

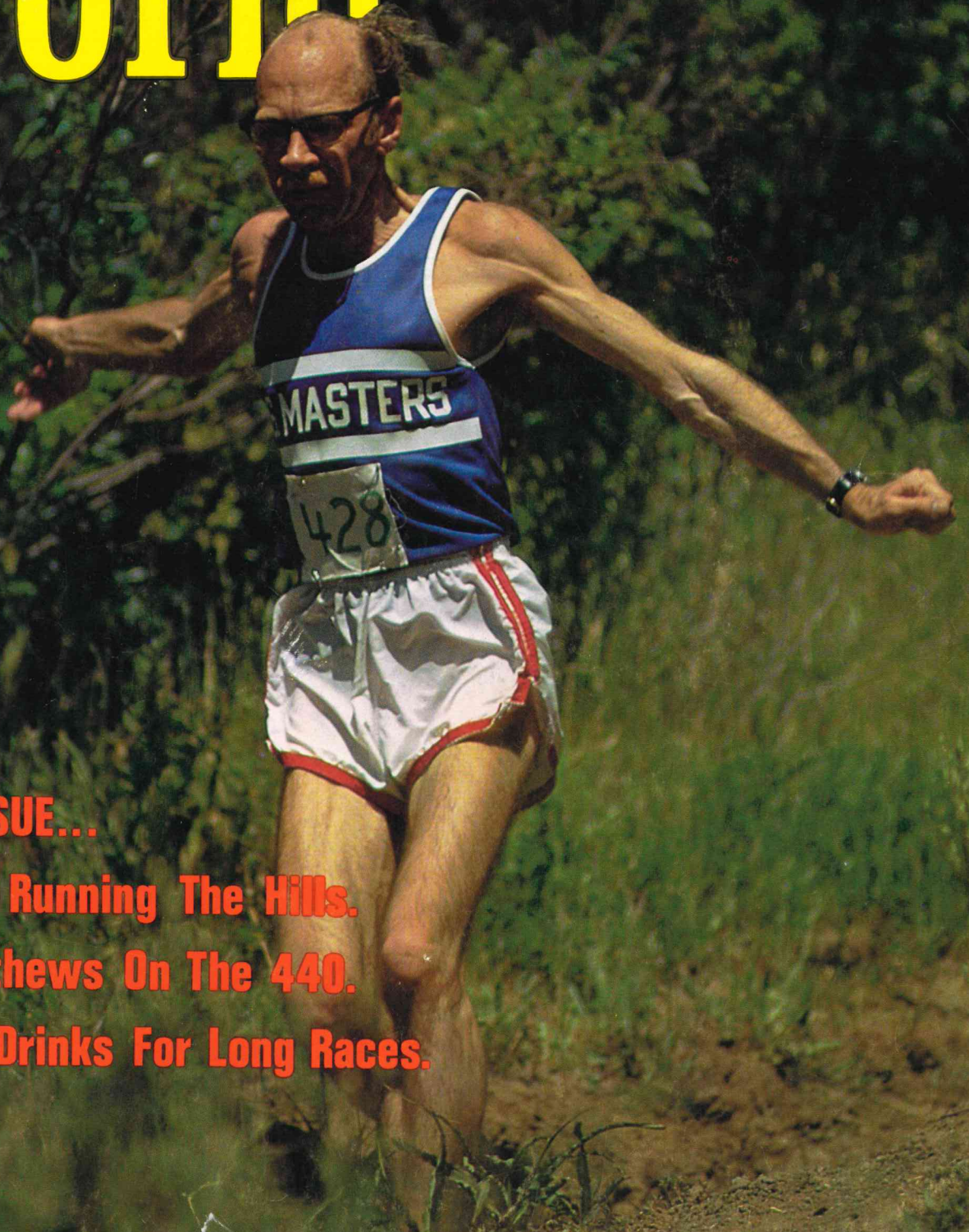
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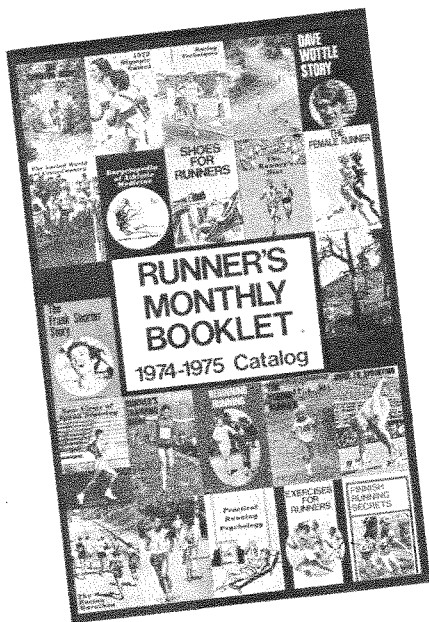
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Volume Nine — July, 1974 — Number Seven



COVER:

There's an art to running hills like those in California's Dipsea race (Peter Wood is on a down stretch here). Hal Higdon tells in this issue how to perfect this art. (John Marconi)

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FROM THE PUBLISHER

I just got back from a trip to Montreal and I was surprised to find that they have not started work on the Olympic site. In fact, it appears that they haven't even decided on who is going to do the work. And when I called up an office handling Olympic information, they couldn't even produce a drawing of what the site would look like.

The World Bicycle Championships were to be held on the Olympic Bicycle track but since they haven't begun work, the chances of having it done by August is slim.

I have no question that everything will be ready to go in 1976 but they had better get started. And when you ask the person on the street about the Olympic Games, they appear as if they know nothing about it.

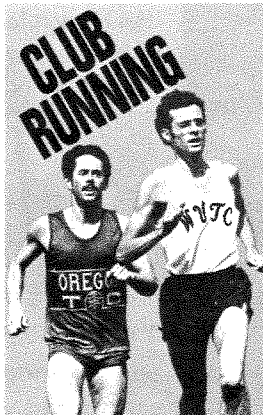
Montreal itself looks like a heavy industrial city. In fact, the days that we were there the smog was very bad. We also found that it is very easy to get lost in the city. None of the roads run straight and we found this added to the problems of finding one's way around an unfamiliar city.

We made the trip to look into some housing for our Olympic Tour. Certainly we will not be staying in Montreal. The surrounding towns are much more pleasant to stay in.

We are moving very close to that 20,000 subscription mark. We already print 21,000 copies but about 3,000 of these go out to newsstands and to sport shops. Currently we are receiving about 200 new subscriptions per month from our reader referral agents. And in fact I think we were close to 300 in the month of April.

We offer two dollars for each new subscription you send in. Just send in \$5.00 and their name and address and they are in. Our goal is 20,000 individual subscriptions. We sure are getting a lot of help in reaching this figure. How about you? I am sure you have a friend that would be interested in reading **Runner's World**.

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The school system is fine for the runners who can use it. But what about the growing number who are shut out—the age-groupers, most females, fun- and fitness-runners, road racers? Where do they go?

They go to clubs—if any are available. The sad fact is, in many if not most parts of the country there are none. And runners are left on their own. They are loners by nature, but only to a point. They sometimes need support—coaching, competition, communication, cash—which only an organized group can give.

"Club Running" first defines the need for a viable club system in the US—one which takes advantage of the strengths in the current setup and plugs up the weaknesses. The booklet then gives valuable step-by-step advice on organizing running outside the schools but in cooperation with them.

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ABOUT "RUNNERS" AND "JOGGERS"

Last October in this space, we called for an end to "jogging." It was no reflection on the activity or the people who practice it, but only a questioning of the word and its connotations.

That article set off a flood of comment bordering on controversy, and the mail on this subject hasn't dried up yet. Many of the letters have been bitter, which isn't characteristic of our writers.

One who called himself a runner said (in a letter printed in the February issue) to keep the distinction: "I resent being classified with a person who puts in one or two miles a day at eight-minute pace. I resent being classified with a person who has trouble finding a sweatsuit large enough for himself..."

This writer apparently touched a sensitive nerve with a lot of people, judging by the volume of angry responses. Their tone is summed up in this letter: "I resent having these emaciated runts looking down on me because I'm normal."

It wasn't our intention by any means to set runner against runner with that October editorial. The idea was just the opposite—to remove what appeared to be a needless and perhaps harmful distinction between them. We wanted to bring runners closer together, strengthen their group identity, if you will, not pull them farther apart and toss them into separate cages. There's enough of that going on in other areas of life without bringing it into our play.

The term "jogger" was thought to cause this kind of separation. If a person wore the title proudly, fine. But our experience was that most regarded it more as a synonym for "inferior runner." Those who used it on themselves tended to say, "I'm just a jogger" almost apologetically, the same way some women say, "I'm just a housewife."

Far worse than that, though, are the faster runners who sneer when they say the word, as if they have the corner on ability and wisdom and the "joggers" were physical retards.

Obviously, this editorial to bring runners together under a single name backfired. It marched some hostilities out for public inspection. It gave voice to those who would tell us that more and faster equal better. It strengthened the lines of a class system in running based entirely on miles per week and times in races—a system which by its nature dictates that

the very old, the very young, the female and the non-serious will always be inferior.

They aren't all the same, of course, and we aren't saying they should try to be. But they should all be under the single umbrella of running, to enjoy it equally for their own reasons and within their own abilities. They can learn more from the others and their differences by looking at them on the left or right instead of up or down a hierarchy. We need them all as runners.

The fastest ones offer insights and inspiration on what can be done with advanced techniques intensively applied. They are, in Dr. Sheehan's words, "Man at his maximum."

Older men and all women open our eyes to the dormant abilities that can flower in these groups when they get the chance to run.

Children show the exuberant, tireless innocence of running before it gets caught up in worries over times and techniques.

Two-mile-a-day runners keep the sport in a realistic perspective that more serious athletes often lose. The so-called "joggers" know that going to the extremes of mileage and pace contributes nothing to health—and most runners still give lip-service to the idea that the physical-emotional health is what the activity is all about.

A man who thinks this way, James Vanar of Massachusetts, says, "According to Dr. Kenneth Cooper, it makes no difference how big or small you are, or what your body fat percentage is, or how young or old you are, two miles a day at an eight-minute per mile pace gets you all the exercise you reasonably need."

This is in answer to the writer quoted in the third paragraph. Then Vanar turns his attention to this question of titles, saying, "I think most of us who have discovered the miracle of running are not interested in definitions, labels or even competition for that matter. I for one would be very happy to be able to run every day for the rest of my life, unnoticed, untimed and unclassified."

We agree. But the more important question is, "Do you?" This isn't just a word game, whether we call ourselves "runners" or "joggers." If it were, we would have put it to rest quietly. If you wear the titles or stick them on people, they reflect your opinions of yourself

and others. What kind of opinions? Sidney Landau wants to know. Landau is editor-in-chief of the Doubleday Dictionary, and he is trying to define more precisely the word "jog" and its derivatives as the practitioners see it.

Landau writes, "I believe that something funny has happened to this word in the last decade or so, and no dictionary has picked it up. Its meaning has broadened in popular usage from the sense of 'to move at a slow, jolting trot' to become a virtual synonym to 'run' whenever the activity is something less than a flat-out sprint and especially when it refers to anyone running for exercise or sport. I've been bemused and sometimes offended by having friends and acquaintances naturally and invariably refer to my activity as 'jogging.'

"It may be that people 25 and under have never made the distinction between 'jog' and 'run' that older generations have been taught to make. I aim to find out how runners of various ages, from different parts of the country and of varying degrees of dedication to the sport feel about being called 'joggers' and what they understand 'jogging' to mean."

