the very fleet front-runners to the plodding joggers, from the three-woman teams to the three-hundred woman effort. It, like all the other Minis before it, marked another new milestone in women's athletics and gave Central Park yet another dimension. ●



Back to Where it all Started

by John Byrum

My poor Pumas.

According to the shoe salesman, God himself designed these sleek, nylon and suede slippers to have but one mission in life—the acceleration of tender feet across asphalt, concrete, cinders, dirt, boards and bricks. Unfortunately, since I rarely set foot on such rigid running surfaces, the 9190's my wife bought me two Christmases ago almost never get off the closet shelf.

For depriving my shoes of their divine purpose, I suppose I've incurred the wrath of not only the Lord, but also of glue gun entrepreneurs, retreading businesses and other enterprising athletic cobblers trying to make bucks by repairing broken-down shoes.

I don't expect forgiveness from the merchants, but surely the Great Sprinter in the Sky will absolve me of this sinful spurning of my shoes. For you see, where I put in my miléage I don't need my Pumas. My bare feet work better.

I'm talking about the beach, of course. The millions of miles of tidal shoreline that separate land and sea. The thin strip of sand where Derek Clayton's ancestors took their first steps. The white apron on which a distant uncle of Filbert Bayi escaped an enemy and assumed history's first oxygen debt. The place I've spent most of my ambulant hours, from early childhood to present, adapting my body to the shifting soil. But what are the consequences, the pleasures and the problems, of running barefoot for so long and so far in the sand?

Glad you asked.

Well, for starters, let me say that

I've yet to be plagued by any of the ailments that are commonly associated with the practice of striking each foot on the ground 5000 times every hour—tendinitis, chondromalacia, shin splints, hamstring pulls, stress fractures, capsule tears and sciatica, to name just a few.

That is not to say I haven't been hurt. My few accidents, however, have been attributable to fate rather than to the mechanics of running. Like cutting my foot on a broken wine bottle or beer can. Happily, though, the odds against such an injury are at least a thousand to one. But to be on the safe side, I keep my tetanus shot up to date, detour around remains of beach parties and, after the Fourth of July, stay away from the shore entirely until high tide has swept the beach clean of fireworks debris.

In spite of these hazards, barefoot is still best. Let your lowermost extremities enjoy the freedom of nakedness. Don't confine them in expensive shoes that not only cause blisters but also wear down rapidly and throw the entire body off balance.

Stick with nature. She'll furnish your perfect fitting callus-cushions for free, guaranteed for the life of your feet. Note the fine print, though, which assures the policy's validity only if you run barefoot on the beach, for there, in contrast to streets and sidewalks, your soles will be pumiced by the sand, washed by the sea, and will stay soft and clean as sterile swaddling cloth.

Speaking of the ocean, it can do more for you than rinse off your feet.

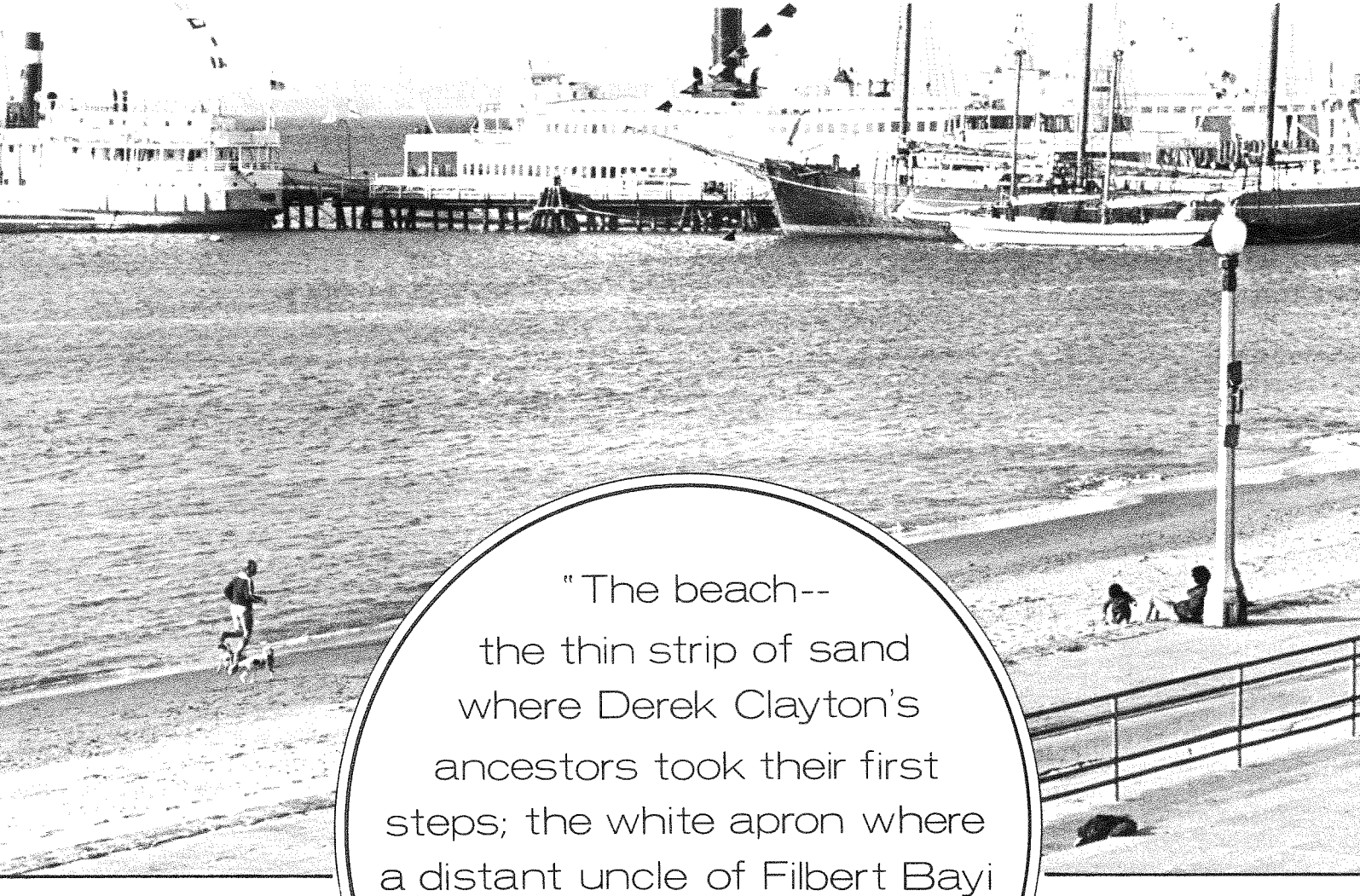
Whenever I run along the shore, for example, I regularly swerve into the shallows and run intervals half-immersed. My grandfather, a breeder of quarter-horses, always swore that thoroughbreds trained in the surf were better racers. I saw that humans can similarly benefit from such a workout, the swirling nature of which seems to soothe and strengthen a lot of subsidiary muscles.

After a while, I plunge through the waves and stroke hard out to sea and back. Not only is swimming a better cardiopulmonary exercise than running for me, but also it promotes flexibility and prevents atrophy of the arms and chest, a condition uncomplementary to bulging calves and thighs.

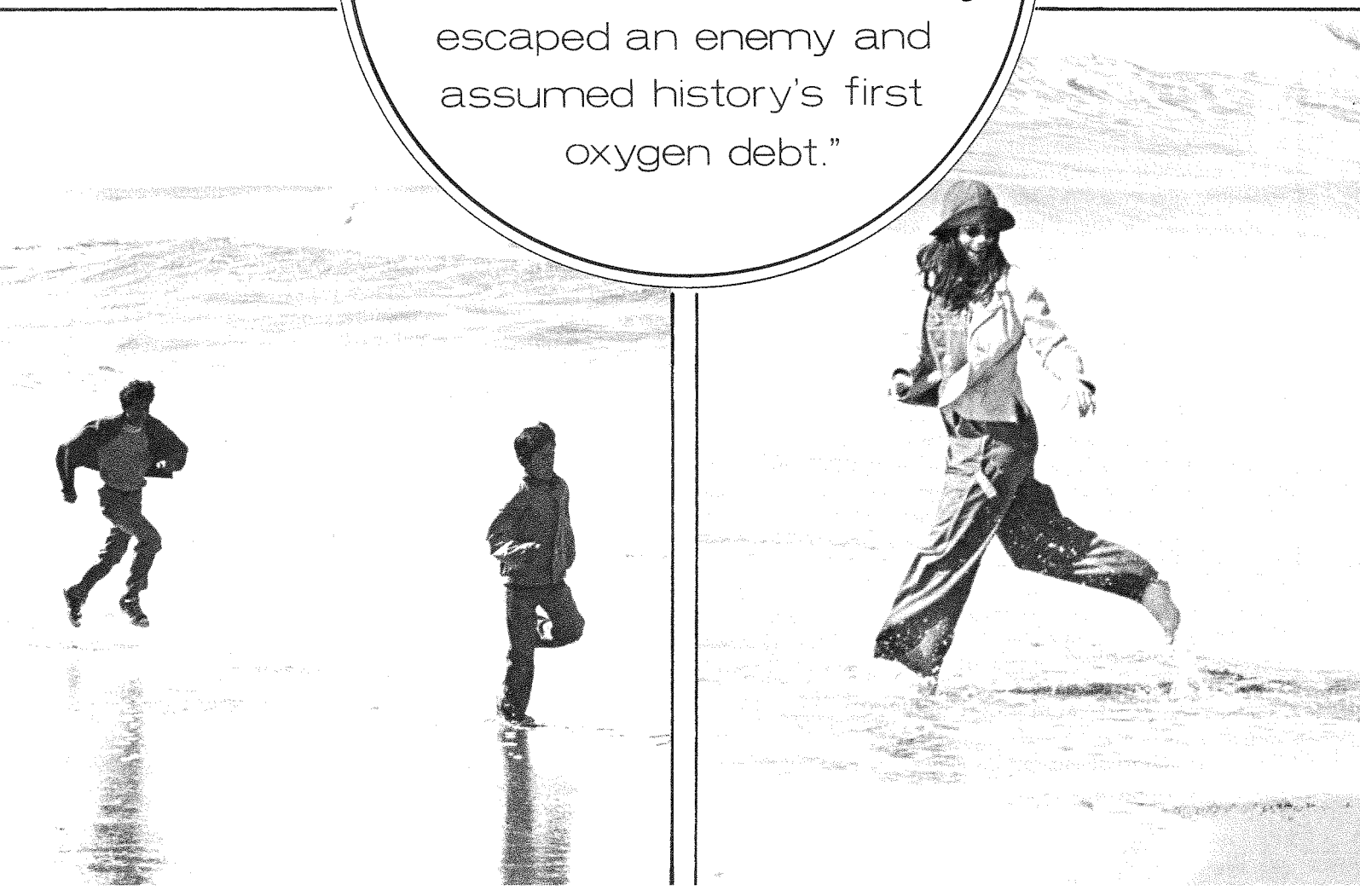
Out of the ocean, I run up behind the crest of the shoreline, where my feet pivot to unprecedented angles of pronation as they sink into the dry powder. Here, sinew is stretched more than is possible on any other surface. Fatigue sets in fast, and every muscle must strain beyond the call of duty to maintain forward momentum. You might be interested to know that such prolonged labor in the soft sand, according to an unorthodox geneticist I met recently, will result in future beach runners regaining the lost art of levitation by growing little wings on their heels.

I can do without that sort of evolution. On the other hand, I'm delighted with the more down-to-earth development of my body through workouts on the beach. My flexors now lash out like

Photos by OMPPhoto



“The beach--
the thin strip of sand
where Derek Clayton's
ancestors took their first
steps; the white apron where
a distant uncle of Filbert Bayi
escaped an enemy and
assumed history's first
oxygen debt.”



bull whips. My adductors, abductors and arch ligaments have become as resilient as rubber. My metatarsals are bunkers of reinforced concrete. My phalanges are talons of case-hardened steel. My tendons are elasticized titanium. My hamstrings and tibialis muscles are packed with power yet stay more relaxed than wet spaghetti. And so on and so forth. By George, the Six Million Dollar Man has nothing on me.

Modesty, you can see, is not my strong suit. But while I'm fond of exaggerated metaphors, I prefer straightforward summations. At this point, then, I choose to conclude that running barefoot in the sand is an unrivaled training activity.

Those few unconvinced individuals of course can write letters to the editor. The rest can rush like lemmings to the ocean. Unfortunately, there's not enough shoreline for all of us. And besides, there are many inland alternatives.

Like running barefoot on river banks of glacial silt. Or springing across tundra. Or striding shoeless through spring snow. Or treading up and down desert dunes. Or scaling taluses of sand at cement factories. Or fartlekking through rice paddies, peat bogs and pastures of cow chips. And for aquatic exercise in dry regions of the country, try swimming in a bin of wheat, a grain similar to water—jump in and you go right under. See, there's a whole slew of substitutes for the shore.

But so you will never forget that the beach itself will always remain the quintessence of barefoot running, I would like to share with you a hundred-mile, week-long adventure down the western edge of California, from Huntington Beach to the Mexican border.

Before I began the run on the sand in October 1974, it seemed prudent to check out coastline conditions. So I inspected the route by car first. A wise move, for I found a number of impassable areas in Laguna, La Jolla, Point Loma and San Diego. But the most frustrating discovery was that a magnificent stretch of sand in front of Camp Pendleton Marine Reservation was being used as an amphibious assault site and bombing range, and had been declared off-limits. Civilians could, however, detour through the base on an 18-mile secondary road. Whoopee.

Dejectedly, I analyzed all the topographical data. Then came to the crestfallen conclusion that my bare feet wouldn't suffice. Some of the trip would have to be run on pavement. I sighed and took my Pumas off the closet shelf.

Next, I convinced my wife Stephanie to be my support crew. On the day of departure, we drove to the north end of Huntington Beach an hour before dawn. But when the sun rose, we were still snuggling in the sand, and I was perilously close to prematurely expending energy I would need later. Fortunately, though, my commitment to run beat back the raging concupiscence, and I was able to disengage myself.

"Meet you at Scotchman's Cove this afternoon," I panted to Stephanie, and ran into the surf to cool off.

Afterwards, I strapped on my accessories, a waterproof pack with my shoes, snacks, ERG and money inside, and began trotting south. Nine miles of flat beach to the Santa Ana River. At first, I just jogged, watching the sand squirt up between my toes. When that got monotonous, I ran backwards, cartwheeled, walked topsy-turvy on my hands, sped all-out, then slowed down again. It took me a horrendous hour and a half to reach the Huntington Beach pier, only six miles from where I started. Well, no need to rush, I consoled myself.

As I passed under the pier, though, someone above and seaward of me called out. It was Stephanie, fishing for dinner. "How's it going, Sport?" she shouted sarcastically and held up her binoculars. "Aren't straining yourself, are you?"

As I came out the other side of the pier, I looked over my shoulder and let loose with a cheeky response vulgar runners often use to repel opponents breathing down their necks. Stephanie heard it and shot her fists at me. I grinned and bounded away in my best racing form.

Fifteen minutes and three miles later, I splashed through the ankle-deep water at the mouth of the river and started running down the Newport peninsula. Halfway, at the open air fish market next to the Balboa pier, to my surprise I spotted Stephanie buying a halibut. I bellowed, "Whatcha doin' Sweetie?" and she blushed, doubling me up in stitches (spasms of merriment, not of the diaphragm) for the following two miles.