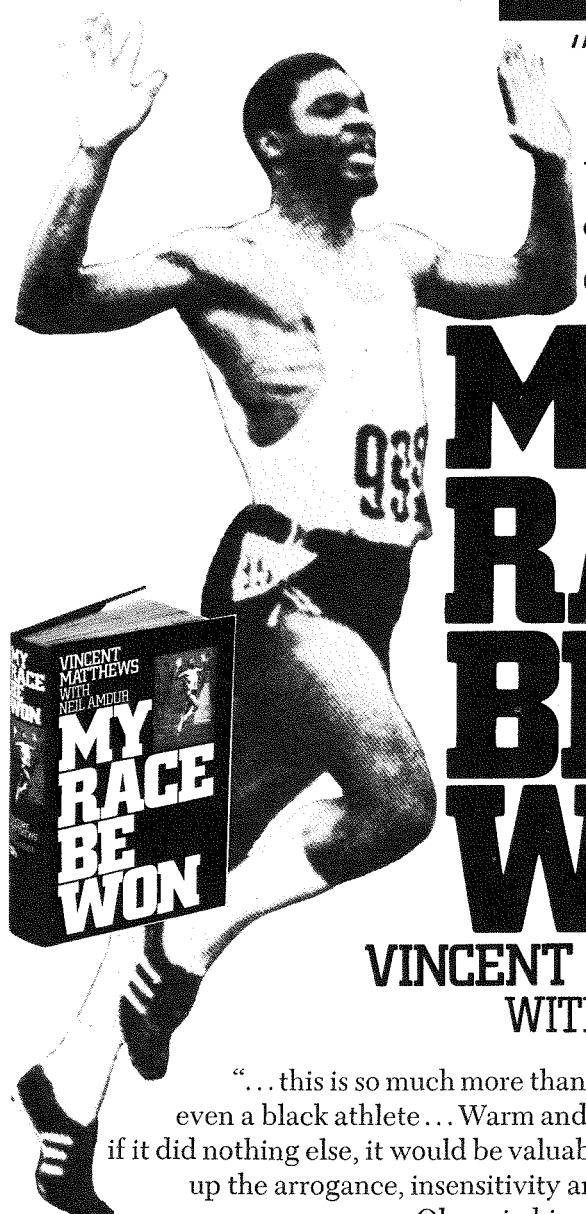
Sidney Landau asks runners of all persuasions to send the following information to him at 50 W. 96th, Apt. 2-A, New York, N.Y. 10025, or in care of *RW*.

1. *Personal information:* age; sex; residence (city, state); number of years running; current weekly mileage; length of time you've run this much; compete often, occasionally or never.

2. *Which of the following statements best expresses your attitude when someone refers to you as a "jogger" or to your activity as "jogging"?* (a) I am insulted (or annoyed or amused) at their ignorance. I am not a jogger; I am a runner. (b) I am indifferent. It makes no difference to me whether I'm called a jogger or a runner. (c) I am pleased (or proud or content) to be called a jogger. That describes perfectly well what I am.

3. *Which of the following definitions best expresses what you understand "jog" to mean?* (a) To run at a slow, jolting trot. (b) To run at a slow, leisurely, or monotonous pace; trudge; poke; plod. (c) To run, i.e., "jog" and "run" are synonymous. (If none of the definitions seems accurate, how would you define "jog"?)

NEWS AND VIEWS



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Boston Problems

John "Jock" Semple is an official with the Boston AA, sponsor of the Boston marathon, and is in charge of handling most of the paperwork with the race. He responds here to the June RW editorial, "Cutting Boston Down to Size."

There were more dissatisfied "customers" this year than ever before, and the stampede of runners is mostly to blame.

In addition to the huge number of qualified and registered runners, there were many who ran without entering or with numbers from other races. We have reported a few to the New England AAU and they will have to appear before the registration committee, as will those who lied on entry blanks that I happened to spot-check.

It was hopeless to try and screen them all. Next year, it will be compulsory when writing for an entry blank to send a photostat of the qualifying race results. Something must be done, and this photostat will relieve me of much perusing of blanks. It is not the readers of *Runner's World* who have to get this message. It is the others.

Everybody is talking of the qualifying standard being lowered except the BAA. It is obvious it has to be cut, but at the same time I will say I think our gradual cutting from 4:00 to 3:30 has made the runners better. I am egotistical enough to think that. Personally, I'll suggest 3:15 for men with women staying at 3½.

Now for the exceptions (the so-called "double standards" mentioned in the editorial). I refused Dan Moynihan's entry as a matter of routine (he had never run a marathon). But I knew I would be overruled. I like Dan and know his potentiality, but I wanted to be strict in enforcing the rules. However, there is a provision on the blank that the BAA reserves the right to invite anyone it considers worthy of being entered.

As far as Neil Cusack is concerned (he had run one previous marathon, in

1971), I knew he had won the Peach Bowl, and I thought it was the latest one. Can you imagine the roasting I would have gotten in the Boston press if I had refused him?

Ages: Here in New England, we do not allow anyone to run a marathon before age 19. I have had boys I know could do three hours, but I tell them to be patient and build up for it. The parents who allow their children to race marathons are, in my opinion, nuts. As for the girl who falsified her age, she hasn't heard the last of that. I hate liars!

Series of standards: The set of standards you suggest would just create more headaches, more scrutiny and more "strangers to the truth" than we already have.

I can only say here what I said at the Road Runners Club meeting the day before our race. I need help, and I appeal to those who really love our sport to try and weed out the cheats and liars who give the BAA marathon its problems.

—John Semple

Some Solutions

Criticizing anything about the Boston marathon in a runner's magazine may be akin to calling for a smaller defense

budget in an American Legion publication or advocating gun control legislation at a meeting of the National Rifle Association. But, be that as it may, I feel that there are some things that must be said in the hope that constructive criticism which can be acted upon without undue hardship to the organizers can result in improvements. We can't let Boston become such a "sacred cow" that we are unwilling to recognize its weak spots.

First, after the thrill of running at Boston has waned a little, we realize that the times given out along the course are useless to a runner unless he is carrying a slide rule or is in the front of the pack and able to equate times with Ron Hill's record pace. If the traditionalists wish to keep the checkpoints as they have been for years, so be it.

But let's also make it possible to figure out our pace by marking off some of the distances at precise mile marks in addition to the fractional mile markers (such as 6.72, 10.42, etc.). It would be nice to have one's first mile time and maybe again at the five or six point. Certainly, going through Wellesley and knowing you are halfway to Boston is nice—but where in Wellesley is the half-way mark?

If the organizers do not want to

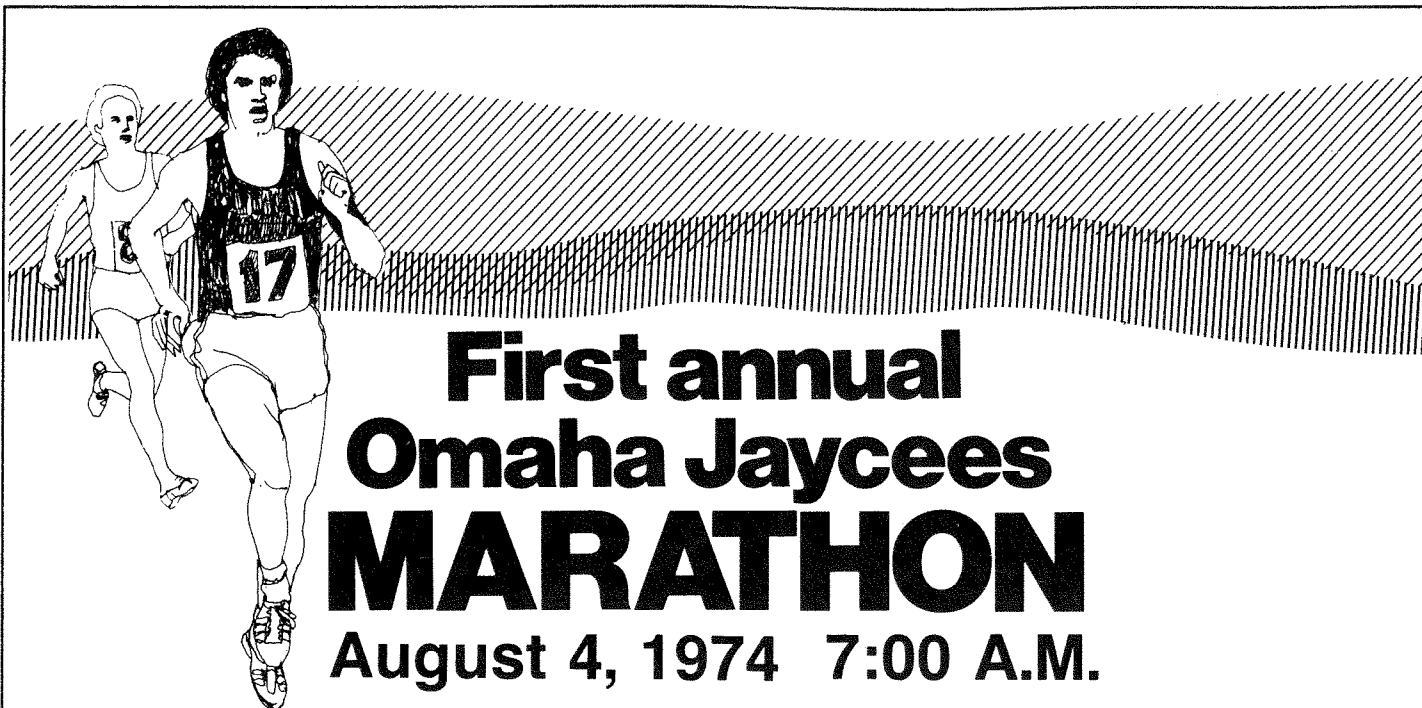
have additional times given besides at the regular check points, then at least mark the street at the appropriate spot so those with watches can know their pace. With all the cooperation that police and townspeople give along the route, it is unlikely anyone will complain about a five-mile line across the street. It is possible that those towns at precise mile marks would be glad to recruit timers from among local high school cross-country coaches or some such groups to handle these points.

Finding a few qualified timers should be no problem. As for communication with the start, police radios and walkie-talkies can synchronize everything by the sound of the gun rather than officials being transported from the start as is now the case. It just seems that in one of the world's most famous races runners ought to be able to get some good splits.

Another sore point with me is the finish line. Where is it? There is no banner or easily-spotted mark. After turning the final corner and heading down the last few hundred yards, nobody really knows where it all ends unless he has fantastic eyesight and is looking straight down at the ground. I never knew there



The Boston marathon (Jeff Johnson)



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was a finish line until I saw it later on a film report.

How about the last mile of the race. Why not designate that with a mark or maybe even interest the City of Boston in a permanent marker at the spot? As progressive as that city is, it's quite possible it would see fit to erect a small post, plaque or some such object serving to commemorate the marathon and all those who run it, plus designating the last mile. If the permanent marker is impractical then here again why not a line across the street?

Now what about refreshments? Well, if it wasn't for the numerous spectators who provide things, a person might die of thirst on the course. It's not really that bad, but the number of official Gatorade stations along the route is insufficient to service the hordes who are running. And if you are not on the proper side of the street when the aid station comes on you with no warning, forget the idea of a thirst quencher. I think the supply of liquid may be okay, but what is needed are more and better organized dispensing of the drinks. If volunteers are the problem, tap some Boy Scouts and Girl Scouts or other youth groups and/or high school track teams.

As long as I am criticizing, I cannot leave the registration procedures and other facilities at Hopkington without comment. Hopkington on race morning is a madhouse, which is to be expected, but some improvement could still be made. The toilet facilities are grossly inadequate. If more toilets in the building cannot be opened, then have some portable facilities brought in. It is inexcusable to have lines of 40-50 competitors waiting in line to relieve themselves. And as the entry list gets larger, the lines will get longer. (Rather than talking about cutting entries, let's get more toilets.)

Now suppose you make it through the toilet line and you are ready to enter the gym for registration. You enter this large room with swarms of humanity and no clearly marked instruction is visible to all to indicate what to do or which line to get into. Only after getting into a line do you find out if you are doing the right thing or not. Once in the right line, things seem to go quite smoothly—which is an improvement over previous years. However, one still hears stories of runner's properly armed with medical certificates taking much longer to go through the registration process than those having

to be examined on race day. This is especially dismaying after having spent \$25 on a medical exam.

This great race suffers from problems that can be avoided if those in charge will delegate some of the numerous responsibilities. We all know that a few members of the Boston AA do a tremendous amount of work and a fine job. But there must be others in Boston who are capable and would pitch in to work on this project each year, freeing the top officials to spend their time overseeing the operation and fixing up some of the shortcomings.

As for the money problems we hear about, there have to be corporations that would be happy to give a few thousand dollars to help out. If we can raise hundreds and often thousands of dollars in smaller cities to stage races, then the BAA should easily be able to drum up some capital. The extra money would get those toilets in Hopkington, let the BAA mail out the best-looking certificates in the country and do other things that may cost a few dollars.

Another combination money-maker and memento for finishers under the 3½-hour limit could be lapel pins and/or cloth patches. These *official* items could

be beautifully designed and made available a month or two after the race to those qualified to receive them. They could be ordered in quantity so the cost would be low and the resale price would afford the BAA a modest profit.

If the BAA fears the administrative burden that this service would entail, it can always authorize another organization which has the administrative capability to handle it to do this for them. For instance, the Road Runners Club of America could conceivably handle the whole thing for the BAA. In return, the BAA could give the RRCA a small portion of the profits for its work. So this project would not only generate money, but more importantly, it would make available to thousands of runners wonderful souvenirs of their great day in Boston.

This has not been written to knock the BAA and its handling of the marathon. It's a mammoth undertaking, and all runners are appreciative of their work that goes into it. Some of us just feel there are improvements to be made and now is the time to make them.

—Jeffrey Darman

(Darman handles publicity for the Road Runners Club of America.)

The Best Drinks

I believe I've discovered a new case in which the body's intuitive wisdom is superior to the "logical" conclusions of physiologists and it relates to hot weather running.

Dr. Ernst van Aaken, in an article on running in the heat, remarks that it is very dangerous to give a victim of heat prostration ordinary liquids. This dilutes his already critically depleted supplies of electrolytes, and has caused runners to die under treatment of well-meaning but uninformed medical people. Van Aaken, who ordinarily recommends a no-salt diet, says that in this case a 3% solution of table salt and water will revive the runner quicker than anything else.

Van Aaken himself once had heat prostration, felt miserable for three hours until he managed to find some heavily salted bouillon, and said the effects were nearly miraculous. Within a half-hour, he had lost all his worst symptoms. Since then, he has treated heat-struck runners successfully with the salt-water solution.

Recent articles have mentioned that runners tend to drink too little during and after hot races, that by following

their desire to drink it will take them several days to replenish the liquids lost through sweating. The recommendation is that runners should force themselves to take much more water than they had desire for after a long, sweaty race or workout.

Isn't it obvious that the body's first desire is to restore its depleted supplies of electrolytes, and that to further dilute the remaining electrolytes by forcing water down our gullets may be dangerous after a hot race? And in light of the body's need for "trace elements," it seems wisest to go about replacing depleted nutritional elements in the way nature supplies them—in fresh, raw fruits and vegetables and fresh-squeezed juices.

—From George Beinhorn

Prospective writers: *We need your ideas, experiences, advice. More than 300 people have written for RW over the year, and we always welcome fresh bylines. Most writers start here, with short opinion pieces in "News and Views," then graduate to bigger articles. If you want to know more about writing us, contact the editor, Box 366, Mountain View, Calif. 94040.*



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SEN. WILLIAM PROXMIRE

I had often read about Senator William Proxmire, the Democratic Senator from Wisconsin, and I had long admired his devotion to running and exercise in general. The Senator has made the news via his running and various personal items, such as his hair transplant and his being mugged. But he is also known for his deep concern in a wide variety of areas, and *Time* magazine has described him as having the "reputation as one of the chief watchdogs of government waste."

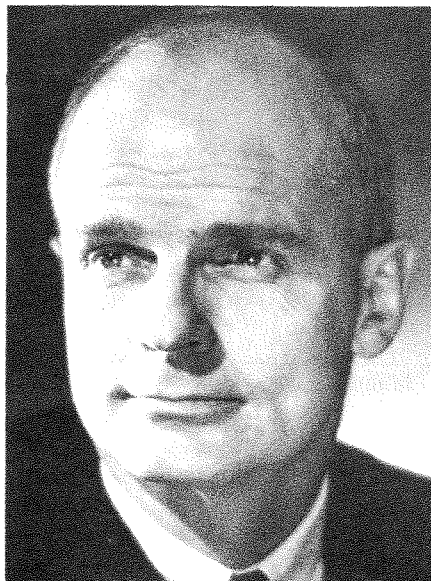
Senator Proxmire has written a book titled *You Can Do It—Senator Proxmire's Exercise, Diet and Relaxation Plan* in which he urges Americans to rise from their delicate derrieres and walk, run or swim. He doesn't hesitate to tell his countrymen what sad physical specimens they are becoming. This is a far cry from the typical picture of a politician kissing babies. Instead, Proxmire taunts his constituents about their weaknesses.

Again in the words of *Time*, the Senator is "a loner and a maverick who disdains the Senate 'club' way of conducting business." Certainly, running to work is not the Senate's way of conducting business, but Proxmire believes in running.

Senator Proxmire and his 12-year-old son both read *RW*, so he willingly consented to an interview. As I was sitting in his office in the New Senate Office Building, I caught my first glimpse of him. He had just finished addressing a group of high school students and he walked down the hall with a brisk, athletic gait. He certainly had the appearance of a man much younger than his 58 years.

RW: Many people who don't run say they don't have enough time. Yet you run, you walk, you swim, you find time to relax, you watch your diet very carefully, and at the same time you are a United States Senator. How do you find the time?

Proxmire: Well, what I do is I work it into my schedule so that it takes far less time than if I went out and set aside a certain time to run. I run to work. Of course, I have to come to work anyway, and if I go by car in the Washington traffic during rush hour it would probably take me 25 minutes. I run that five miles



and do it in 35 minutes. So the only cost is a 35-minute, good, hard, tough, aerobic workout. Then at night I run-walk home. I do the five miles home in 50 minutes to an hour. And I have to go home anyway, too, so it works out very nicely.

With my swimming, I get up a little earlier and I run the two miles to the pool, which is in between where I work and where I live, and I swim 36 lengths (a half-mile) of the pool and then run the remaining three miles to work. I'm very lucky in that I have a locker room here in the Senate. I can take a shower and change clothes and come out smelling like a rose.

I reverse the situation at night. I go down to the locker room, change into my running clothes and go home. I think, however, people shouldn't be put off by the notion that "We don't have a locker room. I can't do this." Because the typical person can do it if he uses a little ingenuity. I used to do it just using a bathroom. I'd come in, sponge down and change into my regular clothes, and that worked fairly well. So I think if people will consider that, you might find a lot more people running to work.

The other argument is that people say, "Wait a minute, I don't live five miles from work. I live 10 or 15 or 20 or more." The answer to that is to park on the outskirts (usually you can park more cheaply, more easily or for nothing),

and just get out and run the remaining two, three, four or five miles, whatever you want to run. You can fit it into your day that way.

Some people don't want to do it on that kind of basis. The answer for them is to get up earlier in the morning and go out and run—if you're a lark, if you've got lots of energy in the morning. If you're very weary in the morning and you come on strong at night, then I think the thing to do is maybe shut off your TV programs a little earlier, and go out and run in the evening. That can be very pleasant. You can run in your neighborhood and you can wear any kind of clothes.

RW: In your book, you recommend running every day—but Kenneth Cooper (author of *Aerobics*) says you can exercise three or four times a week.

Proxmire: Well, Cooper undoubtedly is right in terms of the sheer aerobic conditioning. He's the expert in that area, and I would refer to his judgment. But I think if you did it every other day you'd find all kinds of excuses—too tired, up too late the night before, have to get to work too quickly, it rained too much, or too hot, too cold or something—there's always a reason for not doing it.

I run every day. I think the habitual situation is very important. If you just run once in a while or two or three times a week, it's much harder to maintain a routine. You should run every single day.

RW: Are you a member of any of the running groups, like the D.C. Road Runners, or do you prefer running on your own?

Proxmire: No. I think that's a great idea for some people. The social discipline, the influence you have on your friends and they have on you, is excellent, and I encourage that. But I'm more of a lone operator. I've never acquired that kind of a thing. It's never been helpful or hurtful to me, I just don't do that. In fact, I do better without competition. If I competed, I'd probably run faster than I should.

RW: In your book you are not really anti-competition, but you play down competition. What are your reasons?

Proxmire: One is I think you tend to strain yourself a little too much or press yourself too hard, and I feel it's better to relax and keep your own pace. And the other is the tension involved in trying to win—a psychological tension. You find that in tennis and golf and other things, too.

RW: Most of the people who read *RW* obviously know the benefits of running because they are runners themselves. But many people have friends whom they wish to influence or motivate. In your book, you use many techniques to motivate people to run. Do you have any other suggestions or could you elaborate?

Proxmire: Physiological reasons you well know. It does enable you to be in better physical shape. You may or may not, but the chances are you'll be better able to survive a heart attack if you have one. Chances are that you are a little less likely to have a heart attack. That may very well be the case, and that's certainly a distinct motivation.

Another one that a lot of people overlook is that if you like to eat, and who doesn't, you can eat more. If you run five miles, a good hard five miles, you use up a good 500-600 calories. That means that if you do that twice a day, as I do, you can have a thousand calories a day more than you normally would without gaining weight. That's a real joy if you enjoy eating, which I do.

Another, of course, is that you can really economize on gasoline. I figure that I save, with my running and walking, about a gallon a day. That's not much, but it adds up. Now it's 52 cents a gallon and you multiply that times about 250 work days and it adds up to quite a bit of money—maybe \$125-130 a year, and that's something that's really a solid benefit.

Then, in addition to the actual physiological improvement, you feel so much better—your vitality is greater. And I might say, as a Senator, that I think I'm more alert. You can concentrate more easily and think more clearly because you are in better physical condition. And as Dr. Paul Dudley White has said, there probably is no narcotic and no sleeping pill that is better for relaxation than persistent, moderate, extended exercise. I think if you run five or 10 miles a day it's so much easier to fall asleep, and you sleep better. Plus you don't have to sleep as much. You wonder where the time comes from. I think you can sleep at least 35 minutes less if you run five miles than you could do otherwise, and you get more out of the slumber that you have.

So in all those ways there are really solid benefits. Plus the actual pleasure you get. I was just thinking the other day how great it was to be alive. The morning was crisp and clear and clean, the air smelled good and the sun was just coming up. It was invigorating. It was really a great physical joy and pleasure that I think many people who never get in shape miss—the feeling of strength you get, the feeling of being alive, the feeling of enjoying the beauties of nature that you can enjoy fully because your system is in good solid shape.

RW: There's a saying in some of the health books that the average American takes better care of his car than he does of his body. Do you agree?

Proxmire: I do indeed, and I understand that the average American is in the best shape of his life when he is 10 years old. It goes downhill after that. Now how wrong can you be? People just shouldn't permit that.

I'm in better shape now than I was at 30 or 40 years old. I can run longer, I feel less tired at the end of the day, and I have more vitality. I think that can be true of almost everybody if they take care of themselves. So many people in their 60s and 70s are obviously in pain a great deal of the time. They don't enjoy eating, they don't enjoy their friends, they have headaches, they have all kinds of problems that I think could be eliminated if they would follow a regular, moderate, extended exercise regimen.

RW: Many people, men and women, say that they simply don't run because they are afraid—they are afraid to go out on the streets, because they

are unsafe. I know you have had a few skirmishes yourself. What might you say to a person who does not have the presence of mind to thwart these criminals?

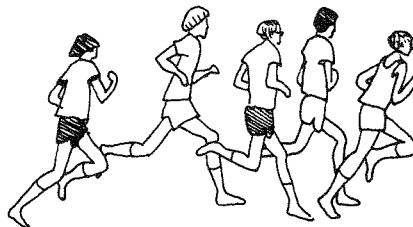
Proxmire: I've been mugged twice. Once was when I was in regular clothes, not running clothes. I was walking home from a speech I had given. I wasn't jogging. These were professional hold-up men, the first time. They wouldn't have held me up if I were in running clothes because they would have been smart enough to know I probably wouldn't have any money with me, anyway. What would I be buying?

Obviously, you don't go out to run and stop to eat. You go out and run with no money. All you can take away from the guy are the clothes on his back. So I think that the number of runners who are held up is close to zero.

I think that women might be concerned with rape and that kind of thing. What they should do is to try to run in the daylight or in a well-lit place. Or they can talk to their local police department to find someplace that's safe for running. Very often, you have a nearby school with facilities—a track. Or a golf course is a pretty safe place.

It's really the downtown areas of the city where most of the crimes occur, and a very large proportion of the people live outside the downtown area. You have a few residences, but frequently there are mainly office buildings and commercial establishments of various kinds. The residential areas are usually the safest.

But if you are concerned, I think the morning is a good time. You rarely



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have any hold-ups then. Hold-up guys like to sleep, or if they are drug-addicted usually they are out at night, so morning's a pretty safe time that way.

The one time I was held up and I was in running clothes was by a couple of young kids, and I dragged them out to the street. It was seven o'clock in the evening, cars were coming by on a very heavily traveled street here in Washington. I dragged them right out into the street and held up my hands to stop the cars. They ran away.