But I stopped laughing when I came to the Newport Harbor channel. My first predicament. Signs clearly stated that swimming across was illegal, so it seemed that my only option was to backtrack to the north, take the ferry, and run several miles through the streets of Balboa. But I couldn't bear putting my shoes on so early in the game. Decisions, decisions. I considered the situation, then chose a criminal course-of-action.

Looking both ways for boats and seeing none, I dove in off the jetty and

stroked over to Pirate's Cove. Some rich old coot on the sun deck of a cliff-hanging house swore at me, so when I got out of the water, I pulled down the back of my trunks and bent over for his benefit. Then I scurried over the rocks and ran pell-mell down the Big Corona beach. Until I reached more rocks. A mile and a half of them, to be specific.

After two carob bars and a swig of ERG, I began hopping across the rubble like a broken-field runner. I sidestepped unstable stones and catapulted from one solid boulder to another, only infrequently touching rocks in between. My bare, callused feet knew almost by instinct which way to move. Several times, I stopped to dangle my legs in tidepools and let the sea anemones sensuously suck on my toes. I wish I could have stayed longer.

I arrived at Scotchman's Cove early in the afternoon. Seventeen miles of my trip had now been completed. Stephanie was sun-bathing on the beach. I sprawled out beside her and told her how hungry I was for dinner. She tossed me a can of beans from her purse. "Here," she said icily, "Fix 'em yourself."

My bad luck continued the next day. A mile out, I tried to hurdle a vertical cliff and got stuck 75 feet up. Guess I didn't tilt my chin, stick out my butt or lean forward enough in a backward curving line, as the hill-climbing master Hal Higdon so lucidly suggests.

By the time the police rescued me, it was 10 a.m. Way behind schedule. So I put on my Pumas and hit the highway. My feet felt like straight-jacketed claustrophobics. Soon, though, I was back on the sand, and from Crescent Bay south, I traveled along every negotiable beach in Laguna.

It was slow going, however, because the superb female figures jutting up from the shoreline necessitated frequent stops for reconnaissance. I didn't reach Dana Point until 3 p.m. And it took another half an hour to cross three chasms filled with foaming surf. But I rounded the rest of the rocky shoreline in record time because a pack of dogs decided to molest me. Never more than one step ahead of my snarling pursuers, I danced through my boulder-ballet routine for a mile or so, stumbled into Doheney State Park, and fled into the ocean.

When the dogs lost interest I left. At a fast clip toward the Western White House in San Clemente. Several miles from the Avenida Calafia campground, my wife met me, as I was fervently hoping she would. We rested in a shady baranca, and she massaged my feet. Ahhhh. Far superior to sea anemones.

By now you should have a pretty good idea of the way it was. The pleasures and problems of each day were more or less the same. The scenery was consistently superb, and my legs and feet pumped away almost to perfection. On the other hand, I could always count on one thing or another impeding my progress, thus my pace was erratic, sometimes like a snail, sometimes like a sprinter.

Day Three, though, was atypical in that most of my mileage was off the beach and on a tank and truck route through Camp Pendleton. Traffic was sparse, and the countryside was covered with sage and squirrels rather than subdivisions and supermarkets. Still, I detested the run because for 18 miles I could neither hear the surf nor feel the sand.

But, I suppose my Pumas were happy. In fact, the heels were wearing down in the shapes of little smiles. Soon, though, I exited the base at Oceanside, and I was so glad to be back on the beach that I kept right on going, all the way to the campground at Cardiff-by-the-Sea, for a total of about 30 miles that day.

Day Four was a cake walk. Only 20 miles. Past Torrey Pines Park, where I kinked my neck looking up at the hang

gliders and soaring planes catching the currents of wind boiling over the tops of the sheer cliffs. Past a nude bathing beach, where the mood of the masses inspired me to strip, thus causing the crowd to clamor for my autograph and the sun to lust for my bare bottom. Past La Jolla, a town whose shoreline is too rugged for running, but whose waterfront bike trails are superb substitutes, and whose curves and coves I could have spent a week exploring. Then down to Mission Bay, where Stephanie cooked me the halibut dinner I'd been on my best behavior for.

Day Five. The last stage. But Point Loma and San Diego Harbor stymied me. No beaches. So I sat down, frowned at my maps and flipped a coin. Heads I run through a 10-mile maze of unfamiliar streets, tails I talk my wife into driving me past this mess straight down the freeway to the Silver Strand peninsula.

On the 15th toss, I won. But it took an entire hour to convince Stephanie that carting me south a ways would not blemish the purity of my run.

We pulled into the parking lot of the Coronado Hotel. Stephanie opened a quarter-liter bottle of Mezcal Supremo, and in Spanish made a toast to a successful finish. I added some ERG, told her she

was a helluva trainer and got pleasantly drunk. Then I fell out of the car and wobbled to the beach. Christ, Mexico looked 50 miles away!

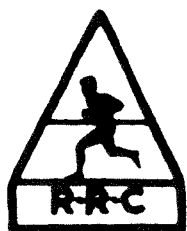
But somehow I made it, although I almost threw up wading across the Tia Juana River. The ERG and tequila tried their best to sabotage my teetotaling stomach. Nevertheless, I ran the last mile looking, if not feeling, like a champ. When I spotted Stephanie rigging up a ribbon on the beach at Border Field State Park, I aimed for the space between the two stakes and hoped neither dizziness nor double vision would cause me to miss my mark.

The last hundred yards, I heard roars from the bullring on the Mexican side of the border. Pretending the crowd was urging me on instead of the matador, I lunged ahead and snapped the ribbon with a cry of victory.

My adventure was over. Or so I thought.

An hour later, though, I was hobbling out of a San Diego emergency clinic.

You see, after I finished, Stephanie and I jubilantly raced into the ocean. But whereas she dove and swam through the waves, I chose to run through them. Seconds later, as fate would have it, I stepped squarely on a sting ray, who savagely stuck its spear into my heel. ●



Road Runners Club of New York Announces

1975



Women's National
AAU Marathon Championship
&
Open New York City Marathon

Sunday, September 28, 1975, 11 a.m.

Central Park, New York City

For information

Road Runners Club ● Box 881, FDR Station ●
New York ● New York ● 10022
(212)759-7115

FIVE YEARS AND THREE MINUTES LATER

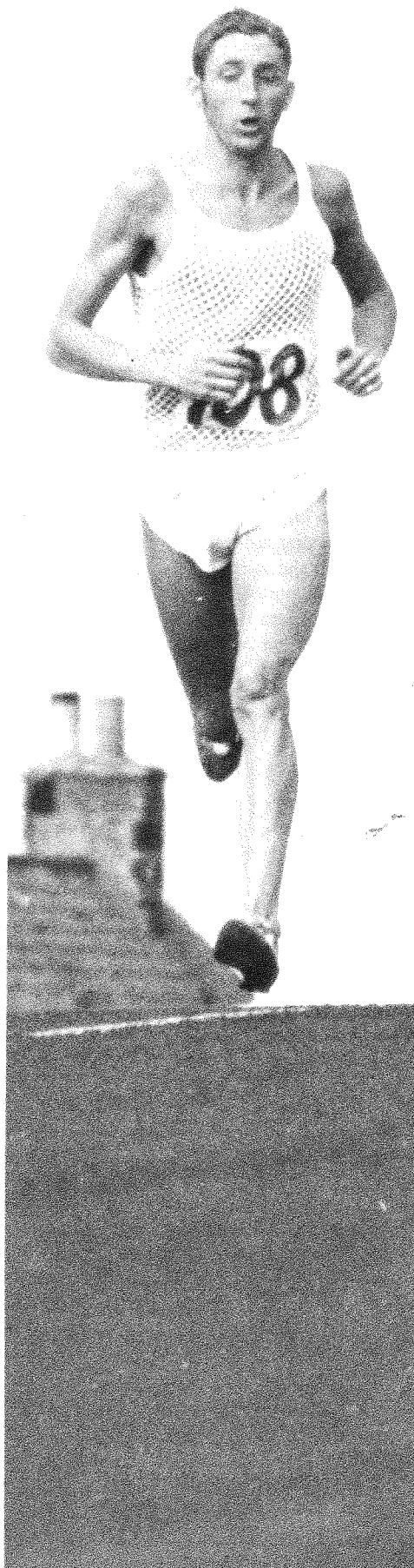
by Paul Fetscher

Boston was the site of Ron Hill's self-immortalizing feat on a cold, rainy April day in 1970. In two hours, 10 minutes and 30 seconds, he carved himself a niche in the mind of every observer of the Boston marathon. That day, he became the world's second fastest. That was the last marathon he would run in North America for almost five years.

As the American road running scene was busy exploding, Ron Hill's efforts were concentrated toward Munich. At the time, his working conditions were well suited to training. His commute to work was seven miles of comfortable running. At the end of his day as a research chemist for a textile firm, his swing home covered up to 12 miles. Longer runs on weekends gave him a weekly total in the range of 120-140 miles.

"Visions of Eight," the cinematic record of the Munich Olympics, portrayed Hill as a maniacal competitor. Many experts considered him the pre-Games favorite in the marathon. The film showed Hill as an intense individual, dressed in his "space suit"—a uniform of aluminized material to ward off the effects of heat. Part of the footage had Ron churning up an unbelievably long hill offering sweeping vistas of the English countryside. The run was a weekend course of 21 miles with enough challenge that Ron considered 2½ hours a good time.

Munich came and went, and Ron



Hill finished a distant sixth. He faded into memory...no longer a force to be reckoned with. Both American and European publications ceased to regard him as anything more than a shell of his former self.

"Next thing you know," he said, "they've all but got me dead and buried. They'd have you believe I'm all washed up and lucky if by the grace of God I ever run 2:20 again."

In the fall of 1974, Ron started to put in solid workouts once again. He was a last-minute entry in the Maryland marathon (see "Hill of a Race in Maryland," Feb. 75 *RW*). The field was good and the hills were formidable. Ron's victory in 2:17 was seven minutes ahead of the runner-up, and fast considering the conditions.

The English winter was cold and miserable. Ron's work shifted. His Ron Hill Sports Ltd. athletic equipment venture became a full-time job. Lacking the necessity of commuting, his mileage slid to the range of 60-70 miles per week.

Then it was arranged through the Colgate Palmolive Company for him to race again at Boston for the first time since he set his record five years earlier.

Hill said, "I've only trained 65 miles per week for eight weeks before this race and mostly at seven minutes per mile. But my God, after all they years I've been running, do you think my muscles are going to get any bigger and stronger by training more than I do?"

Before the race, he was quite honest with reporters. He figured to be up with the leaders but was the first to admit he was not in 2:10 shape.

Ron went out with the leaders, and was content to watch and wait. He wanted to stay within striking range and start moving through the hills. But as he hit the first hill at about 17 miles, he moaned, "Uh, oh. My legs are starting to go." He still ran a creditable 2:13:38 for fifth place.

Hill said later of Bill Rodgers' record-breaking performance, "Some days everything just clicks. He may even be able to run faster, but it's also conceivable that he may not. (Don) Faircloth ran a 2:12 with little experience at the distance. His immediate reaction was, 'I was running well within myself. More training and I should be able to run 2:08.' And what happened? He never got close to that time again."

Ron readily acknowledges that this race gave him a new respect for American runners. "We British, and the rest of Europe, have always thought of the Americans as being soft. They're more likely overweight than not, and are quite in

the habit of popping into their autos to go anywhere at all. I can say that the attitude is rapidly changing. They put on their best show ever at Munich, and now here are three others coming 1-2-3. There's been quite a change, quite a change."

That night, Hill dropped by a post-race party sponsored by the New York Road Runners Club. Most of the interest centered on a question-answer session conducted by the German, Dr. Ernst van Aaken. Through interpreter Joan Ulyot, van Aaken answered queries regarding running physiology, diet, training methods etc.

When asked about carbohydrate-loading, the doctor replied that he didn't believe in it. He went on to explain his answer by referring to the amount of energy stored by birds and used when they fly 60 miles.

Ron Hill took the floor and countered with, "But we're not concerned with bloody birds flying 60 miles, are we? We're talking about running the marathon in 2:10. I know that I ran a lot before 1969, and everything I did until then was rubbish. I'd begin to tire after 18 miles the old way.

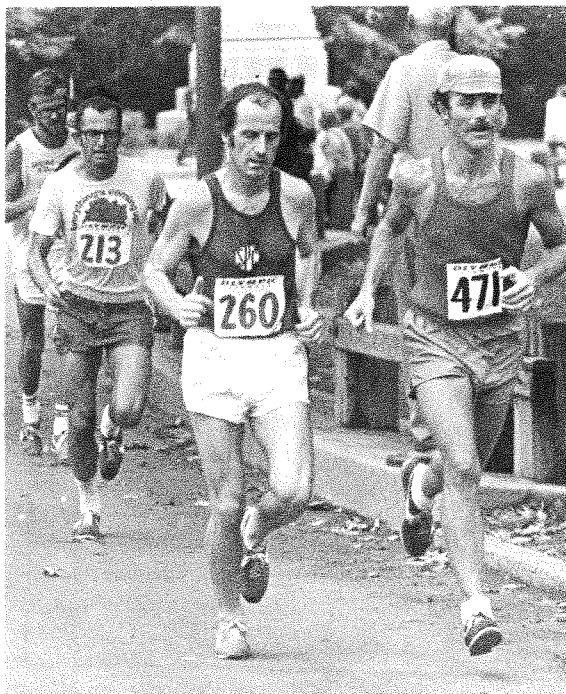
"Then I heard about that carbohydrate business from Scandinavia, and I tried it. I don't train any different now from the way I trained then, but now I can go 24 miles before I feel tired like I used to. The last two miles I just have to force myself."

The exchange between the renowned theorist and the pragmatic marathoner who once was the world's best was the highlight of the night.

The morning after the Boston marathon, Ron Hill was out early for a run. He showed up for a second run at noon, clad only in brief Ron Hill Sports running attire. It was 55 degrees, crisp and sunny, but to Ron it was a rare summer's day compared to the weather at home.

"It's quite a problem to train when it only hits 70 degrees during a heat wave," he said. He told of deciding one summer to seek heat training. He and several friends packed their camping gear and headed to the southern extremities of their country. They returned home cold and water-logged after three straight days of rain.

Ron Hill enjoys telling these stories as he runs. Unlike the fanatical running maching pictured in "Visions of Eight," we found him to be a friendly sort—the type accurately described by Jack Foster as "a lad who'd just as soon be in the pub having a pint with his mates." He enjoys people and running, and at 36 is not over the hill but still on top of it. ●



They Never Get Old

Old Runner's World issues never really lose their interest. In fact, most hold extra fascination for us as we review articles from the past in view of today's happenings. If you're already saving back issues in a safe niche somewhere, you know what we mean. And if you're a recent reader, you'll be happy to learn we've still got some left. Take a look at the list, and then send for yours today, while there are still some left!