I don't know of anybody else who has been held-up while in running clothes. I think that people shouldn't be concerned about that, especially if they do take the precautions I've suggested and also if you are running in any kind of a group. A hold-up man isn't going to pick on a pack of runners. If he does, he's likely to get run over. Plus the fact that a runner can usually run away from these people.

“ . . . I think that the most common reason people don't run is that they are afraid other people might laugh at them. . . ”

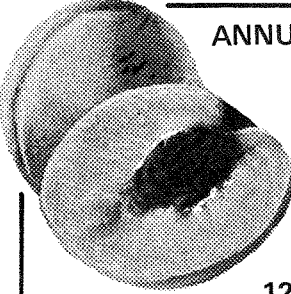
RW: Maybe these people are using fear of a hold-up as an excuse for not running.

Proxmire: I think very often that is true. I think that the most common reason people don't run is that they are afraid other people might laugh at them. They're afraid of ridicule, and this is just plain wrong. There is one woman who runs by in my neighborhood. I greatly admire her. She's in her 60s, at least, she has grey hair but she's very trim because she's run every day and she's very careful about keeping her routine. I think that's great. After all, if a woman in her 60s can do it, why can't anybody go out and do it?

Some people may feel that maybe they are a little heavy and they might look funny for that reason. But after all, that's one way of keeping your weight down. You can just plod along and people won't have any less respect for you just because you are running. So I think you should be far less self-conscious.

The most inhibiting factor for almost any kind of behavior is the feeling that somebody may laugh at you. It's very unfortunate that people have that feeling because the laugh is on the other guy. You're in better shape than he is, you're likely to be healthier and stronger, and I think there is nothing to be concerned about at all.

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RW: Some people say that a fitter-than-thou attitude takes on the air of a Holier-than-thou attitude. Do you agree?

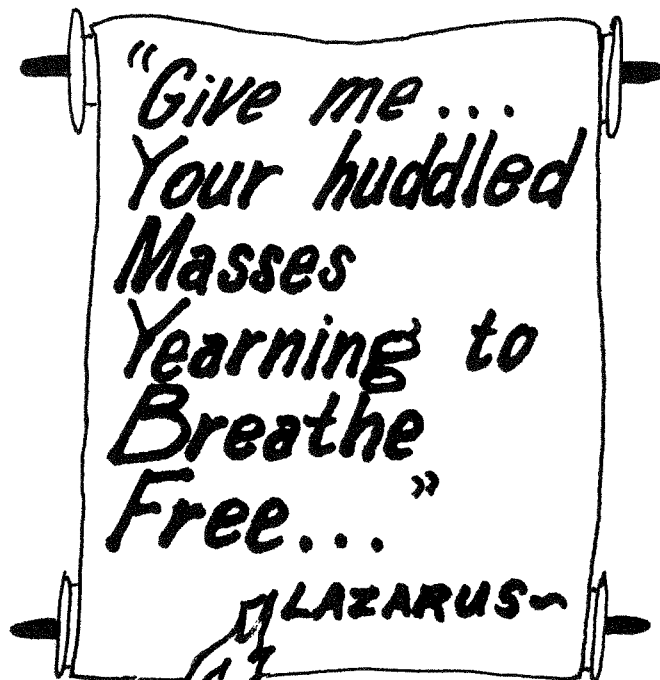
Proxmire: I think it is not a matter of conceit or arrogance to speak the truth. I think some people may decry the morals of others and take a holier-than-thou attitude in that way, and say my morals are perfect and yours are imperfect. That's resented because we are all human and we all have our weaknesses. They may be different kinds of weaknesses. Some may have a moral weakness as far as drink is concerned, some with respect to sex, some with respect to some

other moral—jealousy or possessiveness.

But with respect to exercise, you have a perfectly objective factor of determination. Either a person exercises or he doesn't exercise substantially. If he doesn't exercise much, you can point that out as a matter of fact, and people may want to accept it. They may want to accept the fact that they will be less healthy, be ill more, live a shorter life perhaps and suffer all the debilities and problems. At least it is a fact that can be commented on objectively and fairly. The fact is if Americans don't become more fit, the country is in trouble. We *can* do something about it.

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“MY RACE BE WON”

by Vincent Matthews with Neil Amdur

Vincent Matthews has spent his entire running career trying to be noticed and appreciated, to prove he belongs in the company of the world’s best quarter-milers.

The native New Yorker had a hard time doing that from his base at tiny Johnson C. Smith College in North Carolina. He did set a world record for 400 meters in 1968. But Lee Evans ran faster at the Olympics in Mexico City. Vince competed there, too, but only in the 1600-meter relay. He didn’t qualify for the individual race.

After Mexico, Matthews was discharged from the army with bleeding ulcers, had a short-lived trial at pro football, and then apparently retired from athletics for good.

He grew fat and restless with the inactivity, and in 1971 began training

again. His form returned quickly, and in the Olympic summer he beat Evans out of the third spot on the US team. Some officials thought it was a fluke, and there was talk of Evans, the defending champion, replacing Matthews in the open 400.

Vince proved himself in a final trial race, and again at the Games—where he beat Wayne Collett for the gold medal. Ironically, just when Matthews had finally “arrived,” he and Collett were involved in the victory stand incident. Vince was to be remembered more for the way he acted on the stand than for the running that earned him the right to be there.

Matthews, now running professionally with the ITA, has written of his career that covers two stormy Olympics. The book *My Race Be Won* (Charterhouse, New York City), done in cooperation

with New York Times track writer Neil Amdur, was released in June.

The book covers the social-political-financial wranglings of big-time track in careful, honest detail, up to and including Vince’s moment on the victory stand. But he does his finest writing when he describes running one lap around the track. This excerpt from *My Race* centers on that aspect of Vincent Matthews’ story, the aspect for which he should be remembered because he is one of the best ever at that art.

THE TRACKMAN’S PRAYER

*Now I lay me down the blocks,
I ask the Lord for socks and jocks.
If I should die before the gun,
I ask the Lord my race be won.*

—Vincent E. Matthews

“Okay, today we’re going to run

Vincent Matthews developed into a world-class quarter-miler while attending Johnson C. Smith University in North Carolina. Matthews' coach there was Kenneth Powell (right).

time trials," Milt Blatt, track coach at Andrew Jackson High School, announced. "We want to find out where you're best suited for this team, if at all."

We ran a 100-yard dash, but I wasn't fast enough to stay with some of the better sprinters. I finished third in my race. One of the assistants told me my time was about 11.2 seconds.

"Not bad, not bad," he said. He sounded as if he was just trying to make me feel good.

On previous days, I also had run a 2:07 half and 5:32 mile. But there was no way, absolutely no way, I was going to be a half-miler or miler. It just wasn't my bag. I didn't feel comfortable running those races.

In the time trial for the 440, I seemed to feel more comfortable. I could stretch my legs more, the long straight-away on the backstretch seemed cool, and I didn't feel as if the race involved one short explosive burst. But as I rounded the final turn, at about the 350-yard mark, pain that I had never experienced in the 100, 880 or mile hit me. It was like running into a glass door. My body began to disintegrate into pieces.

I didn't know what to do. I tried to lift my legs, but they were weighted down, as if I were a prisoner on a road gang carrying lead balls around my ankles. My arm movement, which had been so fluid and pronounced in other events as I finished a race, was virtually useless. I tried to pump my arms up and down, but a hinge seemed broken. They wouldn't move.

I reached the finish line first but said it would be the last time I would ever run a 440. No single event seemed worth that kind of excruciating pain, not even if it was more comfortable for me at the onset than a half-mile or 100.

"Not bad, not bad," coach Blatt said, studying his stopwatch.

"What was my time?" I asked, still breathless and dizzy from the race.

"Well, let's see," he said, staring at the watch again. "Looks like about 57.5. Not bad at all."

I didn't know whether 57.5 seconds for your first 440 was good or bad. All I knew was that I didn't want any part of that pain again.

In my case, coach Blatt found 57.5 for a 440 significant enough to orient my training toward the quarter, even as I began to shy away from going out too fast to avoid that invisible shield at 350 yards that would invariably break me down.

But the more I ran, the greater the challenge became for me to find out if there was some way I could run and not feel pain through a whole race. A lot of times, I would walk or ride my bike to the Jackson field and practice on my own.

I enjoyed being by myself, because I didn't feel I had to show what I could do to any other member of the team, or even to coach Blatt. As a result, I would put myself through certain workouts to see how much pain my body could endure. Some of the workouts followed coach Blatt's routines, but others, especially the short-interval drills, I made up.

Most coaches stressed interval-type training with reasonably long rest periods. You might run a 600, then walk a quarter, run another 600, then walk another quarter. I tried to run with as little rest as possible. If I ran a 500, I would walk a 220, walk across the field and do a 300. Then I'd walk from the 300-yard mark over to the 220-yard mark and stride a 220.

I found that I enjoyed putting myself through a certain amount of pain. It was like a race car driver trying to reach 200 miles per hour after having gone 190. It was going one step beyond what I had ever done before. I found this true with each new pain that I felt. The pain told me that I had touched yet another part of my body, and it became a game to see if the same pain would return during a similar workout or if my body had conquered it through training.

You seldom hear quarter-milers talk junk, not even the really good ones. You can feel that you're the best in the quarter. But you never know when rig may set in during a race and wipe you out.

"Rig" is short for rigormortis, or, as the sportswriters like to say, that moment in a race when an athlete seems to "tighten up." Each race in track and field has a form of rig, except for the 100 and 220, where the biggest worry is pulling a muscle.

In the quarter-mile, you dread rig. You're always trying to fight it off, whether it's at the 350-yard mark or at 375 yards, and each athlete has a different way to combat rig. Some athletes start flailing their arms or pumping them

up and down frantically. Other guys try to lift their legs that much higher, or simply straighten up.

Rig attacks differently, depending on the distance. In the 440, where you're sprinting all-out on your toes, you feel rig in your legs. That neutralizes all activities in the rest of your body, since your legs are the driving force. In the 880, rig normally sets in around the stomach area. In the mile, it's as if you have a sore throat and you get rig in your chest from breathing.

That's why runners don't like to talk much before a race. No matter what kind of plan you may have formulated, you never know when or where you may get rig.

Rig's effect on the body can be devastating. Your arms start to feel heavy, maybe as if you had been lifting something heavy all day. Instead of holding them up in a steady pace, you want to let them fall down to your sides. You start feeling them getting rigid as every muscle tightens.

Your legs do the same thing. In the quarter or 220, coaches try to stress to young athletes that if you lift your knees, your whole leg will come up. When you get rig in the quarter, your legs have this tendency to try and force themselves down, as if there were weights on the kneecaps. Your legs are forcing themselves to stop. Coaches say "lift your knees," and it feels as if you're trying to lift 50-pound weights on each leg. You try to lift as high as possible, because if you give in to rig, it will take over your whole body.

I fight rig by telling myself to pump my arms in a steady rhythm, lift my legs and relax my body. If my mind forgets to do any one of these three things, my body takes over. Young guys in the quarter will throw their heads from side to side as if to summon extra energy, or throw their arms out wildly. But they're trying to fight it off with their bodies instead of their minds. With rig, you have to fight it off with your mind by concentration. When your body takes over, you're lost.

In the quarter, you shouldn't get rig until you're coming off the last turn in the stretch. If you catch it just after you finish the first 220, you're in for a long, hard race. There's no way to escape rig in the quarter, even if you're going very slow.

If you're a world-class runner, going into the first 220 of a quarter at 24 seconds is light stuff. But you may not be able to win a race if you run your first 220 that easily to avoid rig. On the other hand, if you're trying to run 20 or 21 for the first 220, and you're putting

everything in it, you're likely to get a severe case of all-out rig.

I taught myself to handle rig through trial and error. It's really the only way an athlete, whether he's a quarter-miler or miler, can understand how his body functions under stress. During some of my workouts, I broke my race down and practiced running a backstretch or final turn, depending on what I did in a previous race. If I had run a weak third 110 yards, the following week I stressed my third 110.

I didn't do it at the expense of my regular workout. I ran a complete workout, with 500s and 300s until I was tired. Then I walked over the the spot where the third 110 begins, and I started striding 10 of those 110s. I did this because I was tired at the time I messed up during the race, and I wanted to simulate that experience in practice. If I started working on my third 110 while I was fresh, it wouldn't relate to my race.