ORDER FORM

- | | |
|---|--|
| <input type="checkbox"/> May, 1971 | <input type="checkbox"/> September, 1973 |
| <input type="checkbox"/> November, 1971 | <input type="checkbox"/> February, 1974 |
| <input type="checkbox"/> July, 1972 | <input type="checkbox"/> April, 1974 |
| <input type="checkbox"/> March, 1973 | <input type="checkbox"/> May, 1974 |
| <input type="checkbox"/> April, 1973 | <input type="checkbox"/> June, 1974 |
| <input type="checkbox"/> May, 1973 | <input type="checkbox"/> December, 1974 |
| <input type="checkbox"/> June, 1973 | <input type="checkbox"/> January, 1975 |
| <input type="checkbox"/> July, 1973 | <input type="checkbox"/> April, 1975 |
| <input type="checkbox"/> August, 1973 | <input type="checkbox"/> May, 1975 |
| <input type="checkbox"/> June, 1975 (special issue—price \$1.00) | |
| <input type="checkbox"/> Enclosed is 75 cents/issue checked above. | |
| <input type="checkbox"/> Please send me the whole set—nearly 1,000 pages of great reading—for only \$18.00. | |

Name _____

Address _____

City/State/Zip _____

World Publications, Box 366, Mountain View, CA 94040

MAY, 1971

Jim Ryun Interview
Introducing Orienteering

NOVEMBER, 1971

Larry Young Interview
Another Look at LSD
Nutrition for the Runner

JULY, 1972

Olympic Trials Report
Blood Doping

MARCH, 1973

Avoiding Bursae
Dangers of Carbo-Loading

APRIL, 1973

Peaking for Big Races
Running Tour of Europe

MAY, 1973

The Root of All Training
Different Sprinting Style

JUNE, 1973

Monitoring a Marathoner
Bowerman on the Olympics

JULY, 1973

What Diet Can Do
Coping with Summer's Heat
Shoe Inserts

AUGUST, 1973

Runs that Never End
Computerized Cross-Country
The New Africans

SEPTEMBER, 1973

How Far Will Training Take You?
"Stitch" Prevention and Cure

FEBRUARY, 1974

Our Normal "Abnormalities"
Ron Laird Interview
Sprint Starts Step-by-Step

APRIL, 1974

Women's National Marathon
Test of Running Potential

MAY, 1974

Keeping Your Running Cool
Percy Cerutti Today
How Often to Run and Race

JUNE, 1974

Rod Milburn Interview
Effects of Air Pollution
What Makes a 2:20 Marathoner?

DECEMBER, 1974

David Pain
Pacing Long Races
Women's Secret Weapon: Fat

JANUARY, 1975

Cross-Country Nationals
Ernst Van Aaken Interview
Running and your Knees

APRIL, 1975

Walker Talks about Bayi
Converting the Non-Runner

MAY, 1975

Tarahumara Indians
The Limits of Endurance

JUNE, 1975

Boston Marathon Supplement
Biorhythms and Running

YOU ARE WHAT YOU THINK YOU ARE

by Ken Norton

Speaking on the mental aspects of racing, Steve Prefontaine has said, "It is probably 80% of your preparation. Even if your body is ready, you must have it upstairs or it just won't go."

Psychologists know that the mind has a great influence over the body. Psychosomatic diseases, or ailments with physical symptoms attributed to psychological causes, are an indication of this. And the physical performance of people under hypnosis raises interesting questions as to the power of the mind. If a runner's psychological state can affect him at a very basic physiological level, then his mind can become a valuable ally or a destructive enemy.

Ralph Waldo Emerson realized the importance of our mental processes when he wrote, "Man becomes what he thinks about all day long." In a real sense, what a runner accomplishes is the result of the thoughts, images and attitudes he holds about himself and the world around him. Any runner who expects to improve must discover how to use his mental processes to work for him instead of against him.

The first and most important step in mental preparation is self-awareness. The runner who hopes to improve must be aware of his thoughts, images and attitudes and of how they are affecting his running. Evaluate every thought about running or racing over a specific time period. Honest and objective analysis is necessary. Some important questions to ask are, "What concepts do I hold about myself as a runner, and do they limit or enhance my ability?" "Do I dwell on what I want to happen or on what I do not want to happen?" "What are my attitudes toward racing, training, success and disappointment, and how do all of these affect me?"

Another important principle of mental conditioning is to recognize the computer-like nature of the human mind. Just as you can program a computer to obtain certain results, so can you program yourself for success or failure. Thinking that is inconsistent with what we want to accomplish is negative data and should be eliminated. To counteract negative data you must be aware of what you are thinking. Once you become aware of any inconsistent thinking, you can begin to replace it. This is done by envisioning yourself doing what you want to accomplish.

If you want to develop a stronger

last lap, imagine yourself beginning the final lap with tremendous strength. See yourself passing opponents while striding effortlessly and getting both faster and stronger. At the same time, try to recall the feelings you have had in previous successful races. This "imagining" technique can be used when you are running or when you are relaxing. But be sure to always use some positive thought or image to cancel out any negative mental input. In this way, you will not give destructive thoughts a chance to become implanted within the subconscious mind. This positive input will also help to build the self-image you need to improve.

Just as negative thoughts can affect your performance in a negative way, so can the negative articulation of these thoughts. Gripping and complaining can deflate your feelings and affect the people around you in a negative manner. It is easy to believe your negative talk, so when you eliminate this you will benefit yourself and others around you.

Instead of negating one's mental preparation, a runner should use the power of words to enhance performance. Distance ace Tom Fleming seems to realize this when he stated, "I talk to myself constantly during the race to keep myself aware of the race. . ."

Doug Brown, US steeplechase record holder, also talks to himself to help prepare himself for a race. Brown says, "I talk to myself as an observer of the race, with me doing just what I plan to do in the race. I picture the time I expect or want and the position I hope for, which is first."

A runner may also develop his own positive sayings that help in his mental preparation. Repeating positive sayings over and over is not only good for your psychological state, but it can also help to develop the important factor of rhythm. A runner might utilize this technique during his warmup. A simple saying like,

Ken Norton did his college running at Southwest Missouri State University. He writes that largely through an improved psychological outlook, "My mile time dropped from 4:20 to 4:09 in one season. I got second place in the NCAA Division II three-mile after finishing last in my qualifying heat the year before. At the Kansas Relays, I finished second, 15 yards behind Phillip Ndoo. The year before, he had lapped me in the six-mile."

"Run hard, run fast, run smooth," repeated over and over, is good positive input and helps develop relaxation and rhythm.

Just as important as your thoughts in mental preparation are your attitudes and overall philosophy. I have developed a philosophy toward racing that has become a very important factor in improving my times. Before, I had seen racing as something to be dreaded, offering nothing but pain and the opportunity to embarrass myself. Today, my attitude is completely different. I see the race as the opportunity to express the power I have created within myself through my own efforts, as a climax of factors that have been largely determined before the race even begins. Proper training and mental preparation have been completed before the race. The race itself is simply the execution of these factors.

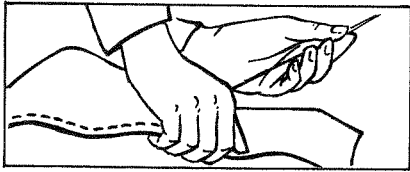
I find I run best when I become totally committed to and involved in the action of the race, concentrating not on myself but on where I want to be in the next moment. This type of positive involvement and concentration frees the mind from the body and lessens awareness of pain and fatigue.

I try to develop the attitude that my opponents' faster previous times do not mean that they are better than me. I have just not run that fast yet, and today is a good day to do it. Without developing some kind of positive attitude in this type of situation, a runner is sure to become "psyched out" by the faster runners.

Of course psychological preparation is not an instant avenue to improvement, nor is it the complete answer. Just as one must run daily to prepare himself physically, so is daily psychological conditioning necessary. An instant "psych" just will not work. We must seek to build the foundation of psychological preparation every day if we expect our minds and bodies to withstand the stress of competition.

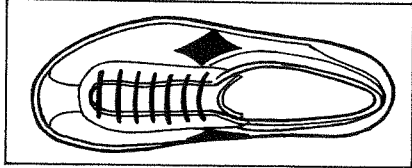
The essence of the proper racing psychology lies in the refusal to dwell upon negative thoughts and old limitations. Through a commitment to go into the race to see how well one can do if he will only permit himself, and by a dedication to find his true potential as runner, the race can be seen as a friend and not an enemy. Through this positive philosophy, the runner can move toward the freedom from fear and inhibition. ●

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



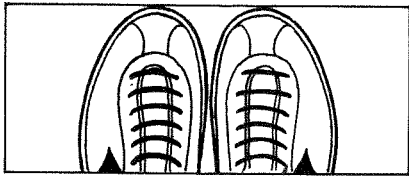
CRAFTSMANSHIP

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!



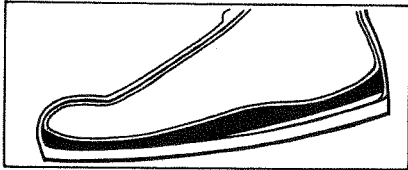
COOL LEATHER LINING

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.

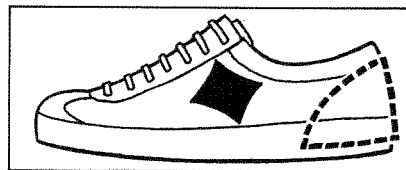
BLUE/WHITE. AVAILABLE IN SIZES 5½-13. \$35.95 postpaid

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

BEIGE/RED. AVAILABLE IN SIZES 5½-13. \$31.95 postpaid

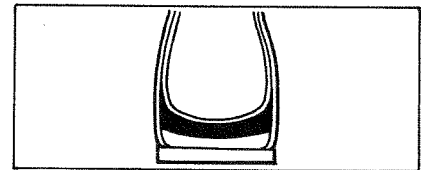
1130 LYDIARD "ROAD RUNNER" — This design will absorb the continual stress of covering long distances on the road.

BEIGE/RED. AVAILABLE IN SIZES 5½-13. \$31.95 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
(213) 887-7429

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

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.

STRETCH YOUR SOLES — Get more mileage from your soles by using famous sole saver. Large size (pint) can now just \$5.50 including postage from Starting Line Sports, P.O. Box 8, Mt. View, CA 94040.

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.

PAUL BUNYAN MARATHON— Saturday, July 19. Run in conjunction with 7th Greater Bangor (Me.). Open Invitational. Sponsored by Bangor Daily News in cooperation with University of Maine at Orono. Sanctioned by Maine Association of AAU. Contact Marathon Director, (207) 942-4881, or by mail for application c/o Bangor Daily News, 491 Main St., Bangor ME 04401.

BUFFALO TO NIAGRA—2nd Annual Skylon International Marathon. Saturday, October 25, 12:30 p.m. Beautiful fast course, beginning at Buffalo's Delaware Park, crossing the famous Peace Bridge into Canada along the Niagra River. Ending amidst the roar of Niagra Falls. A great event! Details and entry blank in the next issue of *Runner's World*. Alan Gross, 378 Elmwood Avenue, Buffalo, NY 14222, (716) 882-1363.

WHEAT GERM — The most accepted nutritional supplement for athletes. We offer a special higher-protein wheat germ needing no refrigeration. \$6.95 (including postage) for a 4-lb. (4-1 lb. boxes) container. Starting Line Sports, Box 8, Mountain View, CA 94040.

YOUNG AT HEART FESTIVAL 10-Mile Road Run—Saturday, August 23, 1975 in Loves Park, IL, just north of Rockford, IL and south of Beloit, WI. Trophies to 10 age categories, from boys, 13-under to men over 50, 2 women's divisions. More than 100 custom medals to place winners, awards for every finisher. Contact: Harlem Marathon Club, 5425 Bennett St., Loves Park, IL 61111.

SPORTS MEDICINE and Trainers Workshop—August 1, 2, 3, 1975. College of San Mateo. Fee \$39.00, includes lunches. \$20.00 additional for one hour graduate credit. Chief Instructor—Del Tanner, Trainer of the Los Angeles Lakers. Emphasis on preventive taping, wrapping, injury diagnosis, treatment, special joint exercise, field examinations, diet, energy levels and muscle degeneration. Contact: Otis Cross, 12121 Wilshire Blvd., Suite 205, Los Angeles, CA 90025.

LAST CHANCE to join US Masters West Coast charter to AAU Masters, White Plains, NY and World Masters, Toronto. Departs L.A. 8/7. Returns 8/18. Write: D. Pain, 1951 Cable St., San Diego, CA 92107, (714) 225-9555.

PACING — The most critical and important skill for middle distance and distance runners. Sports-Tronix has solved the pace control dilemma. The evidence is conclusive. You could pay thousands for pacer lights and still wouldn't get the same effectiveness. With the Mini-Spacer there's no need for neck-craning and wondering when the light went on. Reduce times systematically. Let us tell you about it. Sports-Tronix, Box 2186, Mesa, AZ 85204.

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.

NATIONAL AAU MASTERS' MARATHON—Sunday, October 12, 8:30 a.m. Two laps over scenic, country roads in the beautiful Rogue River Valley near Medford, OR. \$3.00 pre-entry. Divisions every 5 years. Contact Southern Oregon Sizzlers, c/o Jerry Swartsley, P.O. Box 1072, Phoenix OR 97535, (503) 535-1205.

NEW ZEALAND'S BEST MARATHON—Hamilton, New Zealand, Oct. 25, 1975. Sponsored by Eclipse Wire Ltd., and conducted by Hamilton Harriers under New Zealand A.A.A. rules. Trophies: 1st-6th fastest, 1st-6th handicap. Team's trophy of 3. Age groups: 40-44, 45-49, 50-54, 55 and over. Ladies trophy. Certificates and T-shirts to all finishers. Write to Organizer, Hamilton Harriers' Marathon, Box 10-048, Hamilton, New Zealand.

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.

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 Cor-tez \$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.

NIKE, TIGER, BROOKS SHOES—Men's Brooks, 1-13, Women's Brooks, 4-10, Women's BC sizes. Nike 3-13. New women's training shoe & excellent men's. Nike, USA Track, Montreal 76 T-shirts. Information send self-addressed, stamped envelope: The Athlete's House, 1700 Portland Ave., Nashville, TN 37212.

DILWORTH JUBILEE RACE—Saturday, Aug. 16, 11 a.m., 6-mile 3 mile for women. Age group prizes. Contact Matt Heyd, 1652 Dilworth Rd. W., Charlotte, NC 28203.

MARIST COLLEGE DISTANCE RUNNING CAMP—August 17-22. Best camp in country! Marty Liquori, Dave Wottle, Tony Waldrop, other top international running stars run and talk with you! Receive 30-page personalized running profile on yourself! Excellent dorm housing and unlimited seconds on food! Five different teaching stations. Pool, tennis courts, weight room, many different running areas including two golf courses. Games, contests, drills, trophies, special lectures. Limited enrollment—last chance—send for free brochure now: Rich Stevens, Track Coach, Marist College, Box 814, Poughkeepsie, NY 12601.

NEW FROM WORLD PUBLICATIONS

The Basic Soccer Guide

Soccer is spreading like a brush fire across the US, and most of the fuel is coming from the grass roots: the soccer-crazy kids and the parents who coach them. But sometimes players and coaches new to the game don't know where to begin.

Bobby Moffat, author and professional player, loves coaching kids—and his know-how shows in *The Basic Soccer Guide*. His detailed, step by step approach encompasses basic soccer technique, formations, tactics and rules. Set your soccer field ablaze with the help of this valuable, new guide. To be published in June. Paperback, illustrated, \$3.50.



World Publications

Box 366, Mtn. View, CA 94040

Please send me the Basic Soccer Guide. I enclose \$3.50 plus 20 cents postage. (Cal. residents add 6% sales tax).

Name _____

Address _____

City _____

State _____ Zip _____

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.

FIRST ANNUAL Ed Granowitz Reversible Mile Race—8 miler, Sat., Sept. 27, 1975. Prizes to all finishers. Cut-off date Aug. 15th. Particulars & entry form from: Ed Granowitz, 2953 Avenue W, Brooklyn, NY 11229.