One of the characteristics of my style as a quarter-miler at Jackson and Smith was my ability to run the backstretch of a race hard. People wondered why I ran so hard on the backstretch. I didn't know why, except that I had worked on wind sprints along the backstretch in some of my practices, and I had gotten my body so accustomed to coming off the first turn and lifting that when I ran a race coming off the turn, I would go into an automatic high lift.

For a while, running the backstretch as hard as I did may have hindered me somewhat, because I faded in the stretch and didn't understand what I had to do to combat rig. It wasn't until my senior year at Jackson that I really overcame my early fear of rig. In my sophomore and junior years, I held back early in the race and charged down the stretch as if I weren't tired. In reality, I was holding back because of my fear of rig.

I saw the 1968 Olympic Trials final as four runners—Lee Evans, Larry James, Ron Freeman and myself—chasing the three berths in the open 400. Jim Kemp had drawn the curb lane, which would make him run harder than he wanted to make up the stagger. Hal Francis had never run faster than 45.2. The final had to go under 45.

Lee had drawn the outside lane in the final, but he didn't have to worry about running alone or setting the pace. I set it for him, even though I was running in the next inside lane and could have run off his pace for most of the race.

I should have been more nervous before the final, because it might have made me more cautious. But I felt loose

and ran the first 200 in 20.7, fast enough to make up the stagger on Lee and move into a five-yard lead on the backstretch. Whether by choice or chance, the track at Tahoe was set up to provide a dramatic finish for almost every race. As runners moved in the final turn, they disappeared behind a large cluster of pine trees, which meant that a race could change dramatically on the turn.

I never thought I could catch rig if I ran a hard 300, and my momentum was good in the final going into the clump of trees. But on the turn, Larry James, who had made up the stagger on me in lane two, took the lead, and Lee passed me on the middle of the turn. Now I starting thinking about holding on for third place, and I fought to lift my legs.

Nothing happened. I felt like I was standing still. In the middle of the last straightaway, Ron Freeman, who had started last and let Jim Kemp rush by him, came up on me and passed me 50 yards from the tape. I made an attempt to challenge Ron, but my legs wouldn't respond.

"Keep lifting, keep lifting," I said, realizing that my only hope now to make the Olympic team was to finish fourth and qualify for the relay. I kept waiting for Jim Kemp or Hal Francis to surge alongside, but they didn't, and I groped for the finish line, behind Lee, Larry and Ron.

I finished fourth. It should have been one of the happiest moments of my life, making a United States Olympic team. But as I walked around the track alone to catch my breath and disappeared again behind the trees, I was disappointed. I wanted to run the open 400 at Mexico City. I never thought of qualifying as the alternate.

I was unhappy after I retired from running, and the notations in my Thought Book and diary reflected anger and frustration. "With all the stuff I have going for me," I wrote in my diary, "I hate life. I feel as if I were a dog being held on a leash by the world."

I couldn't explain my moods to my wife Dianne or myself. The job, which had seemed so challenging, had developed into dull routine. I was bored and couldn't wait to leave the office. Where some guys came home and looked forward to a track practice, as an opportunity to test their body and mind, I had no incentives. I took out some of my frustration at the dinner table.

In the next month, my weight reached 192 pounds, 17 pounds over my peak running weight. I couldn't even



get excited when Ron Johnson called one night in early April and said that a bunch of guys were training again every Sunday at Bushwick High School.

"I've been away from running too long to play around at getting myself back in shape," I told Ron. "And all the hassles with coaches and the AAU aren't worth playing that running game again."

I told Dianne about Ron's phone call and his weekly practices, and I could see she seemed interested, even though I told her I didn't like the idea of going out and getting beat.

"Ron said you'd be working out, not racing," Dianne said. "Even if you did lose a race, you just might lose some of that weight, too."

Dianne's words dug at my pride. But it hurt even worse a few days later when I split a pair of pants up the back seam while at work. I had to wear my jacket like a skirt all the way home on the subway. The following Sunday, I was jogging at Bushwick High with Ron and some of his friends.

We met every Sunday that spring for workouts. Soon, the workouts turned to informal relay races.

It felt good to be running again, even though I knew I wasn't in any kind of shape to race Lee Evans or John Smith, who had moved in to challenge Lee for the top spot in the 440. Aside from feeling heavy on the track, carting around the 17 extra pounds, I lacked the sensitivity that made me feel a part of running. The biggest difference between running for a period of time, laying off, and then resuming your career is gaining that feel of what you're doing there. I imagine top tennis and golf players experience the same frustration trying to acquire the delicate touch with a racquet or club, and the same principles applies to running: you have to feel light, as if you're floating on the track, and you can't do that when you're coming off a night of drinking or a long period away from training.

Most of our Sunday workouts consisted of informal sprints. Nobody was standing around over us, telling us we had to do these workouts or we were off the team. We ran because we enjoyed running, and as we seemed to improve, with each week, the more thought we gave to forming a relay team and challenging United or the Pioneers to a race.

The training bug began to bite even more when we began working out at night during the week, in addition to Sunday. There were about seven of us working out regularly, and one of us suggested that we form a team and compete at some of the local meets. We

thought of different names, settled on "The Run for Fun Club."

One night, a group of us were watching a movie entitled "The Over the Hill Gang" on television. The title fascinated me, and I thought it applied to us as runners. All of us had been athletes who had stopped running and then resumed again, in much the same fashion as western gunslingers coming out for one final go-round.

"What do you think of changing our name to The Over the Hill Gang?" I said. The vote in favor of the change was unanimous.

The Met AAU finally approved our request for sanctioning, but only after we were forced to change our name. The AAU would not buy "The Over the Hill Gang," because they said it sounded like a bunch of old farts coming out of retirement, and the term "gang" had a bad connotation, particularly for a club from Brooklyn.

We spent several months formalizing our charter before the Met AAU agreed to approve a club name for us—"BOHAA." Somehow we managed to convince the AAU board that "BOHAA" was the name of the first Indian tribe to settle in Bedford-Stuyvesant. In our minds, the name stood for "Brooklyn Over the Hill Athletic Association."

The club came a long way in a short time. Larry James, who was working at a college near his home in White Plains, N.Y., had joined us. Another former Villanova quarter-miler, Lamotte Hyman, and Greg Daughtry, who had run for Morgan State, gave us a mile relay team that was good enough to win the National AAU indoor title at Madison Square Garden. It was a victory that all of us relished, considering the AAU's repeated indifference toward us.

NEXT ISSUE: Matthews describes events leading up to his gold medal winning 400 at the Munich Olympics. It is a many-parted struggle, involving not only his races with Lee Evans, John Smith and Wayne Collett, but his efforts to convince US coaches that he really does belong in the open race—that his qualifying wasn't a fluke.

In addition, Matthews talks more about the techniques of running his race, the training and his battle with "rig," which he wins just in time for his appointment on the victory stand.



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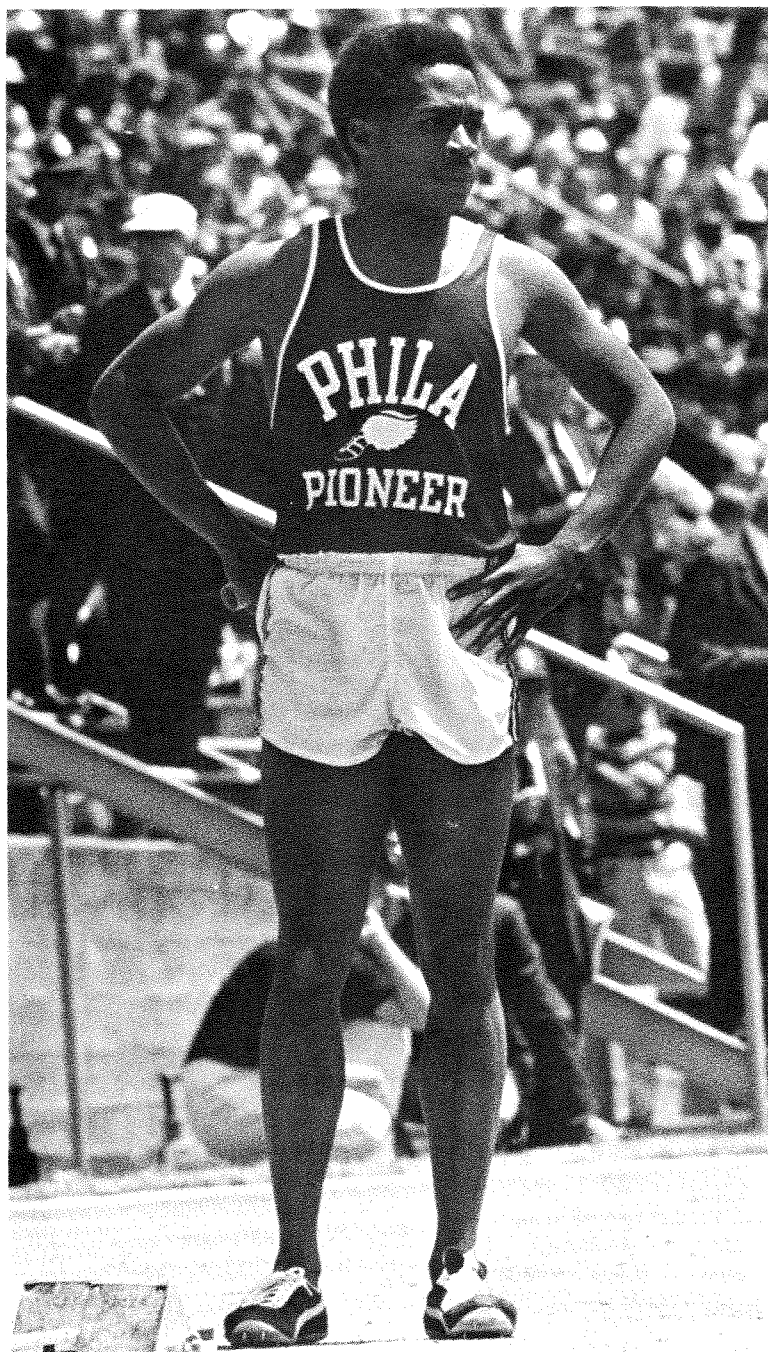
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Finally free of financial worries, Ivory Crockett has responded with a milestone 100-yard dash record.

ON TOP OF THE WORLD AT 9.0

that many people simply refused to accept it as valid. Such a mark by Williams would have been believable. But Ivory Crockett!

Well, Ivory cleared all of that up in a hurry two weeks later when he met Williams in the 100 at the California Relays in Modesto and beat him. Not only that, but when Williams pulled almost even with him at 75-80 yards in that race, Crockett showed he was perfectly capable of containing his adversary's vaunted finish. As Crockett explained later, "I got out fast, hung there for a minute and when he came up, I just went on through."

Running on dirt, they each recorded 9.2, Crockett winning by at least a foot. On a Tartan track, like the one on which he had set his record, they probably would have run 9.1, maybe faster.

The following Friday, 24-year-old Ivory Crockett relaxed in a Berkeley, Calif., hotel room on the eve of the Kennedy Games and another meeting with Steve Williams. Ivory's attractive young wife, Sylvia, sat nearby, reading a magazine. The two were married nearly three years ago when they were both students at Southern Illinois. They now live in Peoria, Ill., Sylvia's hometown, where Ivory is a successful marketing representative with IBM (Man of the Month, no less, in his office in April). He hopes to earn \$25,000 with the company this year. It's a long step up from the poverty he was born into in Halls, Tenn., and the lean, hard years he experienced as a teenager in suburban St. Louis.

"I'll tell you why I'm running well," said Ivory, who graduated last summer from Southern Illinois with a degree in administration of justice. "My training schedule is different but the biggest change is that I don't have any financial problems. I can't remember a time before this when I didn't have any financial problems. My family never did have anything—nuthin'. We had to rake and

by Dave Prokop

Little Ivory Crockett has been a familiar name on the American sprint scene ever since 1969 when he upset John Carlos in the 100 at the US AAU Championships, both of them running 9.3. Ivory was only 19 then and a freshman at Southern Illinois University. In the years since, the 5'7", 160-pound speedster had repeated as an AAU 100 champion (in 1970) and had recorded several 9.2s for the distance, a mere tenth of a second off the world mark.

Unfortunately, his record was inconsistent. In '72, for instance, he failed to make the final of the 100-meter dash

at the US Olympic Trials. As the current track season rolled around, therefore, it was easy to dismiss Ivory Crockett as just another 9.2 man on the list, a very good, though certainly not great, sprinter.

All of that changed dramatically on May 11 of this year in Knoxville, Tenn., when he sprinted the 100 in nine seconds flat, the first man in history to accomplish the feat under legal wind conditions. The previous record of 9.1 had been shared by seven men, including Bob Hayes, John Carlos and last year's sprint superstar Steve Williams. So stunning and unexpected was Crockett's performance

scrape. When I was a kid nobody was waiting for me with a hot breakfast in the morning, or sending me off to school. It was 'Scratch for yourself, Jack.' Even in college, I never had any money. In '72 my wife got sick (asthma), there was no money, we didn't know what to do. (In track) I would ask, 'Why did I lose? I trained hard.' My life had so many ups and downs, sometimes I would say, 'Hey, God, when are you gonna give me a break?'

"But all that's passed now. That's why I'm running better. I don't have any worries. This is just the happiest I've been in my whole life. It's just a lot of burden off Ivory Crockett."

Not that Ivory's training this past winter, when he laid the foundation for his historic 9.0, was any waltz down a primrose lane. Peoria, Ill., is not the best place to be during the winter if you're a world-class sprinter. The city has no indoor facilities, Ivory had no other sprinters to train with, and his coach with the Philadelphia Pioneers, Alex Woodley, was some 800 miles away (Ivory joined the Pioneers last year after his college graduation).

Undaunted, Ivory would get up each morning during the winter and run 1½ miles for endurance. After work, at about five o'clock, he would go out again and do 60-75-yard sprints, as many as 20 in succession, on a suitable stretch where the snow had been cleared (usually a track or a parking lot). By that time of the day the evening chill would form ice underfoot, making a sprint workout a risky business. Fortunately, daylight saving time was instituted in January. From then on, Ivory was able to finish his workouts while the sun and the temperature were still up.

"Nixon did me a favor," he says. "Daylight saving time was the best thing that could have happened to me."

When spring came, Ivory started into a systematic training program coach Woodley had designed for him. In college Ivory's training had consisted of some endurance work and a lot of speedwork, and he had competed over a wide range of short distances (in one collegiate indoor meet, for example, he ran a 6.0 60, a 30.6 300 and a 48.4 440, all in one day). Woodley had him concentrate solely on the 100, and to emphasize endurance and speedwork equally in training.

To build strength and staying power, Ivory would run two 440s in 48 seconds each, sprinting the first 220 hard and then hanging on (he's always liked the 440 and its challenge; as a freshman at Southern Illinois he ran a 45.9 leadoff leg in the mile relay). To develop a

smooth, fluid running action, he ran 150s and 220s. And to give him the quick burst out of the blocks, he ran 60s. What he was doing, in essence, was "surrounding" the 100; it tied in perfectly with his whole approach to the race: "You want a good start and a nice drive all the way through. What I want to do is make them (the other runners) work for me. I get out fast and make them catch me. The farther you go, the more they tie up."

As a concession to Ivory's innate ability (he ran 9.5 as a senior at Webster Groves High School in suburban St. Louis), Ivory did no weight training nor any particular technique work. He explains, "I'm a natural sprinter. God gave me the talent. We took films of me running and the style was perfect, no problems. It's all just natural. So I use what God gave me—my natural ability."

Ivory won impressively in his first three meets of the season—the Dogwood, Kansas and Drake Relays—running 9.3 each time. The nine-flat performance came in his fourth meet, the Tom Black Classic at the University of Tennessee. Conditions were ideal (a fast track, absolutely no wind at race time) and the competition was excellent (including Reggie Jones, University of Tennessee freshman sensation who had run 9.2 and a wind-aided 9.1 earlier in the season). There was one false start. On the second start, Ivory exploded out of the blocks and was never challenged. A few yards from the tape, he threw his arms up in triumph and looked over his left shoulder at Jones, who was about two yards back. The four watches caught Ivory in 8.9, 9.0, 9.0 and 9.1 respectively. Jones, though decisively beaten, was clocked in 9.2.

So the night before the Kennedy Games, Ivory Crockett talked about the nine-flat. It's clear the achievement towers in his mind; when he talks of it he says things like, "If I never run another race, I'd be happy with what I've accomplished." And he scoffs at any suggestion that the Modesto 100 against Williams was the greater competitive test and, therefore, perhaps a more important race.

"The nine-flat was the most important race," he says emphatically. "It was no big thing beating Steve Williams. The media played the race up. See, last year they gave Steve all this publicity. He became the product on the market. They wrote all these articles on how he was going to break the world record. But what happened? I did it. So the media got caught.

"Before Modesto I ran nine-flat. And what had Steve Williams done? He

had one 9.1 last year. And what did he do before that? Ask anybody. How many people know? I beat John Carlos five years ago, when I was just a kid out of high school.

"No, the media did all the building up, and then they want me to worry about it. It's like people who ask me if I wouldn't run better if I were taller. Hell, man, I ran nine-flat, not some 6'8" cat!

"So I just erase all that — whoosh! I take each race as it comes. Now I see the newspaper is saying about tomorrow's race, 'Crockett has to prove himself again.' I don't have to prove myself to anybody. Just pick up the papers and there it is—*nine flat*. I can get beat on any given day, just like Steve Williams can. But win or lose, I have accomplished my goal."

The next day Ivory Crockett did indeed get beat, his first loss of the season, and so did Steve Williams. The winner was the great Jamaican sprinter, Don Quarrie. But the race was a near dead-heat which could have gone to either Crockett or Williams if they hadn't misjudged their lean at the finish.

Typically, Ivory shot out of the blocks. He had about a yard on Quarrie and a slightly larger lead on Williams at halfway. In the last half of the race, Quarrie and Williams particularly started to close. Still, with only five yards to go, Ivory was about a foot ahead of Williams with Quarrie another foot back. Unfortunately, Ivory had already started his lean. Williams leaned early, too. Their miscalculation (Ivory later said, "Me and Steve were worrying too much about each other") enabled Quarrie, who held his form right through the tape, to snatch the victory by inches. Williams was given second, Ivory third. All three were timed in 9.4 on a slow cinder track.

Afterwards, Ivory came back to the top of the straight and said of his finish, "I was leaning *bad*. I was just too much off stride. My mistake was that I didn't walk down the track before the race to see exactly where the tape was. I usually do that. I don't know why I didn't this time." He shook his head.

How did you feel? he was asked. "I was tired, just tired, man," he said, almost a sigh of relief in his voice. "I'm glad it's over. I had to come down sometime. You can't win all the time." It was the first sign he'd given all weekend that even when you take each race as it comes, the pressure is still there.

Now he would go back home to Peoria, to take a rest from competition and train for the next big test—the AAU Championships three weeks away. He'd be back and ready to go then, a guy with nothing to prove, just a race to run.

*No time to run, you say?
Try putting your commuting
hours to better use.*

IT'S OFF TO WORK WE GO

by Joe Henderson

Monday through Friday, Joe Viverito leaves his Long Island home for the 10-mile commute into New York City. After his work day, he reverses his route and goes home. The difference between Joe and a million other New York commuters is that he goes to work and back on foot.

Viverito works for a public relations firm which polishes the images of the oil companies. "People live by symbols," he says, "and if they see me running, perhaps they will be motivated to cooperate and find ways to save energy. Despite all the unknowns about the energy situation, the need for everyone to conserve energy will be crucial to economic stability over the next few years."

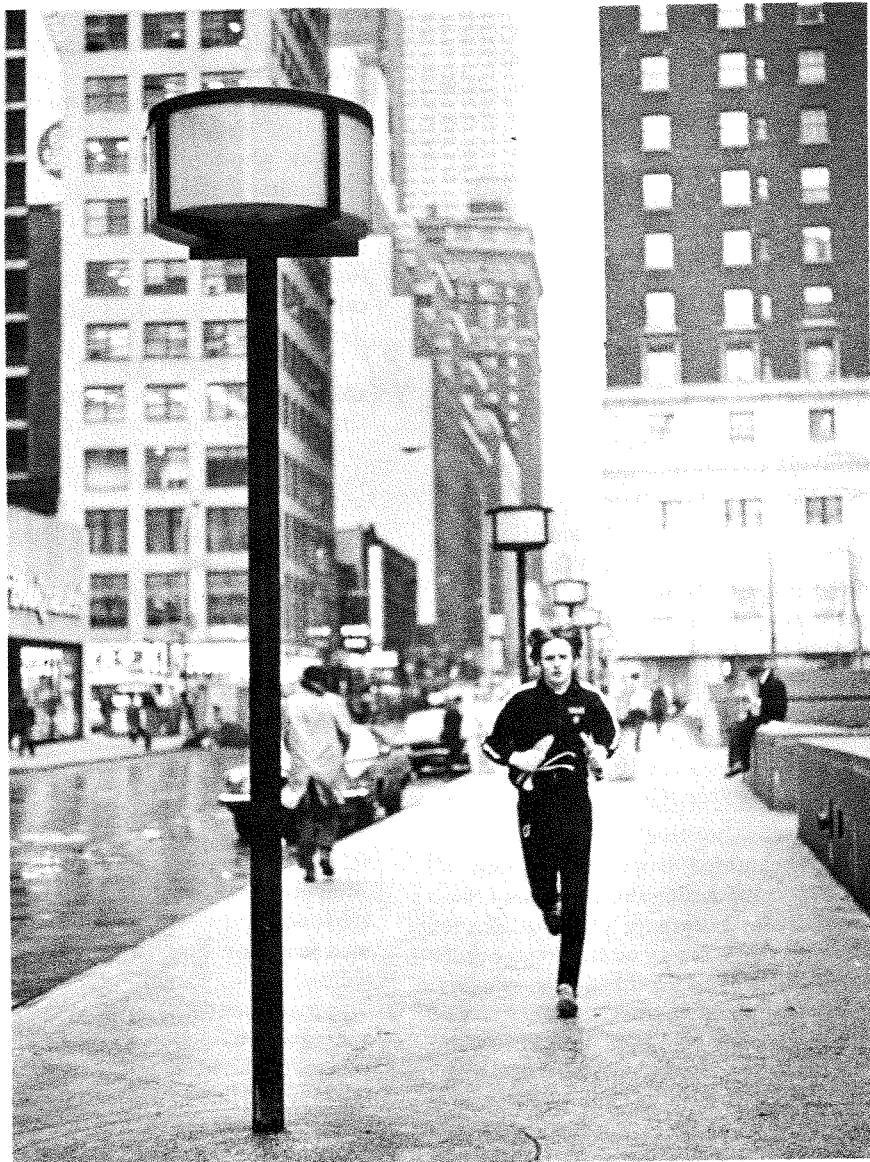
Joe already was doing 12-15 miles a day when he hit upon the to-work-and-back idea this winter. He said then, "All I'm doing is switching my running time, adding a little extra mileage and losing some sleep."

I don't have the exact figures here to quote. But a recent national survey reported that something like four in five Americans drive their own cars to work and back each day. Most of the others take public transportation. Only about one in a hundred walks.

The main streets are clogged, the sidewalks are empty. At 7:30 in the morning this winter, a runner on his way to work could smile smugly, knowing that the advantage had swung at least temporarily to him.

Lines at the gas stations were backed up a mile or more. Maybe he was imagining it, but motorists seemed to glower at him as he ran down the line.

He crossed the freeway. The morn-



ing was still dark, and a river of headlights, four lanes across in both directions, ran as far to the north and south as he could see. The traffic was moving slower than he was.

True, he had been sucking up some of the auto fumes on the busier streets. And there had been some risk of being bumped. But all in all, running wasn't a bad way to get to work.

He'd put in a brisk seven miles, and his super-oxygenated brain was ready to to some heavy thinking. He sponged off, put on fresh clothes and sat down to eight hours at the desk before running back home.

By running this way, he'd solved a number of problems: getting to work during the gas shortage (the wait at gas stations was as long as two hours this winter); getting to work quickly (the bus would have taken an hour each way); and most of all, getting in extra mileage (name a more practical way to go two hours a day).

Any street that can be walked can be "commute-run." This runner is on a street near New York's Madison Square Garden. (John Cooper photo)

This is any runner's answer to "I don't have time to run because of work." Anyone who has time to commute has time to do some or all of it on foot.