NATIONAL AAU Men's Senior Cross Country Championship—Also boys' National AAU Championship (7 & under to 16-17). November 30, 1975, Annapolis, MD. Entry information: Al Cantello, 516 Hillsmere Dr., Annapolis, MD 21403. T-shirts available now in all sizes, \$3.50, includes postage.

FLORIDA TRACK CLUB DISTANCE CAMP—July 27-August 2, Brevard, N.C. Open to male & female runners, all ages & abilities. Run & learn with Jack Bacheler, Barry Brown, Byron Dyce & special guest Hal Higdon. Write Roy Benson, Athletic Dept., Univ. of Florida, Gainesville, FL 32604.

TAHOE TRAILS ROAD RACES—Special rate for road racers' room and board. July 6: Race Mt. Rose. August 2: Tahoe Trails Race. August 16: DeCelle-Lake Tahoe Relay. Write Jeff Galloway, c/o Mt. Rose Lodge, Box 3776, Incline Village, NV 89450.

VIRGINIA 10-MILER—Lynchburg Road Runners will repeat the Virginia 10-miler on Saturday, September 20, 10:00 a.m. Be on the mailing list. Contact: Rudy Straub, Virginia 10-miler, P.O. Box 1280, Lynchburg, VA 24505.

RUNNING PHILOSOPHY—Get an insight into running with Joe Henderson in his classic "Thoughts on the Run." \$2.50 from RW, Box 366, Mt. View, CA 94040.

RRC 24-HOUR RELAY & 100 MILE RUN—Starts Saturday, August 16, 1975 at Queensborough Community College, Bayside, NY. For further information, send a stamped, self-addressed envelope to Road Runners Club of New York, P.O. Box 881, New York, NY 10022.

EASTERN 100-EVENT SCHEDULE—For schedule of races ranging from 880 yards to 100 miles, plus current entry blanks, send a stamped, self-addressed envelope to: Road Runners Club of New York, P.O. Box 881, New York, NY 10022.

RRCA AGE GROUP 15 Kilometer National Championship—plus 15 kilometer run for men and women. Saturday, July 26, 5:30 p.m. Morgan Monroe State Forest, SR 37 north of Bloomington, Indiana. For information contact Ray Vandersteen, 3443 Windcrest Dr., Bloomington, IN 47401.

CROSS-COUNTRY—Only in The Harrier. Features, photos, results. National X-C, college and high school. Men's and women's. 10 weekly issues, Sept.-Dec. Free to all subscribers: special Spring Issue with international meet coverage and summer camp listings. \$6.00/year. 1st class mail. Order now: The Harrier, P.O. Box 188, Eltingville Station, Staten Island, NY 10312.

MECCA WANTS to do a little name dropping of its own. Winston Brown, age 9, Norman Bright, age 64, Talmage Morrison & his wife, Frances (fun people), Barry Brolley (darn nice kid), the Kellof brothers, Dutch Workman, age 12, Susan Yanai, high schooler, and a whole tribe of runners from Tuba City, AZ. Paces and races for everyone. Contact Rich Heywood, Runner's Mecca, Box 000, Parowan, Utah 84761, (801) 586-6778.

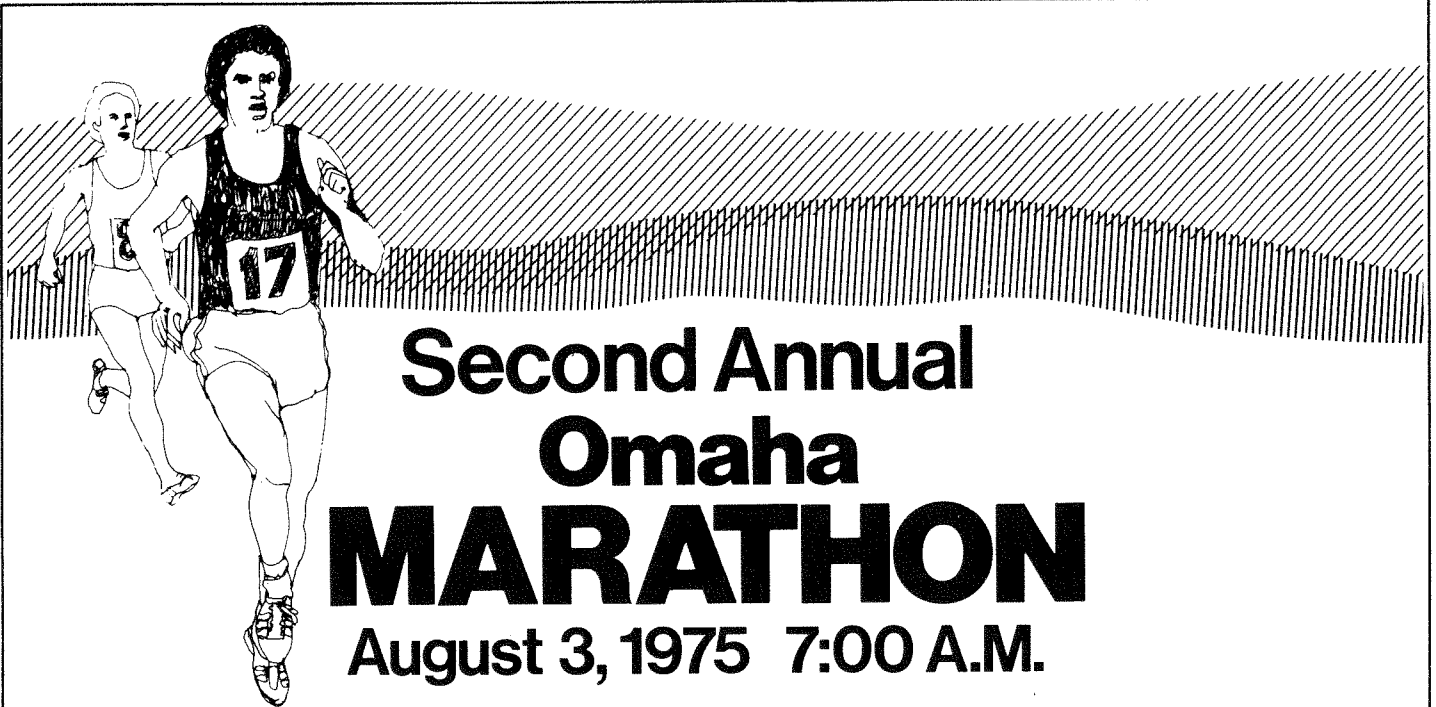
PRESQUE ISLE MARATHON—Erie, PA. Sunday, August 10, 1975, 7:00 a.m. Course absolutely flat, 2 laps of 13.1 miles, extremely scenic. \$3.00. Contact: Presque Isle Marathon, Downtown YMCA, 31 West 10th St., Erie, PA 16501.

Advertising Rates

This is the runner's marketplace—an effective and economical way to advertise equipment, training aids, races, and personal notices. Over 30,000 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: September. Closing date is July 20, 1975. All ads must be paid in advance.

Lynne Hart
Advertising Manager
P.O. Box 366
Mt. View, CA 94040



**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
---	--	---

RUNNER'S GUIDE TO TORONTO

One key reason why running is thriving in Toronto is the variety offered in both terrain and climate.

Sloping gently upward from the shoreline of Lake Ontario, the terrain offers a smorgasbord of flat beaches, parks and enough hills and vales to create a balanced diet for any type of training.

Winters can best be described as "moderate" by Canadian standards, while anything can be expected in spring. Summer temperatures tend to average in the 70s, although periodically humidity and heat do soar to uncomfortable levels, testing the runner's dedication. Autumn brings to mind long runs taken in cool, crisp temperatures amid swirling leaves and colorful sunsets.

To the interested newcomer, a racing program is available the year-round, at all distances through the marathon. The main contributor to this program has been the Metro Toronto Road Runners Association. Membership has risen to over 100 runners.

Runners

880 - Marathon

Boys and Girls

All Ages

and

Experience

A Once-In-A-Lifetime
Event This Summer

write:

Box 1-A
Columbia, VA
23038

Deciding where to train presents the runner with pleasurable choices. High Park, located in the west end, is the scene for many of the local cross-country and road races. Each fall, the International Silver Relays are held here on the flat 1.1-mile road loop just south of Bloor Street. Training can be done on the circuit roads which wind through the park, or you can test your shape on the numerous trails, hills and fields which cover the area. A small zoo in the center of the park and scenic Grenadier Pond provide a bonus to the runner. If you still feel energetic, you can follow Howard Road southward. It will lead you out of the park to Sunny-side Beach and the lakeshore.

The lakeshore route follows the contours of Lake Ontario and provides approximately five miles of unobstructed running on paved walkways or on the wide stretches of adjacent grass. The course is a popular one for road races because it is fast, flat and accurately measured. During the summer, runners seek the comforting breezes and the coolness provided by the lake. However, in winter it is indeed a hearty soul that runs along here. Although snow presents no real obstacles, the wind can be harsh and shelter along here is non-existent.

Should you be landing at Malton Airport, look southeast and you will see Centennial Park. The park was created in 1967, ski hill and stadium included, to commemorate Canada's 100th birthday. The stadium hosts track meets at all levels from May to September, and is the starting site of road races held here. It will also be the site of the world masters games to be held this August.

The surrounding park area is relatively flat, consisting mainly of grass playing fields. Cross-country races are also held here and always seem to include the ski hill as part of the course.

On the east side of the city, the focal point for races and training is Sunnybrook Park. It can be reached from the corner of Leslie and Eglinton Avenue. Sunnybrook is the first of five valleys all linked together by a variety of paths, trails, roads and petite bridges. The pavillion in Sunnybrook is also the meeting place for the Metro Fitness Club. The club meets every Sunday morning at 8:30 for a run, and provides the newcomer with an excellent opportunity to get to

know the running scene. Depending on the route you take, a one-way trek through the valley can be extended up to 10 miles. The valley terminates in Taylor Creek Park at Victoria Park Avenue and caters to the needs of every runner in both terrain and beauty.

For those inclined toward track training, if you are near the downtown area drop by Varsity Stadium located on the University of Toronto campus.

The best all-weather tracks are found at Birchmount Stadium, located in the east end, and at Centennial Stadium.

During the winter, action switches to the South Industries Building located by the Canadian National Exhibition grounds.

For more information, concerning running in Toronto, contact: Mike Freeman, 154 Cactus Ave., No. 57; Willowdale, Ontario, or Tim Uuksulainen, 1575 Queen St. E., Apt. 601, Toronto, Ontario. ●

Cross Country and Steeple Chase Workshop



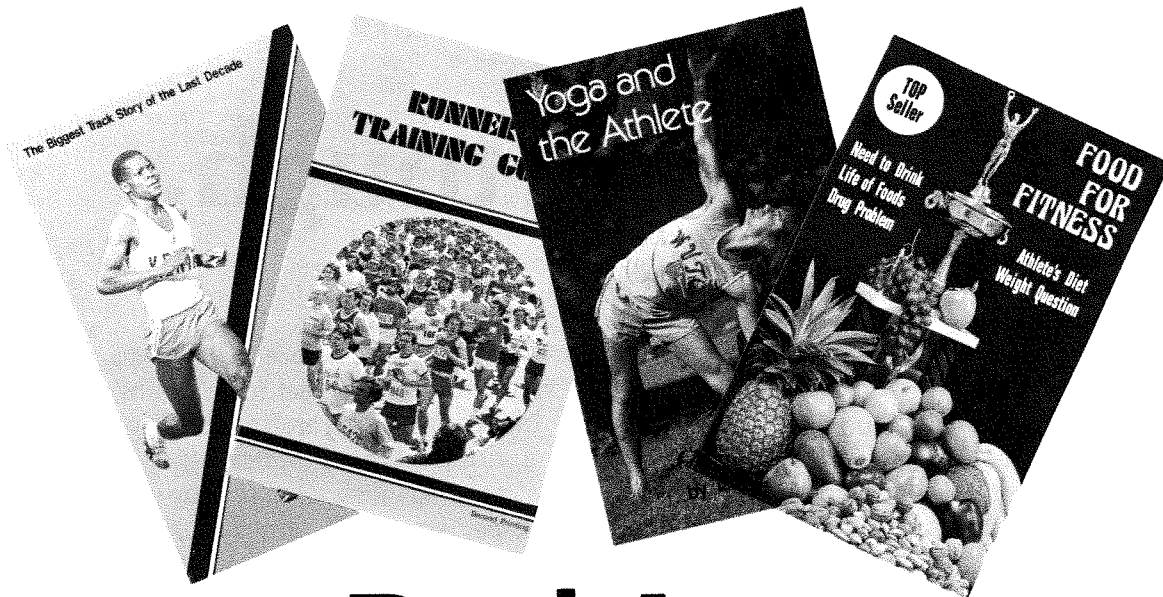
on the beautiful California
Redwood Northcoast

Aug. 17-22 Aug. 24-29

- Five full days
- Choice of dates
- Ideal climate
- Challenging terrain
- Great coaching staff
- Three workouts a day
- Seminars & evening programs

**REGISTRATION, BOARD and ROOM
\$105.00**

COACH JIM HUNT
HUMBOLDT STATE UNIVERSITY
ARCATA, CALIFORNIA 95521



READ ANY GREAT BOOKS LATELY?

What's behind Filbert Bayi's 3:51 mile record? Read Tom Sturak's story on his training, lifestyle and ideas and find out. And after that, read the 15 other articles in **The African Running Revolution**. You'll see that, while Americans and Europeans are cautiously approaching a training and racing philosophy based on the "inner whisperings" of the body's "built-in coach," the Africans have never run any other way. They've shown and are still showing that the natural runner is alive and well—and extremely competitive at world class level. 1975 Ppb., 112pp., ill., \$2.50.

In the **Runner's Training Guide**, the editors of Runner's World explain the physiological principles that form the basis of all modern training theories. They give you enough information (thoroughly documented) to make an intelligent choice of training methods and to understand what is happening to your body, and why, when you train. This is a book about personalizing training: making it fit your needs, abilities and goals, and giving you the most efficient means possible of achieving those goals. 1973 Ppb., 96 pp., ill., \$2.95.

Yoga has much to teach athletes about flexibility and sensitivity. By "playing the edges" of your body's limits but never going beyond them, by stretching without straining (literally and figuratively), you too can push back barriers you once thought immovable, and perform as you never have before. **Yoga and the Athlete** affords a unique, personal insight into yoga, and is written with a special understanding of the problems and needs of the performing athlete. 1975 Ppb., 96 pp., ill., \$2.50.

Food for Fitness explores the advantages good nutrition can give you—no matter what your sport is. In it you'll find heaps of information on correct diet from nutritionists, researchers, and athletes. The book's seven big chapters talk about the specifics of the problem—protein, vitamin and mineral requirements, food preservatives, how much you should weigh and how to reach that weight, carbohydrate loading, what to eat before and during a race, fasting, vegetarianism, and how to change your eating habits. 1975 Hb. & Ppb., 144 pp., ill., \$5.95/\$2.95.

Please send me the following books:

TITLE	QUAN.	PRICE	TOTAL
The African Running Revolution		\$2.50	
Runner's Training Guide		\$2.95	
Yoga and the Athlete		\$2.50	
Food for Fitness (Hb.)		\$5.95	
Food for Fitness (Ppb.)		\$2.95	
		Postage and handling	
		Tax	
		TOTAL	

Please include 25¢ postage and handling for each book, and 6% sales tax within California.

ORDER FORM

Name _____

Address _____

City _____

State/Zip _____

WORLD PUBLICATIONS

P.O. Box 366, Mountain View, CA 94040

They're tough.

Go for a run in the rain. Wear them every day for miles of training. Cover them with mud and dirt on a cross-country outing. Run on roads, grass or cinder tracks. Tiger Montreal 76's are built to last. Their cool, comfortable nylon uppers won't stretch or tear, stiffen or crack, no matter how hard you use them. The new "heel lock" heel counter, the

wider, more stable heel, and the leather toe cap will protect your feet from strains and sprains, and the foam-cushion arch support and heel wedge will absorb the shocks that cause injuries over hundreds of training miles. Red or blue with white Tiger stripes, sizes 3-13, only \$22.95.



Tiger Montreal '76

Please send me _____ pair of Tiger Montreal 76's. Color (red & white or blue & white) _____. Size (3 to 13 in half sizes) _____. Enclosed is \$22.95 per pair, plus \$2.00 postage and handling and 6% tax within California.

Name _____

Address _____

City/State/Zip _____

World Publications, Box 366, Mountain View, CA 94040

by George
Sheehan, M.D.

MEDICAL ADVICE

Living may be easy in the summertime, but distance running is not. Summer heat and humidity hamper performance, even threaten health and life, to such a degree that the American College of Sports Medicine has issued the following "position statement on prevention of heat injuries during distance running":

The requirements of distance running place great demands on both circulation and body temperature regulation. Numerous studies have reported rectal temperatures in excess of 105 degrees F. after races of 6 - 26.2 miles. Attempting to counterbalance such overheating, runners may incur large sweat losses.

The resulting body water deficit may total 6 - 10% of the athlete's body weight. Dehydration of these proportions severely limits subsequent sweating, places dangerous demands on circulation, reduces exercise capacity and exposes the runner to the health hazards associated with hyperthermia (heat stroke, heat exhaustion and muscle cramps).

Under moderate thermal conditions, e.g. 65-70 degrees F., no cloud cover, relative humidity 49-55%, the risk of overheating is still a serious threat to highly motivated distance runners. Nevertheless, distance races are frequently conducted under more severe conditions than these.

Since it is likely that distance running enthusiasts will continue to sponsor races under adverse heat conditions, specific steps should be taken to minimize the health threats which accompany such endurance events.

Fluid ingestion during prolonged running has been shown to effectively reduce rectal temperature and minimize dehydration. Although most competitors consume fluids during races that exceed 1-1½ hours, current international distance running rules prohibit the administration of fluids until the runner has completed about seven miles. Under such limitations

the competitor is certain to accumulate a large body water deficit before any fluids would be ingested.

To make the problem more complex, most runners are unable to judge the volume of fluids they consume during competition. (And usually don't take enough to satisfy their needs.) It seems obvious that the rules and habits which prohibit fluid administration during distance running preclude any benefits which may be gained from this practice.

Runners who attempt to consume large volumes of a sugar solution during competition complain of gastric discomfort (fullness) and an inability to consume fluids after the first few feedings. Generally speaking, most runners drink solutions containing 5-20 grams of sugar per 100 milliliters of water. Although saline is rapidly emptied from the stomach, the addition of even small amounts of sugar can drastically impair the rate of gastric emptying. During exercise in the heat, carbohydrate supplementation is of secondary importance and the sugar content of the oral feedings should be minimized.

Based on research findings and current rules governing distance running competition, it is the position of American College of Sports Medicine that:

1. Distance races above 10 miles should *not* be conducted when the wet-bulb temperature-globe temperature exceeds 82 F. (The weather bureau uses the THI—temperature humidity index. The equivalent THI is 79. Call the local weather station for readings.)

2. During periods of the year when the daylight dry-bulb temperature often exceeds 80 F., distance races should be conducted before 9 a.m. or after 4 p.m.

3. It is the responsibility of race sponsors to provide fluids which contain small amounts of sugar (glucose) and electrolytes (sodium and potassium).

4. Runners should be encouraged to frequently ingest fluids during competition and to consume 400-500 milliliters (13-17 ounces of fluid 10-15 minutes before competition.

5. Rules prohibiting the administration of fluids during the first 6-7 miles of a marathon race should be amended to permit fluid ingestion at frequent intervals along the race course. In light of the high sweat rates and body temperatures during distance running in the heat, race sponsors should provide "water stations" at 2-2½-mile intervals for all races of 10 miles or more.

6. Runners should be instructed in how to recognize the early warning symptoms that precede heat injury. Recognition of symptoms, cessation of run-

ning and proper treatment can prevent heat injury. Early warning symptoms include the following: pilo-erection on chest and upper arms, chilling, throbbing pressure in the head, unsteadiness, nausea and dry skin.

7. Race sponsors should make prior arrangements with medical personnel for the care of cases of heat injury. Responsible and informed personnel should supervise each feeding station. Organizational personnel should reserve the right to stop runners who exhibit clear signs of heat stroke or heat exhaustion.

It is the position of the American College of Sports Medicine that policies established by local, national, and international sponsors of distance running events should adhere to these guidelines. Failure to adhere to these guidelines may jeopardize the health of competitors through heat injury. ●

Plan now to read Dr. Sheehan's book, Doctor Sheehan on Running. He talks medicine, but he does much more than that. He looks at the sport from the unique standpoint of one who practices writing and running as well as cardiology. Available in August from Runner's World.



adidas Marathon

The adidas Marathon—a new marathon and walking shoe that fits like a glove. Soft velour leather uppers in moccasin construction and ankle cushioning give support

without pressure, and a long-wearing sole finishes off this latest addition to adidas' fine line of specialty sports shoes. Sizes 6-12, \$37.95.

ORDER FORM

Send me _____ pair of adidas Marathons, size _____, @ \$37.95 plus \$2.00 postage and handling. (Calif. residents add 6% tax.)

Name _____

Address _____

City/State/Zip _____

Starting Line Sports
Box 8, Mountain View, CA 94040

Looking AT PEOPLE

● Dr. Ernst van Aaken wasn't too impressed with the women's marathon record set by **Liane Winter** at Boston. Speaking on the West Coast a few days later, the German doctor said he expected the record to be broken on May 3 at Dulmen, West Germany. **Christa Vahlensieck** would do it.

He was right. Vahlensieck ran 2:40:15, more than two minutes faster than Winter's Boston time. Christa ran 38:45 for 10 kilometers, 1:17:05 for 20 and 1:54:15 for 30 en route.

In *Parade* magazine, she recently said of the men she races in marathons, "They are vain creatures. They would rather sprint than be passed by a woman. As a result, they waste their reserve energy, and after six or seven miles I pass them anyway."



Christa Vahlensieck (Spiridon)

● The crowd around three hours at Boston may have jumbled the women's results. In the confusion, two lines backed up at the finish, one moving, the other almost stopped.

Kathy Loper, in the slow line, was told that she ran 2:57:31 and finished fifth among women. Official results later showed her sixth, almost two minutes slower.

Her coach, **Ernie Cunliffe**, said, "I estimate 30-40 runners who finished behind our group were blended in ahead of us. This brought the unfortunate situation where **Merry Cushing** was credited with being fifth. Kathy knows for a fact that she was fifth and that **Marilyn Paul** was the next woman we saw finish, pro-

bably in 2:59. I'm also sure that Cushing was under three hours, no doubt 12 seconds or so behind Paul."

We said it was confusing.

● Average improvement for the first 10 women at Boston was 6:40, with all but two of them getting PRs. **Judy Gumbs** went from 3:19 to 3:02, **Gayle Barron** from 3:06 to 2:45, and winner **Liane Winter** from 2:50 to 2:42.

● Ah, the poor runner. Can't even get the law to support him.

Item: **Sidney Marcus** of Chicago carries a baseball bat when he runs. He recently used it as intended—on two attacking dogs. He broke one dog's leg. The owner pressed charges, and Marcus was found guilty of "criminal damage to property." He was ordered to pay the dog's medical bill and was placed under court supervision for one year. "You overreacted," the judge told Marcus.

Item: **Wayne Boyles** of Greensboro, N.C., wears a ski mask when he runs on cold days. One day this spring, two detectives stopped him and informed him he was breaking the law. If he wanted to run on the streets, he had to go barefaced. It seems the city enacted a statute in 1953 in reaction to hooded parades and demonstrations by the Ku Klux Klan.

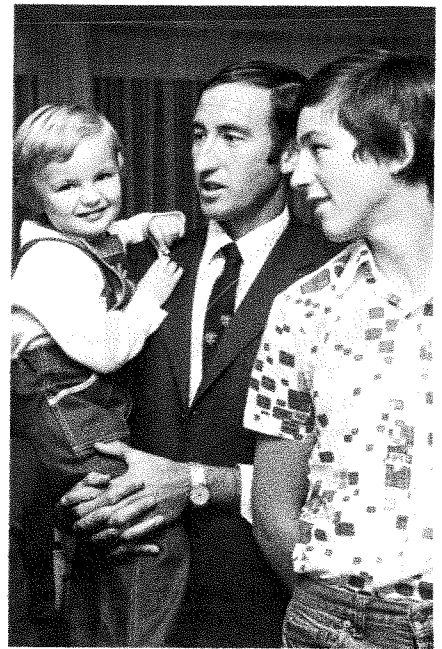
"I wonder what other stupid little laws they got hidden away," said Boyles. "Maybe it's against the law to wear red on Wednesday."

● **Herb Elliott** is still regarded as one of the greatest milers ever, although he retired nearly 15 years ago. The Australian, now 37, lives in Dusseldorf, West Germany, with his wife and six children.

● **Gerald Ford's** swimming and skiing are commendable. But **Walter Sheel**, now there's a president we runners can really admire. Sheel, the West German leader, frequently participates in the national fitness program which emphasizes running.

● At last report, **Kevin Bowers** (see "Looking at People," April 75) was about to begin the last leg of his 10,500-mile run from his home in England to Sydney. He doesn't want to stop there, however.

"At present," he wrote in May, "I am trying to get some newspaper or large company to sponsor a run across the United States. If we managed to continue across the States, then we would



The Elliotts (Horst Muller)

run from Southampton back to Stoke (his home), making it a 'round-the-world marathon."

● **Bruce Neuschwander**, writing in *Soccer World*, has this tip on shoe-lacing: "Bring the lace down through the hole, over the next hole, down through it and so forth. (Most people bring the lace up through the hole.) If your shoe happens to come untied, this method of lacing will assure you that your shoe will not fall off. To test this, just expand your fist in a shoe laced in both manners. The laces will lock with the shoe that is laced down through the hole."

● **Isa Varela** of southern California recently celebrated her 50th birthday by running 50 miles in less than 10 hours.

● The newspaper *The Enquirer* tells of another southern California woman. **Eula Weaver** said four years ago, "When I walked across my backyard, my grandchildren would have to carry me back." Last year, she competed in the 1500-meter run at the Senior Olympics.

"A program of diet and exercise has made all the difference," she said. "I feel so good I'm looking around for a boyfriend. I keep my eyes open, but the men I've met are too old for me. They can't keep up with me."

She's 86.

● Athletes who complain about the AAU being "unresponsive to our needs," please note: **Russ Hodge** of the track and field committee mailed questionnaires to 300 athletes last year, asking them for their suggestions. Only five of them took the time to reply. ●

ANNOUNCING THE NEW

RUNNER'S BOOK SERIES

The familiar Runner's Monthly Booklet Series has grown up . . . into the new Runner's Book Series. Each book will be at least 100 pages and will be published in paperback and hardcover. Here are the first six, to be published every two months starting in July:

DOCTOR SHEEHAN ON RUNNING

This book of advice and observations from medical columnist Dr. George Sheehan is philosophical, practical, thought-provoking and controversial. 99% of it has never been seen before by RW readers.

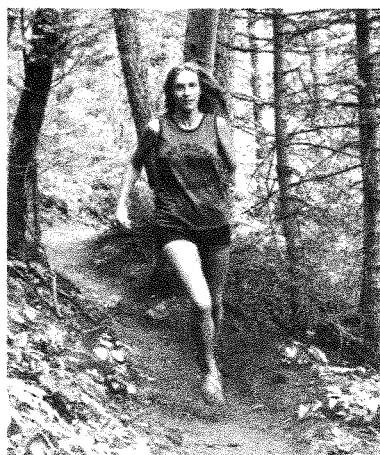


THE VAN AAKEN METHOD

"Run long, run daily, and don't eat like a pig," says Germany's famed doctor/coach. This new English translation gives you a proven system for both general good health and racing fitness.

ALWAYS YOUNG

George Young, 4-time Olympian in events from the steeplechase to the marathon, gives an inside view of the Games and shares the training methods and attitudes which made him a champion.



WOMEN'S RUNNING

Dr. Joan Ulyot is one of the fastest women marathoners in the world. Drawing on her experience as a runner and research physiologist, she tells women at all levels of the sport how to do it and get the most out of it.

THE LONG-RUN SOLUTION

Here, Joe Henderson tells how to stay happy with running. He summarizes research on running's benefits, ties in the experiences of runners which back up these claims, and gives suggestions for

more thoughtful running.

A SELF-MADE OLYMPIAN

Ron Daws says he made the Olympic marathon team not by out-running people, but by out-smarting them. Here, he gives away for the first time his secrets of clothing and shoe design, heat training, pacing, and other things most people ignore.



Subscribe to the whole series. You'll save money over the single copy prices—over \$6 on the paperbacks, and a whopping \$10 on the hardcovers.

ORDER FORM

Gentlemen: Please enter my subscription to the new Runner's Book Series in [] paperback—\$12.00 [] hardback—\$20.00.

Name _____

Address _____

City _____ State _____ Zip _____

Runner's Book Series, Box 366, Mountain View, CA 94040

RACING HIGHLIGHTS

NORTHEAST

● **Phil., Pa., Apr. 22**—Penn Relays marathon: 1. Arthur Hall (Oakwood TC) 2:27:32; 2. Carl Bechdel (Penn. State) 2:29:24; 3. Frank Goldcamp (Sports East) 2:30:08; 4. Dave Patterson (W. Chester TC) 2:30:57; 5. Ray Gubbins (Rutgers) 2:32:22; 6. Pete Kelly 2:32:59...10. Joe Burns (40+, Millrose AA) 2:41:39...49. Eileen Disken (Roadrunners) 3:37:31. (54 finished, 31 under 3:00, 47 under 3:30.).

● **Yonkers, N.Y., Apr. 27**—10,000 meter East. Reg. AAU; 1. Tony Colon (23, Manhattan College AA) 32:12; 2. Mike Keogh (23, NYAC) 32:12; 3. Tim Weaver (20, Fordham U AA) 32:36; 4. John Jurgens (21, Fordham U AA) 32:36; 5. Gene McCarthy (20, Fordham U AA) 33:15...17. David Camarades (16, Fairfield Co. Str.) 34:45...24. Joe Burns (46, Millrose AA) 35:10...46. George Haller (50) 38:41...110. Stanley Newhouse (65, Scarsdale Ant.) 59:06. Teams: 1. Fordham U AA, 21 pts.; 2. Central Park TC, 41 pts. Women: 1. Nancy Lindsay (25) 42:08. (119 finished, 21 under 35:00, from Joe Kleinerman).