Carl Muckler of St. Louis wrote of this in the March *RW* ("Runner's Guide to St. Louis"): "At least four runners I talked to have made the complete evolution from track to transportation. In this process, the novice starts by going around the block until the cat-calls get to him.

"From there, it's the closest cinder track, where running appears normal. Then a farther drive to the Tartan track. After a certain amount of boredom, it's off the track and onto the campus, where

still about everything's acceptable.

"Next, with the confidence of a few club-level events, it's back to running in the neighborhood, to conserve work-out time and add miles. Finally, it's to and from work, avoiding a still further waste of time (and, may I add, gasoline)."

Ron Hill, the talented and inventive British marathoner, says mileage in the neighborhood of 100 a week is essential for anyone with serious long distance racing intentions. But the time pinch can be severe at this level.

"For the working man, and more especially the married man," Hill says, "it is not easy to fit in around 100 miles a week without conflict to social and family life. But with careful planning, it can be done. The easiest way of accomplishing this is by training twice a day—once before breakfast and once in the evening, preferably before the evening meal."

Does this mean getting up two hours before the birds, and eating dinner at 9 p.m.? Not at all. Hill leaves home an hour before he's due at work. He gets home an hour or so after the workday ends. By commuting on foot, he logs 15-20 miles a day. And his children still know they have a father.

Almost any runner has this option available. Distance and route are the main barriers. There's no sense in running to work if the office is just around the corner. But if the distance is a couple of miles up to 8-10, you're ideally situated for commute running.

The distance is ideal, that is, if it isn't all freeway or if it isn't dotted with stoplights every 200 yards. Shorter distances are better than longer ones because they give you a chance to detour away from busy thoroughfares and to use a variety of courses.

Ron Hill runs straight to work each morning, seven miles. But on the way home, he goes a different way to total between 8½ and 12. "I am not advocating that everyone should try to run seven miles in the morning," he says. "This became necessary by force of circumstances, representing the shortest route between home and work."

William Proxmire, the senator from Wisconsin, is America's best known running commuter. He lives 4-5 miles from Capitol Hill and runs at least one way most days. Proxmire has anticipated the argument of those who say, "Wait a minute. I don't live five miles from work I live 10 (or 15 or 20 or more)."

In an interview which appears earlier in this issue, Proxmire says, "The answer to that is that you park on

the outskirts (usually you can park there more cheaply, more easily, usually for nothing), and just get out and run the remaining two, three, four or five miles—whatever you want to run and can fit into your day."

Another argument is, "But I don't have a locker room at work. I can't do this without a shower."

Proxmire says, "I'm very lucky in that I have a locker room here in the Senate... (But) I used to do it just using a bathroom. I'd come in, sponge down and change into my regular clothes. That worked fairly well."

Ron Hill is more blunt: "In England, we don't shower as much as you do in America. It isn't really necessary. You're not really dirty, you know. I just sort of sponge off and dress. Besides, my A.M. workout isn't that fast."

John Loeschhorn, manager of the Starting Line Sports branch of *RW*, runs to work and back each day. We don't have a shower here. No problem. He sponges off with cold tap water and dresses for work. Depending on the day, one or two others of us do the same.

Getting clothes to work seems to cause more trouble than foregoing the luxury of a hot shower. John straps on a small nylon backpack. I've seen another runner carrying his clothes rolled up in each

hand like oversized batons. Since I only run in every other day at work, I can carry my clothing in my bike on alternate days. None of these solutions is ideal. John has to live with the bouncing pack on his back. The man on the street never has his hands free. I'm forever forgetting my belt, socks, etc.

There are problems with running to work. But the benefits outweigh these. The biggest benefit, Loeschhorn says, is consistency—two runs every day, five days every week for him. He doesn't take a weekday run longer than seven miles, yet he goes 90 miles or more a week. That regularity recently won him the AAU Western Regional marathon title and a trip back east for the national.

Ted Corbitt was also competing in that national marathon at Yonkers. Corbitt, now in his 50s, found years ago that running to work and back was the best way to get the high mileage he wanted.

Hal Higdon writes of Corbitt in *On the Run From Dogs and People*. "Sometimes he will rise at four in the morning and cover 30 miles... Even on his easy workout days, he runs to catch the subway. One morning he ran past a corner where two men stood. 'Man,' one of them said, 'that cat's late for work every morning!'"

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TRAINING WHILE TRAVELING

by Marc Bloom

How do you take traveling vacations and run at the same time?

For many runners this is easy. If you're single, or if you're married, childless and your mate runs, it is only a matter of finding a place.

Let's look, though, at what is perhaps the most common type of vacationing runner. A family of modest means has two or three weeks to get the most out of its annual trip. They—the husband (who runs), the wife and at least one (young?) child—are driving (car or camper) a few thousand miles through several states, hitting several of America's special places.

At home the husband runs just about every day, maybe 40-70 miles a week. He has run some road races and feels that some day he may be ready for a marathon. He has packed his running gear, hoping to maintain his hard-earned condition while not imposing on his family, which has planned the excursion carefully and hopes to enjoy it as best it can.

Having been in a similar position during two vacations, I offer the following advice:

1. Expect the worst: The worst for the runner would be little or, heaven forbid, no running. Problems involving travel time, the kids, meals, sightseeing and the weather can ruin running opportunities. Of course, it doesn't have to be that way.

2. What to bring along: Make a weather check of your itinerary. Travel guides and the like usually list average monthly temperatures. Consider that you may be forced to do some running in the evening when it might get cold, especially in mountain areas.

Try to keep all of your running gear in one large duffle bag to prevent a stray headband or heel cushion from getting lost in your wife's bathing suit. Since laundries may not be available, take along more than you need. And don't forget the Band-aids, tape, Vaseline, shoes, etc.

3. Where to run: Runners are always seeking new and different routes to make their efforts more enjoyable. Vacation running can provide such an opportunity. Try to obtain a detailed map of the town you are in. Motels, visitors bureaus and the Chambers of Commerce provide them—if available

at all. These maps are worthwhile in locating parks, golf courses, beaches, school tracks and other common running sites. In the absence of such facilities, the roads will have to do.

In running the roads, follow the same principles that you use at home: avoid the congestion of major arteries; beware of dogs in residential areas, pick out landmarks to assure an accurate return, and ignore the idiots who yell at you. Run with a wristwatch so you can estimate your mileage.

Many of the national parks present a problem for runners. The beautiful scenery and tranquil settings are quite appealing. But twisting auto roads obscure oncoming vehicles. Many hiking paths are strewn, quite naturally, with rocks and footing is unpredictable. Bears and other wildlife are said to react unfavorably to movement. Your motel may be several miles from the nearest paths anyway. (Once, outside of Teton Park in Wyoming, I ran laps around the motel in the absence of available paths.)

4. When to run: Here, careful planning is essential. The early morning probably is not a good time. Since you may face a full day of sightseeing, sun-soaking or highway travel, you will have to get up pretty early anyway, especially if breakfast is on your schedule. Perhaps your activities will be over by late afternoon. This would give you an hour or two for a workout and a shower before dinner. I have found that to be the best time. You can't break up your family's fun right in the middle of everything, and it does not seem advisable to run at night on unfamiliar (and sometimes unlighted) grounds.

Miscellany: If you expect to run and still do all of the things you'd been hoping to do on your travels, you will probably be on a very tight schedule. Therefore, it would be wise to make advance reservations, so that you won't have to kill a lot of time looking for places to stay.

Since it is doubtful that—with a family—you will be able to sustain a particularly heavy running schedule, try to plan your trip so that upon your return home you'll have sufficient time to build yourself up and prepare for your next big race.

Expect the unexpected. Last summer, traveling through parts of the South for about three weeks, I had these running experiences:

Carlisle, Pa.: This was only a one-night stop on the way to Virginia. Carlisle had always been known to me as a significant part of Jim Thorpe's youth. (Thorpe was a runner of sorts himself.) Its claim to fame in August was that the Washington Redskins conducted their pre-season camp there. This arbitrary resting place produced for me the most enjoyable run of the trip and one of the most satisfying in the time I have been running. Expecting dirt roads at best, I was to find a golf course and country club directly across the street from our motel.

The course was manicured with meticulous care. The greens were evenly shaven and the landscape was accentuated with trees and streams and a lake, and a score of knolls forced golfers to use motor carts. And here's the best part: at least one sprinkler watered each hole. It was about 80 degrees, and I decided to play a little game. I would run quickly from sprinkler to sprinkler, up, over and down the knolls, certain to hit each spray head-on.

Soon I became drenched, but I kept going back for more. The persons having cocktails at the main house ignored me. The few golfers on the course got a kick out of my periodic rinsing. My run lasted about an hour—a smooth, refreshing eight miles. I wondered if I could ever get bored if I ran on a layout like that every day. But I paid for my fun.

Skyland, Va.: Apparently I got a little too wet on that golf course because I came down with a nagging cold. No running at all during our two days in Shenandoah National Park. I took aspirin and cough syrup and took solace in the fact that running amid the mosquitoes would be less than exciting.

Waynesboro, Va.: I took one more day off just for security. Imagine getting really sick—no running and no trip.

Roanoke, Va.: My wife Andrea wanted me to rest another day (she always does), but I had to get back on the roads. I'd been eating too much, as I always do when injury or illness forces a layoff. After an all-day drive through the Blue Ridge Mountains, I squeezed in a 40-minute run through a "busy" section

*You can take your trip,
keep family peace, and stay in shape--with planning.*

of town before dinner. Several Roanokians felt compelled to talk to me. One yelled something stupid, reminding me of things I've heard in Brooklyn. I couldn't make it out in the southern accent. Another guy told me, "It's too damn hot to run, man," even though it really wasn't that hot. Finished well with no apparent effects of the cold.

Asheville, N.C.: It took us all day to get through the Blue Ridge Parkway. Thoroughly exhausted, I passed up my run. The nearby Biltmore Forest seemed, at a distance, to be a useful site. It took us awhile to get used to the hospitable southern greetings. In New York waitresses and gas station attendants seem to wear a constant scowl. People were especially friendly in restaurants as we placed our six-month-old Allison in an infant seat on top of the table.

Gatlinburg, Tenn: Finally reached Smoky Mountains National Park. Gatlinburg, just outside the park limits, must have more motels per square mile than any place in the South. Its main "strip" is a combination of Coney Island and

Las Vegas, without the filth of the former and the gambling of the latter. Runs of 45 minutes through town, hopping onto sidewalks to avoid the traffic, were all I could put together. A long hill of at least a half-mile added substance to the workouts.

Greensboro, N. C. : I recall this city as being a turning point in the civil rights movement. It was over a decade ago when blacks refused to vacate a "whites-only" lunch counter. I pondered that event and it gave me an odd feeling as I ran through some very wide streets in a nice section of town. I came upon a lake but thoughts of encircling it vanished when I noticed a "Private—No Trespassing" sign.

Weaving in and out of tree-lined blocks, I could gather no distinguishing landmarks, save the names of the streets. After about a half-hour I thought I was lost, which didn't surprise me because of my poor sense of direction. But I suddenly realized the road I was on would lead me right back to the motel. I finished after about 50 minutes.

Nags Head, N. C.: We're at the Outer Banks. The name has an element of mystery and adventure to it. The outer Banks. For most, the frame of reference is Cape Hatteras. After a 300-mile drive, I still managed to take in a workout. I started out onto the highway, running on the shoulder as cars zoomed past at 60 mph. After a half-hour, I was fed up with the traffic and went onto the beach. I should have done it sooner. A pleasant view of the Atlantic brought me back to Andrea and Allison after an hour.

I couldn't leave the beach without a solid run—barefoot. I had never run barefoot before and was anxious to experience it. At first I felt freer, not confined to boundaries of my shoes. I felt light and felt like sprinting. I edged around the surf, avoiding contact with the water and trying to find the most comfortable surface.

After a half-hour, I began my return. My toes felt a stinging sensation. I kept trying to ignore it and concentrate on the 10-15-foot waves, which punctuated an ominous setting of endless sea and relatively barren sand. Immediately after the run, I discovered what that stinging sensation was—blisters. Big blood blisters. They must have

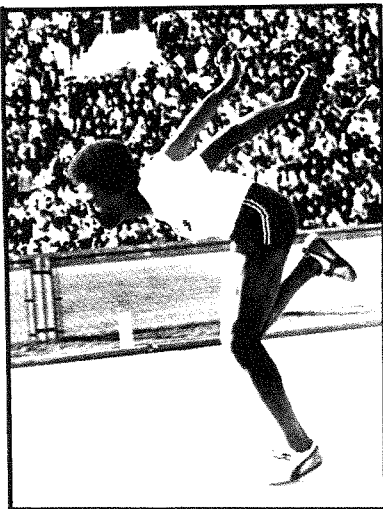
been caused by stepping on tiny bits of shells that were everywhere on the beach.