● **New York, N.Y., May 10**—10,000-meter: 1. Charlotte Lettis (26, Sugarloaf Mt. AC) 35:56; 2. Jacki Hansen (26, San Fernando Valley TC) 36:03; 3. Brenda Webb (20, Kettering Strid.) 36:48; 4. Karen MacHarg (26, Kettering Strid.) 37:07; 5. Doreen Ennis (18, Nutley TC) 37:19; 6. Jenny Tuthill (27, Liberty AC) 37:36; 7. Robin Welker (28, Seacoast Strid.) 37:41; 8. Marie Kastrup (17, Kettering Strid.) 37:50; 9. Debby Mueller (15, Liberty AC) 38:00; 10. Margaret Rosasco (27, Liberty AC) 38:02; 12. Joan Benoit (17, Liberty AC) 38:03; 13. Cathy Shrader (16, Electric City) 38:05; 14. Carol Corlon (16, Nutley TC) 38:21; 15. Ileana Hocking (16, Puerto Rico) 38:43; 16. Lydia Gonzalez (14, Puerto Rico) 38:49; 17. Kathy Switzer (28, Central Park TC) 38:52; 18. Marilyn Bevans (25, Baltimore RR) 39:09; 19. Wende Pusch (15, Syracuse Chargers) 39:20. 20. Roberta Anthes (20) 39:26...36. Toshika D'Elia (45, NJ Senior Strid.) 41:44. Teams: 1. Kettering (Ohio) Strid. 15 pts.; 2. Liberty (Mass.) AC, 26 pts.; 3. Nutley (N.J.) TC, 57 pts. (276 finished, 24 under 40:00, 69 under 45:00, 132 under 50:00).

● **Yonkers, N.Y., May 11**—Yonker's marathon: 1. Marty Sudzina (23) 2:27:37; 2. Karl Mueller (39, Central Park AC) 2:40:13; 3. Bill Martin (20, Oteora RC) 2:41:35; 4. Michael Konig (29, Central Park TC) 2:42:04; 5. Dave Blackstone (34, Central Park TC) 2:42:53; 6. Dave Senechalle (34, St. Anthony's Boys Club) 2:43:24; 7.

William Gordon (40, St. Anthony's Boy's Club) 2:46:16; 8. Al Meehan (31, Millrose AA) 2:46:47; 9. Joe Burns (45, Millrose AA) 2:46:51; 10. William Cook (20, East Rock TC) 2:47:01...51. Bob Muller (50, Prospect Park TC) 3:21:45. Teams: 1. Central Park TC, 11 pts.; 2. Millrose AA, 29 pts. (103 finished, 21 under 3:00, 71 under 3:30, 101 under 4:00; from Joe Kleinerman).

● **Bronx, N.Y., May 18**—Bronx Co. Historical Society 5-mile: 1. Pete Squires (24, N.Y. A.C.) 25:23; 2. Steve Crooke (19) 25:39; 3. Françoise Wullmier (21, Swit.) 25:42; 4. Ron Veneman (20, N. Jersey St.) 25:51; 5. Mike Cotton (16, Fairfield Co. Str.) 26:09...33. Dan Dougherty (46, Staten Island AC) 30:46...36. George Haller (50) 31:00...54. Nancy Lindsay (25, McBurney Y) 33:06. (114 finished, 28 under 30:00; from Joe Kleinerman.)

● **Alexandria, Va., May 19**—Nat. AAU 15-kilometer: 1. Hamilton Amer (Greater Boston TC) 46:56; 2. Will Rodgers (GBTC) 46:58; 3. Gareth Hayes (N. Caroline TC) 47:27; 4. Bernie Allen (WSC) 47:35; 5. Mark Covert (San Fernando Valley TC) 47:44; 6. Scott Graham (GBTC) 47:51; 7. Steve Hamieu (WSC) 47:53; 8. Don Jayroe (NCTC) 48:04; 9. Jack Mahurin (NCTC) 48:18; 10. Ed Hereford (NCTC) 48:18; 11. Carl Hatfield (W. Va. TC) 49:02; 12. Russel Pate (Columbia TC) 49:19; 13. Bruce Robinson (WSC) 49:47; 14. Phil Stewart (WSC) 50:00; 15. Ned Jones (NCTC) 50:14. Teams: 1. North Carolina TC; 2. Washington SC; 3. Greater Boston TC, (from Stuart Brahs).

SOUTHEAST

● **Louisville, Ky., Apr. 28**—Derby Festival 13-mile: 1. Heinz Wiegand 1:07:35; 2. Don Noe 1:09. (518 started; from Ken Combs).

● **Knoxville, Tenn., May 3**—Southern Regional One-hour Championship: 1. Kenneth Winn (37, Atlanta TC) 10m 1373y; 2. Robert Godwin (33, Knoxville TC) 10m 440y; 3. Arthur Perkins (44, Knoxville TC) 9m 1313y...9. Lloyd Lundin (55, Knoxville TC)...12. Joe Shepherd (60, Knoxville TC)...28. Peggy Birmingham (27, Jackson Joggers) 7m 333y. (33 finished, 8 over 9 miles; from Hal Canfield).

● **Chattanooga, Tenn., May 3**—Chattanooga Chase 4.9-mile: 1. Wayno Riley, Karl D. Santos (Atlanta TC) 26:15; 3. Jerry Graham (Chatt. TC) 26:48; 4. Tom Potter (Bryan Coll.) 26:51; 5. Doug Hawley (34, Chatt. TC) 27:49;...45. Jon Robere (61, Chatt. TC) 35:12...51. Sue Ann Herring (Chatt. TC) 37:11...52. Jimmy Beach (8, Chatt. TC) 39:12. (62 finished; from Heinz Wiegand).

MIDWEST

● **Des Moines, Ia., Apr. 26**—Drake Relays marathon: 1. Luciano Rosa (Wisc.-Park.) 2:18:57; 2. Dennis Delmott (Emporia St. TC) 2:21:10; 3. Patrick Rupel (Air Force) 2:23:51; 4. John Perry 2:26:49; 5. Jeff Ford (Air Force) 2:27:07; 6. Dave Chilko (Moorhead St.) 2:28:06; 7. Peter Elliot (U. of Chic. TC) 2:29:28; 8. Brian Claxton 2:30:18; 9. Michael Seaman 2:30:31; 10. William Reding 2:30:44...155. Doreen Mowers 3:47:29. (172 finished, 76 under 3:00, 133 under 3:30, 161 under 4:00; from Mike Henderson).

● **Evanston, Ill., Apr. 26**—Central AAU One-hour run: 1. Gary Barrett (25, Club North Shore) 11m 1104y; 2. Vic Krol (22, DePauw Univ.) 11m 331y... Archie King (17) 10m 1060y... Al Brodzik (40+, UCTC) 10m 602y... Luke Steele (50+, Evanston TC) 8m 1220y.

● **Aurora, Ill., Apr. 26**—Aurora Running Club 6-mile: 1. Eric Thornton (Wing Foot Club) 32:10; 2. Dave Gashaw (19, Wau bonsee RC) 33:39... Rich Czarapata (40+) 37:20... Mary Czarapata 41:05.

● **Terre Haute, Ind., May 10**—Eastern Express 20-kilometer: 1. Bill Gavaghan (23, Ind. Striders) 1:04:41; 2. Duane Gaston (23, Kettering Striders) 1:05:07; 3. Bill Meece (19) 1:08:22; 4. Gary Barrett (26) 1:08:26; 5. Bob Kannerberg (21, Wabash Valley Pacemakers) 1:09:39...24. Robert Lamont (44, Wabash VP) 1:22:14...25. Lora Cartwright (13, Fort Wayne Pal Cinderettes) 1:22:16...36. Elver Gaston (51, Kettering Striders) 1:26:51. (75 finished, 5 under 1:10; 20 under 1:20).

● **Columbia Station, Ohio, May 10**—10-mile: 1. Felix Rendina (24) 54:25; 2. Jeff Radak (19) 57:41; 3. Bob Best (19) 57:41...15. Dick Culp (44) 1:04:38...25. John Trojan (55) 1:11:17...26. Mary Brinish (17) 1:15:15. (35 finished; from Brian Blue).

● **Madison, Wisc., May 17**—Syttende Mai 20-mile run: 1. Steve Hoag (28, Twin Cities TC) 1:44:46; 2. Tom Hoffman (27, U. of Chicago TC) 1:49:14; 3. Gary Barrett (26) 1:49:36; 4. Tom Slater (23, Kegonsa TC) 1:52:46; 5. Jim Berka (23) 1:54:31; 6. Dennis Spars (28) 1:55:51; 7. Shawn Flanagan (20) 1:56:38; 8. Don Fass (20, Kegonsa TC) 1:56:38; 9. Dale Roe (27, Kegonsa TC) 1:57:02; 10. Mike Braun (21) 1:57:20...34. Lloyd Bostian (43, Vilas RC) 2:13:32...59. Merle Knox (53, UWMTTC) 2:21:07...62. John Archer (60, UWMTTC) 2:21:07...63. Peggy Stafford (27) 2:39:35 (196 finished, 13 under 2:00, 52 under 2:20; from Lee Wilcox).

● **Aurora Ill., May 17**—Masters AAU 20-kilometer: 1. Al Brodzik (40+) 1:13:15...4. Harry Roberts (50+) 1:21:30... Mary Czarapata 1:30:21...20. Jack Bolton (60+) 1:44:40. (from Richard Collins).

● **Aurora, Ill., May 17**—Six-mile: 1. Ed Steingraber (19, Downers Grove) 32:02; 2. John Lechner 32:25...10. Richard Czarapata (40+) 37:40...16. Mary Czarapata 43:50. (22 finished; from Richard Collins).

● **Hoover Dam, Ohio, May 18**—Ohio River Road Runners 25-kilometer: 1. Brad Frawley 1:29:19; 2. Dan Sekerak 1:30:01; 3. Craig Harms 1:30:29; 4. Mark Cocker 1:30:44; 5. Dana Moesner (17) 1:32:07...13. John Merola (43) 1:42:44. (23 finished, from Felix Le Blanc).

● **Hoover Dam, Ohio, May 18**—Ohio River Road Runners 6-mile: 1. Duane Gaston 32:43...4. Jim Sorah (15) 38:49...7. Elver Gaston (51) 39:50...11. Laura Craven (10) 43:28. (from Felix Le Blanc).

● **Milwaukee, Wisc., May**—Univ. of Wisc. 10-mile: 1. John Miller 54:54; 2. Jim Samuelsen 56:19; 3. Larry Ridgeway 56:33... Duane Holz (40+) 58:28... Mary Czarapata 68:57. 5-mile: 1. Rich Kocaja 28:27; 2. Don Czarapata, Sr. 29:09. (from Richard Czarapata, Sr.).

SOUTHWEST

● **Austin, Tex., Apr. 5**—Texas Relays marathon: 1. Mike Matheny 2:36:51; 2. Dennis Manske 2:40:40; 3. Richard Adams 2:42:02; 4. Quirino Caro 2:46:56; 5. Edwin Jerome 2:47:20; 6. John Weinstein 2:48:50; Al Bechen (40+) 2:51:50...17. Dorothy Doolittle 3:08:42...18. Charles Merkelz (50+) 3:15:35. (29 finished, 9 under 3:00, 21 under 3:30, 24 under 4:00; from Jim Cawley).

● **San Antonio, Tex., Apr. 26**—Mission Run 10-kilometer: 1. Jim Garza (21) 33:58; 2. Mike Albert (20) 34:33; 3. Jim Ewing (36) 34:39...11. Mark Hebron (18) 37:07...12. Jim Tenny (46) 37:19...27. Dorothy Doolittle (27) 40:25...30. Charles Merkelz (53) 40:45...124. Paul Daily (71) 59:56. (137 finished; from Ken Bashore).

● **Dallas, Tex., May 3**—10.8-mile: 1. David Odum (25) 1:03:58; 2. David Bussiere (26) 1:07:19; 3. Richard Widener (48) 1:08:11...10. J.B. Outlaw (56) 1:11:56...24. Sally Schaefer (28) 1:29:59. (27 finished).

● **Tulsa, Okla., May 10**—Tulsa Running Club's One-Hour: 1. Larry Aduddell (29) 11m 306y; 2. Larry McDonald (20) 10m 920y; 3. Lanny Endicott (31) 10m 364y; 4. Tom Kempf (50) 9m 174ly...30. Nadine Johnson (36) 5m 1472y.

ROCKIES

● **Littleton, Colo., Apr. 27**—RMRR 20-mile: 1. Ed Bingham (26, CTC) 1:52:30; 2. John Bramley (CSU) 1:56:45; 3. Wes Crist (26, FCTC) 1:58:12...11. Tom Bailly (45) 2:15:32. (31 finished, 13 under 2:20; from Dennis Kavanaugh).

WEST

● **Los Angeles, Cal., Apr. 13**—NAAU 50-kilometer: 1. Carl Swift 2:52:54 (2:26:20 marathon); 2. Don Ocana 3:00:31 (2:29:01); 3. Gordon Haller 3:07:10 (2:38:54); 4. Wayne Akiyama 3:09:14 (2:38:54); 5. Bob Branch (29, CCAC) 3:09:16 (2:41:10); 6. Paul Cook (AIA) 3:10:39 (2:39:58) 7. James Perez (28, AZTL) 3:11:29 (2:40:15); 8. Ron Calderon (AZTL) 3:12:44 (2:40:30); 9. Carlos Alfaro (34, AZTL) 3:15:38 (2:40:14); 10. David Mitchell 3:16:33 (2:45:33); ...15. Dave Parker (44, STC) 3:21:14 (2:48:13); 15. Robert Greene (40+) 3:22:13 (2:48:45)...18. Conrad Eroen (45, STC) 3:24:40 (2:50:57)...23. Ed Almeida (50+, SDTC) 3:37:23 (2:52:21) ...44. John Montoya (63, STC) 4:18:54 (3:28:19). Teams: 1. Aztlan TC, 12 pts.; 2. Culver City AC, 15 pts.; 3. Golden West AA, 29 pts. Veterans: 1. Seniors TC, 7 pts.; 2. San Diego TC, 15

pts.; 3. Culver City AC, 24 pts. (47 finished, 35 under 3:30 for 50-km., 37 under 3:30 for the marathon).

● **Arcata, Calif., Apr. 20**—One-hour run: 1. Mark Dulaney 11m 117y; 2. Ron Elijah 11m 117y...25. Teresa Jenkins 7m 770y. (27 finished).

● **Camarillo, Calif., Apr. 27**—15-kilometer: 1. Gary Tuttle (27, BHS) 46:30; 2. Reid Harter 48:31; 3. Mark Covert 49:48; 4. Bob Branch (29, CCAC) 50:11; 5. Brook Thomas (SBAA) 50:18...17. Dick Bartek (40+, SBA) 53:43 ...54. John Montoya (63, STC) 1:05:14...60. Angela Johnson 1:07:26. (96 finished).

● **Seattle, Wash., May 3**—Pac. NW—AAU 30-kilometer: 1. Reuben Dias (29, Snohomish TC) 1:44:24; 2. Matthew Henderson (25, Ft. Steiocomm RC) 1:49:37...7. Derek Mahaffey (40, STC) 1:56:30; 8. Loyd Case (19) 1:57:44...22. Norman Bright (65, STC) 2:14:05...26. Helen Spiegelman 2:15:37. (38 finished, 11 under 2:00; from Paul Bernstein).

● **Portland, Ore., May 3**—ORRC Hagg Lake 10.4-mile: 1. Gary Purpura (25) 53:25; 2. Tony Keller (19) 56:06; 3. Bruce Mortensen (31) 56:50...24. Bob Ferguson (41) 1:08:37...25. Marilyn Paul (37) 1:09:01...42. Alvin Grahn (58) 1:15:58. (81 finished, from Robert Paul).

● **Eielson Air Force Base, Alaska, May 3**—10.2-mile: 1.

Tiff Vincent (22, Univ. of Alas.) 1:00:30; 2. Scott Taylor (15, E. Lathrop H.S.) 1:01:15; 3. Paul Vanture (40, Running Club, N.) 1:01:56...13. Orvie Quinn (51, Eielson AFB) 1:10:58...17. Carol Coe (13) 1:19:25. (60 finished; from Paul Vanture).

● **Saratoga, Calif., May 5**—Knights of Columbus marathon: 1. Ron Wayne 2:21:12; 2. Bob Coleman 2:37:14; 3. Tony Mezzapelli (San Jose State) 2:44:30; 4. Keith Kruse 2:47:55; 5. Jim Waters 2:52:00...Ulrich Kempf (40+) 3:01:10...Maryetta Boitano (12) 3:06:50.

● **Bakersfield, Calif., May 17**—Bakersfield Track Classic marathon: 1. Eddy Cadena (27) 2:38:58; 2. Allen Rude (25) 2:41:45; 3. Jim Jorgenon (22) 2:42:28; 4. Ken Stephens (33) 2:44:01; 5. Truman Clark (39) 2:52:09...17. Merlyn Midstokke (44) 3:11:42...28. Marie Albert (16) 3:45:15...29. Don Zarin (55) 3:52:32. (35 finished, 9 under 3:00, 20 under 3:30, 31 under 4:00; from Bob Nestor).

● **Bakersfield, Calif., May 17**—Bakersfield Track Classic 13.1-mile: 1. Charles Boatright (24) 1:15:44; 2. Alex Hinzo (18) 1:18:55...5. Jacki Hansen (26) 1:21:39...6. Sid Toabe (51) 1:23:23. (from Bob Nestor.)

● **San Francisco, Calif., May 18**—Bay-to-Breakers 7.8-mile: 1. Rick Rojas 37:18; 2. Domingo Tibaduiza 37:19; 3. Jim Nuccio 37:28; 4. John Farrington 38:49; 5. John Stanley 39:02;

6. Brian Maxwell 39:09; 7. Bill Clark 39:45; 8. Lewis Patterson 39:59; 9. Pat Ryson 40:04; 10. Jim Birnbaum 40:18; 1. Darryl Beardall 40:19; 12. Bill Morgan 40:20; 13. Ben Tucker 40:21; 14. Robert Branch 40:24; 15. Bill Seaver 40:30; 16. Jonathan Sutherland 40:33; 17. Albert Thomas 40:34; 18. Tom Wysocki 40:37; 19. John Wagner 40:39; 20. Pat Finn 40:40; 21. Eugene Fitzgerald 40:48; 22. Bob Darling 40:49; 23. Doug McLean 40:50; 24. Jack Leydig 40:51; 25. Dennis Tracy 40:53...80. Peter Wood (40+) 43:29...186. Maryetta Boitano (12) 46:04...195. Peter O Mattei (50) 46:19...309. Debbie Finn 49:04...384. Carolyn Tiernam 49:46. (over 5,000 finished, 130 under 45:00, 420 under 50:00).

● **Oakland, Calif., May**—Holy Names College 10,000-meter: 1. Dennis Tracy (WVTC) 31:27; 2. John Kleinback 32:00; 3. Gary Worfram 32:03; 4. Richard French 32:24; 5. David Whiteing 32:35...8. Gordon Gane (40+, WVJ & S) 33:47...67. Carolyn Tiernan 38:22...101. Ruth Anderson (40+, Nor-Cal Senior) 40:35. (263 finished, 19 under 35:00).

CANADA

● **Saskatoon, Saskatchewan, May 10**—Canadian National 10-mile: 1. Peter Moore (27, Edmonton Olympic) 52:56; 2. Al Kimick (26, Canadian Armed Forces)



Kitchener-Waterloo, Canada

OKTOBERFEST

4th
Annual

MARATHON

CERTIFIED 26 MILES 385 YARDS; COURSE RECORD 2 HR. 17 MIN. 50 SEC.

1975 CANADIAN NATIONAL CHAMPIONSHIP

SAT. OCT. 11, 1975

1:00 P.M.

ENTRY FEE \$3.00

- * Closed Course. Scenic rolling country route by two rivers and covered bridge.
- * AWARDS: Canadian National, Canadian Masters, Oktoberfest Open, Masters & Womens.
- * Awards presentation ceremony.
- * For entry form write to: Race Director, P.O. Box 382, Waterloo, Ontario, Canada. Closing date Oct. 4th.
- * Bring the Family: 1½ mi. kinderjog—5 mi. bierdoktor's jog—3 mi. women's jog.

Highlights

54:44; 3. Phil Davis (29, Saskatoon T&F) 55:25; 4. Brian Spellman (21, Plastic Ono Track) 56:21; 5. Michael Graham (26, University of Saskatchewan) 58:45...11. Rob Dumalanede (41, Calgary Road Runners) 1:03:54...13. Bob Reindl (16, Riversdale T&F) 1:05:43...19. Gail Gislason (16, Edmonton Olympic) 1:09:58...27. Roy McKenzie (57, Regina YMCA) 1:19:25. (34 finished, 7 finished under 1:00). (from Phil Davis)

INTERNATIONAL

● **Roturua, New Zealand, Apr. 25**—Fletcher marathon: 1. Jack Foster 2:18:32; 2. Mike Ryan 2:19:44. (from Dennis Kenny).

WALKS

● **West Long Branch, N.J., Apr. 20**—Nat. AAU 75-kilometer walk: 1. Dr. Shaul Ladany (LIAC) 7:22:20; 2. Danny O'Connor (NYAC) 7:39:49; 3. Bill Walker (Motor City Striders) 7:48:03; 4. Tom Knatt (North Medford Club) 8:07:47; 5. Alan Price 8:17:41; 6. Tom Ambury (US USMMA) 8:27:47; 10. Don Johnson (50+, Shore AC) 8:54:17. Teams: 1. Shore AC (Friedricks, Johnson, Falcicola). (14 finished).

● **Ottawa, Ontario, Apr. 26**—Ottawa Kinsmen Harriers 20-kilometer walk: men: 1. Marcel Jobin (CAMN) 1:37:35; 2. Alex Oakley (GAC) 1:38:37; 3. Patrick Farrelly (HOC) 1:38:43. Women: 1. Terry Lalonde 2:15:44.

● **Seattle, Wash., May 3**—PNW-AAU 20-kilometer walk: 1. James Bean (27, Monmouth TC) 1:40:27; 2. Peter Banko (27, STC) 1:45:51; 3. Paul Kaald (42) 2:05:39. (from Paul Bernstein.)

● **Columbia, Mo., May 3**—Missouri Cup 20-kilometer walk: 1. Augie Hirt 1:41:59. 2. Larry Young 1:44:01; 3. Al Schrick 1:47:39; 4. Leonard Busen 1:56:55. (from Joe Duncan).

● **Seaside Heights, N.H., May 4**—10-mile walk: 1. John Knifton (NYAC) 1:17:29; 2. John Fredericks (Shore AC) 1:19:23; 3. Bob Falcicola (Shore AC) 1:21:38. Teams: 1. Shore AC. (23 finished.)

● **Portland, Ore., May 4**—Nat. Jr. 15-km. walk: 1. Mike Young (Colo. TC) 1:25:49; 2. Scott Massinger 1:27:08; 3. Dan Pierce 1:27:55; 4. Brian Conway (Linfield College) 1:32:57; 5. Brad Bentley (Beverly Hills St.) 1:42:30; 5. Steve Bently (10, BHS) 1:52:13; 7. Greg Bently (12, BHS) 1:56:49. (Don Jacobs.)

● **Houston, Tex., May 4**—Gulf AAU 10-kilometer: 1. Ron Mucci 54:32; 2. John Evans (Terlingua TC) 58:40. ●

AUGUST COMING EVENTS

NORTHEAST

- 2-3 Nat. AAU Relays, Phil., Pa.
- 2 Littleton 10-Mile and 5-Mile Junior, Littleton, NH. (North Country Athletic Club; P.O. Box 11, Littleton, NH 03561).
- 3 Fort Stanwix Days—20-km., Women's 5-km., Rome, N.Y. (9:30 am.; Dee Howell, Rome Family "Y", 301 W. Bloomfield St., Rome, N.Y. 13440).
- 3 NE-AAU Jr. 10-km. Run, Warren, R.I. (Fred Brown, Sr., 157 Walsh St., Medford, Mass. 02155).
- 7-11 Nat. AAU Jr. Olympics T & F, Ithaca, N.Y.
- 8-11 Jr. Olympic Track, Ithaca, N.Y.
- 9-10 24-Hour Relay, 50-Mile, and 50-Mile Walk. (Marylyn Mathews, 895 N. Ky. St., Arlington, Va. 22205).
- 11 Presque Isle Marathon, Erie, Pa., (7 am., John O'Sullivan Gould, Downtown YMCA, 31 West 10th St., Erie, Pa. 16501).
- 17 10-Mile North Kingstown, R.I. (2 pm.; George Silva, 82 Fowler St., N. Kingstown R.I. 02852).
- 17 100-Mile, Queens, N.Y. (Road Runners Club, P.O. Box 881, FDR Station, N.Y., N.Y. 10022).
- 18 15-km., Washington, D.C. (7:15; Marylyn Mathews, 895 N. Kentucky St., Arlington, Va. 22205).
- 24 P.R. Hispanic 13.1-Mile, N.Y., N.Y. (Central Park, Road Runner's Club, P.O. Box 881, FDR Station).
- 24 NE-AAU Silver & Masters 15-km., Haverhill, Mass. (Fred Brown, 157 Walsh St., Medford, Mass. 02155).
- 31 15-km., Washington, D.C. (6:30; Marylyn Mathews, 895 N. Kentucky St. Arlington, VA 22205).

SOUTHEAST

- 9 Mid-South 5-Mile Classic, Memphis, Tenn., (Overton Park; noon; Shields Hood, P.O. Box 161325, Memphis, Tenn. 38116).
- 15 Greensboro to Winston-Salem Marathon, Greensboro, N.C. (6 am.; Scott Brent, 2725 Brightwood Ct., Winston-Salem, N.C. 27107).
- 16 Dilworth Jubilee 6-Mile Women's 3-Mile, Charlotte, N.C. (11 am.; Matt Heyd, 1652 Dilworth Rd., West, Charlotte, N.C. 28203).

MIDWEST

- 2 Andy Payne Marathon, Weatherford, Okla. (6 am.; Recreation Special Events,

Weatherford Chamber of Commerce, P.O. Box 729, Weatherford, Okla. 73096).

- 3 Omaha Marathon, Omaha, Neb. (7 am.; Bob Lozeau, Omaha Mar., 1620 Dodge, Omaha, Neb. 68102).
- 3 USTFF Nat. 10-Mile & Women's 3-Mile, Cudahy, Wisc. (8 am.; Wolf Koehler, N 115 W 16517 Knight Dr., Germantown, Wisc. 53022).
- 3 Indiana AAU 20-km., South Bend, Ind. (10 am.; Steve Kearney, 205 W. Porter Ave., Chesterton, Ind. 46304).
- 7 Mich. AAU Champ. 3-Mile, Detroit, Mich. (Belle Isle, Edward Kozloff, 10144 Lincoln, Huntington Woods, Mich.).
- 9 Paavo Nurmi Marathon, Hurley, Wisc. (8 am.; Hurley Chamber of Commerce, 203 Silver St., Hurley, Wisc. 54534).
- 9 Oklahoma AAU 15-km., Tulsa, Okla. (7 am.; Mohawk Park, Vern Whiteside, 6916 S. Knoxville Ave., Tulsa, Okla. 74136).
- 16 Nat. AAU Jr. Men's Outdoor, Chicago, Ill.
- 16 Fartlek-Cross Country Race, Brooklyn, Mich. (Phil Gross, Sauk Valley Farms, Brooklyn, Mich. 49230).
- 23 Steve Smith Mem. 10-Mile, Hopkins, Minn. (Pat Lanin, 234 N. Seventh Ave., Hopkins, Minn. 55343).
- 23 Young at Heart Festival 10-mile, Loves Park, Ill. (Harlem Marathon Club, 5425 Bennett St., Loves Park, Ill. 61111).
- 30 Minn. AAU 20-km., St. Paul, Minn. (Ed Arenz, 2012 Knapp, St. Paul, Minn. 55108).
- 31 North Shore Marathon, Lake Bluff, Ill. (7 am.; Wendell Miller, 351 Berkdale Rd., Lake Bluff, Ill. 60044).
- ? Quincy Marathon, Quincy, Ill. (Steve Goers, 2501 Katherine Rd., Quincy, Ill. 62301).

ROCKIES

- 8 USTFF Nat. 15-km., Littleton, Colo. (9 am.; Joe Arrazola, 1405 Florence St., Suite B, Aurora, Colo. 80010).
- 3 Pikes Peak Marathon, Colorado Springs, Colo. (7:30 am.; open; Rudy Fahl, Mgr., 2400 West Colorado Ave., Colorado Springs, Colo. 80904).
- 9 Baer Gutsman 10-Mile, Kaysville, Utah. (7 am.; Jan Cheney, Beehive TC, 289 So. 200 E., Kaysville, Utah 84037).
- 24 Big Mac 15-Mile, Boulder, Colo. (9 am.; open; Mike

Service, 9010 Camenish, Westminster, Colo.).

WEST COAST

- 1 Nat. AAU Jr. One-Hour, Anywhere on a Track. (John Brennand, 4476 Meadowlark Lane, Santa Barbara, Cal. 93105).
- 1 Nat. AAU One-Hour, Anywhere on a Track. (John Brennand, 4476 Meadowlark Lane, Santa Barbara, Cal. 93185).
- 2 Resurrection Pass Trail Mar. Hope, Alaska. (10 am.; John Trent, Pulsators RC, 1700 Tudor Rd., Anchorage, Alas. 99507).
- 16 Seaside Beach Run, Seaside, Ore. (1:00 pm.; open; Ralph Davis, 3145 N.E., 47th, Portland, Ore. 97213).
- 24 Santa Monica Marathon, Santa Monica, Cal. (7:30 am.; Santa Monica College Stadium, Santa Monica Rec. & Parks Dept., 1685 Main St., Room 202, Santa Monica, Cal. 90401).
- 24 Dipsea 6.8-Mile, Mill Valley, Cal. (10 am.; bus depot; Dipsea Race Chairman, Mill Valley Jaycees, P.O. Box 30, Mill Valley, Cal. 94941).

CANADA

- 2 Canadian Mara. Champ., Pre-Olympic Mara., Montreal, Quebec. (5:30 pm.; Dr. Ron Wallingford, c/o Laurentian University, Division of Physical Education, Sudbury, Ontario).
- 16 Eastman 10-Mile, Eastman, Quebec. (7 pm.; Rejean Lavoie, C.P. 38, Eastman, Quebec).
- 17 W.C.G. Marathon, Regina, Saskatchewan. (Tentative; Lloyd Culham, 4616 Argyle St., Regina, Saskatchewan).
- 31 Nova Scotia Marathon, Dartmouth, Nova Scotia. (Randy Barkhouse, Box # 202, Dartmouth, Nova Scotia, Canada).
- 31 St. Vital Marathon, Winnipeg, Manitoba. (St. Vital Park, Steve Gajerski, 47 Royal Salinger Rd., Winnipeg, Manitoba).

RACE WALKS

- 7-9 National AAU Masters 5-Im. Walk, White Plains, N.Y.
- 7-9 National AAU Masters 20-Km. Walk, White Plains, N.Y.
- 31 National AAU Class B 15-Km. Walk, Mackinac Island, Mich.

LOOK NIKE SECONDS*



FINLAND BLUE KENYA RED	LIGHT NYLON UPPERS AND FULL CUSHION SOLE TO FILL TWO NEEDS IN ONE. SIZES 3 - 13	14.95
MARATHON	NYLON RACING FLAT, SOFT CORDO-CREPE OUTSOLE FOR TOPFLIGHT RACING ON ALL SURFACES. SIZES 6½ - 13	10.95
CROSS COUNTRY	WHITE CANVAS RACING FLAT WITH MARATHON OUTSOLE. SIZES 7½ - 11½	5.50
PRE-MONTREAL	PREMIER RACING SHOE FOR USE ON SYNTHETIC TRACKS ONLY SIZES 5 - 13	24.95
AMERICAS	LIGHTWEIGHT RED NYLON UPPER IS THE MOST POPULAR OF THE NIKE SPIKES. SIZES 3 - 13	18.95
INTERVALLE	BLUE NYLON UPPER, A SPONGE RUBBER HEEL WEDGE, A POPULAR TRAINING AND RACING SPIKE. SIZES 3 - 13	15.95
CANADA QUICK 4	BLUE SUEDE UPPER ON A VERSATILE 4-SPIKE PLATE. SIZES 3 - 13	12.95
NOVA	WHITE LEATHER UPPER, HEEL CUSHION, FULL LENGTH FOAM INNERSOLE FOR COMFORT AND PROTECTION. SIZES 3 - 13	11.95
RED BRUIN	AN OFF COLOR RED SUEDE UPPER. A GOOD SHOE FOR BASKETBALL, TENNIS AND LEISURE. SIZES 3 - 13	13.95

* 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:

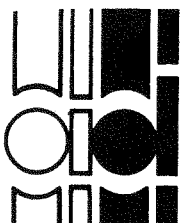
the athletic department

P. O. BOX 743

BEAVERTON, OREGON 97005

503/ 643 - 4732 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

THREE HOURS

When 2000 people crowd Hopkinton High School and are packed into a two-lane country road (at the start of the Boston marathon), the majority of them—including most of the sub-three-hour men—suffer for it. A 3:00 limit will enable those who have done the work to enjoy the day a bit more.

It doesn't really take much to run 3:00. It can be done by some on 20 miles per week. Fifty miles per week should do it for most. But the 3:30 man, or even the 3:10 man who runs 20-30 miles per week, isn't a "marathoner." The Boston marathon is a race for marathoners.

It isn't hard to break 3:00. Ten-year-olds, 68-year-olds and women have done it. Those who haven't done it should stand on the sidelines one day per year and yield the road to those who have put in the time and effort to reach the 3:00 goal.

*Hugh Sweeny
Jersey City, N.J.*

FUTURE HANDBOOKS

I would like to cast an opinion on your decision not to turn out any more *Marathon Handbooks*. I believe for many of us "pacer-type" runners with little chance of ever finishing upfront far enough to make *RW*, the prospect of recognition in a national volume like the *Handbook* was a pleasant thought.

I do hope you still find room for all the sub-3:00 and other lists that include the not-so-great.

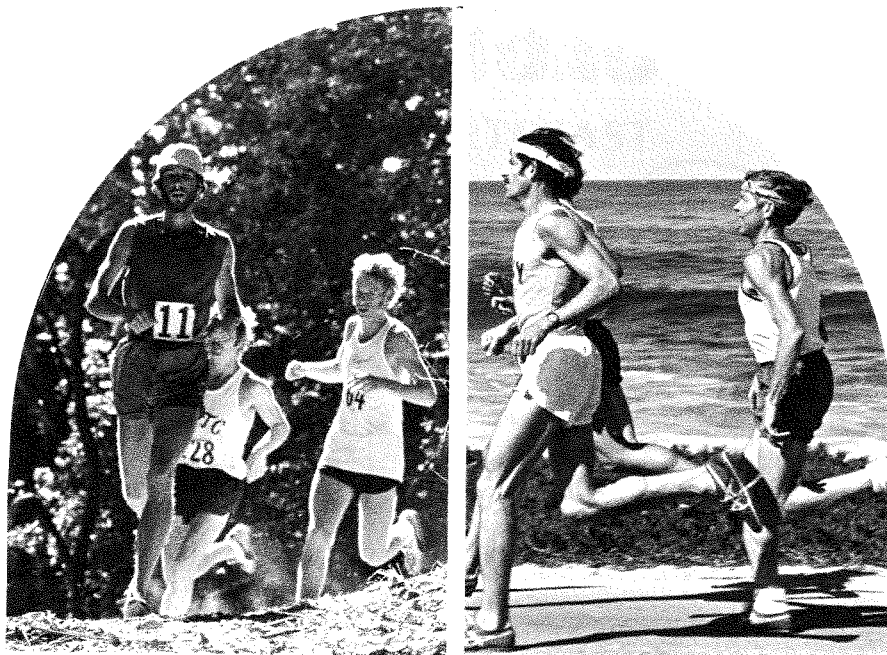
*Thomas Zownir
Cranston, R.I.*

*(There has been some confusion about the fate of the Handbook. The book will include exactly the same material as it has since 1970. The only difference is that it will be an insert in *RW*, going to subscribers at no extra cost.)*

LOVE IT

I don't care what Sid Gendin says ("The Like Affair," May 75), I love running. Why doesn't he approve of me? It's okay with me if he just sort of likes it. I don't go around impugning his motivation—though I do wonder how just sort of liking it can get a man to run daily for 100 straight weeks.

I may get his goat, but I just don't know how else to explain those moments of peace or exhilaration that don't come in quite the same way in other contexts.



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. 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 the 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?
 - What and how much should you drink during a race?
 - Should I train for endurance or 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 _____

Second Annual
*Presque
Isle
Marathon*

Erie, Pennsylvania
Sunday, August 10, 1975
7:00 a.m.

- AAU Sanctioned
- Trophies, Medals
- T-Shirts To All Starters

2 laps of 13.1 miles each
over absolutely flat, traffic free
Presque Isle.

Open, Women and Age
Group Awards, no duplication.
Post race awards ceremony.

Contact: Thom Bennett
Downtown YMCA
31 West 10th Street
Erie, PA 16501



The Lydiard Marathon is a revolutionary running shoe. Specially designed for fast road racing, it gives the unique sensation of totally-supported barefoot running. Special soft, supple, lightweight uppers and thin but well-padded soles provide this welcome comfort and support. The soles feature a unique concave design that matches foot shape. Sure to be a favorite with all serious road racers! Available in sizes 7½ through 11, \$32.95 postpaid.



LYDIARD MARATHON



Send me _____ pair of Lydiard
Marathons, size _____ @ \$32.95
per pair plus \$2.00 postage. Cal. residents
add 6% tax. Send tracing of your foot.

Name _____

Address _____

City/State/Zip _____

STARTING LINE SPORTS
Box 8, Mountain View, CA 94040

To say I love it may not explain very much, but then he isn't so enlightening either.

Sid says he senses that "most competitive runners have all kinds of conflicts." So do I. Why not use competitive running to try to work them out? It does less harm than, say, running for president.

*Victor Altshul, M.D.
New Haven, Conn.*

CARBOHYDRATES

As a recent convert to carbohydrate-loading, it soon became apparent to me that I knew too little about the compositions of foods to be certain I was reaching my full (limited) marathon potential. Critical decisions such as whether or not to include ice cream as part of a carbohydrate load could not be made with the confidence which my pre-race butterflies required.

I was delighted, therefore, to find a readily available, remarkably complete document which answers these questions clearly. It is entitled *Composition of Foods: Raw, Processed, Prepared*, Agricultural Handbook No. 8, and can be obtained for \$2.95 from the Superintendent of Documents, US Government Printing Office, Washington, D.C. 20402. The 190 pages include well-organized data on the composition of thousands of foods, from "abalone" to "zweiback" including their fat, protein, carbohydrate, mineral and vitamin content.

*Harry Daniell, M.D.
Redding, Calif.*

IN HARMS' WAY

Ed Steingraber asks why Craig Harms ran five marathons in a month ("Reader's Comments," May 75). He further states that doing so is insane. He is highly critical of Harms' regimen, and goes on to brag about his own two marathon times of 2:31.

The answer to Steingraber's "why" is that Harms does it for training. Five long training runs in a month is about right.

On March 22, at about the time Steingraber was writing his critical letter, Harms won the National Track and Field Hall of Fame marathon in 2:23:23, (his best time by about seven minutes, which seems to justify his training system).

It bothers me to see this sort of (letter) in print about one runner by another runner. We get enough criticism from faties shouting "faster." Among runners, I rarely hear anything but encouragement about the way one performs and conducts his training.

*Jimmie Edwards
Toledo, Ohio ●*

**2nd ANNUAL NORTH SHORE
(CHICAGO)**

**LABOR DAY WEEKEND
MARATHON AND
HALF MARATHON**

Date: Sunday, August 31, 1975 -
7:00 a.m. sharp.

Route: Lake Bluff, Il, Jr. High School
(Sheridan Rd. & Route 176). 6.555
miles south through shaded, beautiful
Lake Forest—on asphalt surface. Out
and back course twice.

Divisions: High School, Open, 30-34, 35-
39, 40-44, 45-49, 50-54, 55-59, over 60.
Women's; High School, Open, 30-39, 40-
49, 50-59, over 60.

Prizes: 1st - 6th in each division.

AAU Sanctioned—certificates and re-
sults mailed to all finishers.

Housing: Free to out of state runners
upon written request by Saturday, Aug-
ust 23rd.

Entry Fee: Send \$2 check in advance,
payable to: Club North Shore, c/o Ron
Fox, 3272 Western Highland Park, Il.
60035

Phone: Wendell Miller (312) 234-5936
Mail deadline Friday Aug. 29, however
registrations accepted in person up to
6:30 a.m. on race morning — \$3.

**CHANGE OF
ADDRESS &
ORDER FORM**

If you're moving, please let us know three weeks in advance. Please include the following information: publications you subscribe to, your new address, and your old address. (You can also use this form to order new magazines: just write "new" in the space for your old address.)

- Runner's World (\$7.00/year)
- Bike World (\$7.00/year)
- Aquatic World (\$4.00/year)
- Nordic World (\$4.00/year)
- Soccer World (\$3.50/year)
- Down River (\$4.00/year)
- Self-Defense World (\$4.00/year)
- Gymnastics World (\$4.00/year)

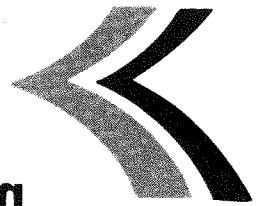
Name _____

Old Address _____

New Address _____

WORLD PUBLICATIONS
Box 366, Mountain View, CA 94040

BROOKS 270



One of the Finest Training and Jogging

Shoes Made. Available in 4 Colors.



You have waited a long time for a major United States sports shoe manufacturer to challenge the imports, and now you won't be disappointed. The quality of materials, workmanship and design, and the construction of the Brooks Drake are your guarantee of many miles of problem-free running.

THE DRAKE 270 (Blue with White Stripe)
SIZES: 4, 5, 6 to 12 including half sizes, and size 13.

- Lightweight nylon upper . . . strongest nylon available on any training shoe in the world.
- Suede leather reinforcement all around sides and toe.
- Special padding at heel and Achilles tendon area for comfort and support.
- Herringbone outsole design of tough rubber compound for maximum wear and traction.
- Heel to toe micro-cellular midsole, plus contrasting color wedge, absorbs road shock.
- Full outside counter pocket for better shape retention and heel support.

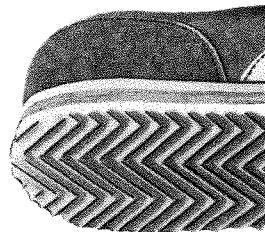
ONLY \$17.00 PER PAIR

Plus \$1.00 Handling Charge

THE DRAKE 270G (Gold with Black Stripe)
Same as 270 in Gold Nylon with Black Trim.
SIZES: 4, 5, 6 to 12 including half sizes, and size 13.

THE DRAKE 270R (Red with White Stripe)
Same as 270 in Red Nylon with White Trim.
SIZES: 4, 5, 6 to 12 including half sizes, and size 13.

THE DRAKE 270K (Kelly Green with White Stripe)
Same as 270 in Kelly Green Nylon with White Trim.
SIZES: 4, 5, 6 to 12 including half sizes, and size 13.



REPLACEABLE EXTRA HEELS INCLUDED.

Worn heel easily and quickly replaced by any shoe repairman.

USE COUPON TO ORDER



The ATHLETIC ATTIC

2415 N. Monroe St., Unit 203
Tallahassee, Florida 32301

Here's my order. . .

QUANTITY

SIZE

SHOE COLOR

270 (Blue with White Stripe)

270G (Gold with Black Stripe)

270R (Red with White Stripe)

270K (Kelly Green with White Stripe)

Send Brooks 270
Shoes to . . .

Enclosed is my check for \$ _____

NAME _____

ADDRESS _____

CITY _____

STATE _____

ZIP _____



**I recommend
Tiger Athletic Shoes
if you are eager to
break a record
like I did!**

B. JIPCHO

T-30 LEATHER SEMI RIPPLE

G-33 SPARTAN B



**OFFICIAL SUPPLIER
to The 1976 Montreal Olympic Games**

For more complete information and the name of your nearest dealer, call or write:

Curley-Bates Co.

860 Stanton Road, Burlingame,
Calif. 94010 (415) 697-6420
Washington, Oregon, California, Montana,
Idaho, Nevada, Wyoming, Utah, Colorado,
Arizona, New Mexico, Alaska, Hawaii &
El Paso

Davis, Inc., George A.

7205 Hibbs Lane, Levittown,
Pa. 19057 (215) 943-3300
Pennsylvania, New York, New Jersey,
Maine, Vermont, New Hampshire,
Massachusetts, Connecticut, Maryland,
Delaware, Rhode Island, Washington, D.C.,
Arlington & Alexandria

Olympic Sports

2607 National Circle, Garland,
Texas 75041 (214) 278-5402
Kansas, Oklahoma, Texas, Arkansas &
Louisiana

General Sports Corp.

c/o Demco (Dana E. Morrison Jr. Co.)
5121 N. Ravenswood Ave., Chicago,
Ill. 60640 (312) 561-0861
Ohio, Indiana, Illinois, Missouri, Wisconsin,
Iowa, North & South Dakota, Nebraska,
Minnesota & Michigan

Buckley & Co., Pete

650 Great Southwest
PKWY, Atlanta, Georgia, 30336
(404) 349-7220
Florida, Alabama, Georgia, Tennessee,
Kentucky, Virginia, North & South Carolina,
Mississippi and West Virginia

**"TIGER Wrestling Shoes — The World's Most popular Shoes —
Imported by Universal Resilite — "**

Universal Resilite 43 Polk Avenue, Hempstead L.I. New York 11550
PHONE: (516) 483-3700

E.R.G.



When the going gets tough, heat's the enemy. Heat upsets the body's delicate system of balances and saps your strength, inexorably dragging your running down to a "survival shuffle." This happens because the heat makes you sweat, and in your sweat you lose several substances your body needs to function easily and efficiently.

You can minimize the problems heat creates by

drinking E.R.G. E.R.G. contains the substances you lose in perspiration—electrolytes (potassium, magnesium, sodium and calcium), glucose (for energy and to improve electrolyte absorption), buffers (to maintain the proper pH balance) and vitamin C.

E.R.G. makes a difference in a way you run—so much of a difference, you'll have to try it to believe it. Order on page 13.