Williamsburg, Va.: I was back to the residential streets, which were immaculate. I didn't notice even a candy wrapper or ice cream stick or cigarette butt. And the homes reminded me of the Manhattan Beach section of Brooklyn—big and beautiful with good taste. The blisters were gone, but I felt sluggish for the duration of my 45-minute workout.

Two years ago, I ran in the Northwest and Canada. It was a rugged terrain in the thin air of 10,000-foot peaks. Last summer, at sea level except for the Smokies, it was the lush farmland of the border South whose inhabitants implored, "Y'all come back now."

This year, who knows? Maybe Mexico, eastern Canada, out West again? No doubt there will be the 300-mile drives, the hiking, the shopping, the sunbathing. But around 5 p.m., a couple of hours before dinner, I'm going to sift through my belongings and pick out a fresh shirt and shorts, and make sure my laces are tied tightly.

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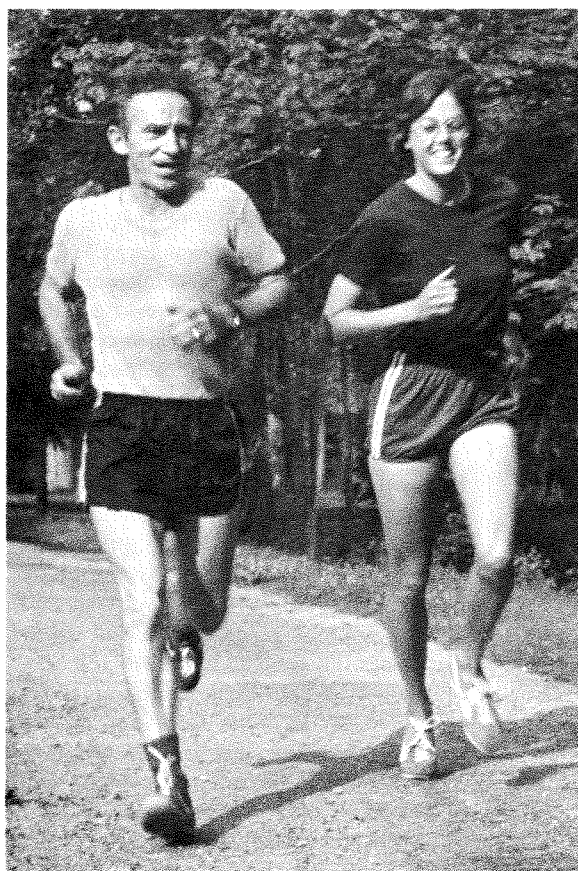
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THE MAINE QUALITY OF RUNNING

"We had not encountered a single car or another human. I thought this no longer possible."



Writer Dick Goodie and Robin Voelker run through the countryside of their native Maine. (Liz Goodie photo)

by Dick Goodie

The May issue wasn't kind to the state of Maine. In the article "Catching Up To California," Maine is ranked lowest of the states in number of top runners produced. But as Goodie's article shows, the quality of an area's running or an individual's run is not measured in numbers alone. The best runs often have nothing to do with time and distance...

Two runners moved down the road, past the tall-steeped white church, the near-by graveyard, then along the bright-colored, well-spaced rural homes.

It was early Sunday morning. Out across Frenchman Bay, we could see Cadillac Mountain, where, it is said, the sun first touches this continent.

In the clean spring air we moved easily through the sleeping Maine village. The only sound their footfalls on the black road. Following the road where it turned to parallel the ocean shoreline, we ran far out into the country.

"What is your secret strength food for running?" the slender, attractive woman asked me.

"Birdseed on breakfast pancakes," I answered. Early Sunday mornings, runners laugh easily.

I was training with Maine's lead-

ing woman middle distance runner, Robin Voelker. Our families had joined forces for the weekend to climb Cadillac and two satellite mountains—a planned trek of 13 miles.

Distance runners first, mountaineers second, we wanted to get in a solid nine-miler before the day's activities.

On other travels, I had trained over the hills of Silverton, Colo., and along the flats of eastern Texas. But Robin's village, besides having a rural setting conducive to distance running, had both hills and flats.

There was no life stirring along the houses we passed, no sounds. It was the first time I had run through a sleeping New England village at eight in the morning.

"We will visit Charlotte Gilbert on the backturn if you would like," Robin said.

"Charlotte Gilbert? At this hour? In running shorts? Does she understand runners?"

"Oh, I believe so." The smooth-striding school teacher was looking straight up the road. We were moving well into the country.

Pointing to a dark, ominous stand of trees alongside the road, Robin said: "One morning a large black bear stood there watching me."

"You were frightened?"
"I never glanced back."

As we ran, each striding a comfortable pace in separate lanes, I noticed the rich green fields, the square, stoutly-built cape cods, but mostly the fields and woods bordering the road, the trees sprouting leaves now the size of a cat's ear.

Overhead, heavy gray clouds of night were giving way to the lifting sun, leaving a morning sky of springtime blue. All around, I could feel things awakening and growing, prelude to a season of turning with all the hues and fragrance of spring's timeless promise.

We ran a pace commensurate to conversation—in Maine known as a jabbering pace. Leaving the pavement we followed a wagon-rutted road up through evergreens and tall-stemmed birches. It was an old logging road, a horse path worn through its mossy middle. We soon could see the wide blue ocean out over the trees.

"In winter, they haul logs down this road," Robin said.

"Horses legs must get tight and lame from the high snow and crust."

"In spring, I've seen the loggers walk their horses in the ocean's waves."

"Nature's own whirlpool," I said.

Every two miles, the course changed topographical features and scenery—physically and aesthetically gentle to the body and mind.

We ran into a grove of dark green pines. Suddenly, there was the feeling of a strange, invisible fog, fleecing and forcing before it all scent from the land—a moving force, heady with the fragrance of spring pitch, evergreen and last autumn's dried leaves on the forest floor.

We followed the earth-packed road down through the trees and could feel the coolness of ledge-moss and hear a brook tumbling off to one side.

After we crossed a log bridge, a startled blue jay sprang skyward like an exploded missile, flying the open lane over the road, shining brilliant blue when reaching a sun-splash above the dark trees.

In an uncommon moment, there was a realization, pulsating with each heart-beat to the inner-consciousness, that this run was no longer a mere "spring workout," that some unusual communion with the fields and woods and omnipresent ocean which we would see again from the next hilltop.

Accustomed to running through Portland's bad-smelling traffic, I thought of this country run as a stroll through some distant, unreal star-field. We had been running for eight miles and had not encountered a single car or another human. I thought this no longer possible.

"Maybe we should pass up visiting Charlotte Gilbert," I suggested. "I'm sweating like a goat."

"Charlotte won't mind," Robin persisted.

Running out of the woods, we entered a large, barren blueberry field, recently burned over. On the earthen road there was the track of a deer, perfectly cast in the thin film of green mud, rimming a drying puddle. Moments earlier, the deer had come down the hill and crossed the field.

A stone wall along the road spun time back more than a hundred years. In an instant, we went back to the Civil War.

"The Sixteenth Maine Blanket Brigade," I said remembering an impression I had read, "jogged and marched 36 miles in one day, with guns and equipment, to get on the line at Gettysburg."

"Our forerunners," she said, "but how could they run and carry things?"

"Brave effort, born of necessity."

"Too soon forgotten."

"The man Lincoln enshrined their battle in man's perfect speech."

"Old stone walls should be restored," said Robin.

Forced oxygen stimulates strange subjects.

We ran out of the blueberry field, through a hardwood stand and finally got on the black road. At the crest of a gentle slope, she said, "We turn up here for Charlotte Gilbert."

"Oh, the visit. I nearly forgot."

We stopped running and climbed a sand embankment, up through sumacs and stunted birches to a headstone on the flat of the hill. I saw moss and lichen embossed on the gray stone, standing straight and nearly hidden by wildgrowth.

Overhead, a tall pine tree formed a cathedral-like rotunda. I read the chisled words:

*"Charlotte Gilbert—Died 1845
Age 26—Farewell dear friends I bid adieu/
To this vain world likewise to you/
My time was short and blest is he/ who
called me to eternity."*

"This spot is sacred," I nearly whispered.

"I discovered this ski touring," said Robin. "She was just my age."

"She was a realist," I said, "and a loner to be buried up here. The world was fouled up then, too."

"I often wonder what she was like."

"She was born before Maine was a state."

"I put wild flowers up here."

"That's decent. She could have had a son in the Civil War."

"I wonder what she died from?"

"Child birth. Infected wisdom tooth. Hard to say in those days."

"She was heavy-hearted."

"And she was also very lonely."

After awhile, we went back down the hill. On the run again, I said: "But old Charlotte had a mind of her own."

"I knew you'd enjoy her."

Later in the day, I thought, while climbing Cadillac mountain there will be more time to think more about Charlotte Gilbert and her short, realistic poem.

OLDIES BUT GOODIES

As all runners and track fans know, 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 that we have several issues dating back to May, 1970 still available and we're offering them at **special low rates!** A few issues of special interest include:

● **May 1970**—Leading off with an article on Marty Liquori, and including the famous "Getting Track Back to Normal" article by Joe Henderson.

● **January 1971**—Feature articles covered Bill Dellinger's Oregon distance running crew, Percy Cerutti's always-controversial opinions on the correct running style, and the 'bests' of 1970. This was a 70-page "Super Issue."

● **November 1971**—Lots of prac-

tical advice on L.S.D. training, aging and running, nutrition, and the problems faced by some of our top runners.

● **July 1972**—Olympic excitement was in the air, but the RW staff stressed our goal of helping each runner reach his own personal Olympics, what they may be.

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*Eating and drinking carbohydrates
can help long run performances. But the methods are tricky.*

SOLID AND LIQUID ENERGY



PRE-EVENT DIET ROUTINE

BY BEN LONDEREE

Dr. Londeree heads the exercise physiology lab at the University of Missouri. Larry Young credits Ben with helping him to a bronze medal in the 50-kilometer walk by advising Young on diet manipulation.

To super-compensate or not, that is the question. Exercise physiologists have established that performance in long distance events can be significantly enhanced by storing extra glycogen in the appropriate muscles through diet and activity modification. On the other hand, in recent months several comments and letters have appeared in the *Journal of the American Medical Association* and *Runner's World* reporting the deleterious side-effects resulting from indiscriminant glycogen super-compensation.

It is time to clear the air and set the record straight. Can performance be improved by super-compensation? Can reckless tampering with the body chem-

istry be equated with playing with dynamite? Can glycogen super-compensation be practiced safely? The answer to all three questions is, generally, yes.

There are a number of principles that must be followed to experience success with super-compensation. The adverse results come from violation of one or more of the principles.

Principle 1: During prolonged heavy exercise, the carbohydrate stores are gradually depleted. Energy for exercise is derived almost entirely from fats and carbohydrates. Whereas the supply of fats is virtually inexhaustible, carbohydrates, due to volume requirements, are stored in limited quantities.

Principle 2: Absorption of carbohydrates from the blood in the form of glucose (obtained from the liver and intestines) does not occur at a rate that can sustain high intensity exercise. Only about 50 grams of glucose can be absorbed

from the intestines per hour, so the use of glucose-electrolyte drinks during the race serves only to retard glycogen depletion (50 grams of glucose probably is enough to supply only 20-30% of the carbohydrate needs during one hour of competitive running).

Principle 3: Depletion of carbohydrates leaves only fats available for energy, with the result that the intensity of activity must be reduced considerably (1-3 minutes per mile). Optimal performance requires that the runner avoid depletion during competition. Perhaps related to glycogen utilization is the fact that potassium is lost from the muscle cells also.

Principle 4: The rate of glycogen depletion is a function of the relative intensity (percent of maximal oxygen consumption). Below an intensity representing 50% of maximal oxygen consumption, about 50% of the energy is derived from fat. At higher intensities, an increasing proportion of the energy is obtained from carbohydrates. This means that glycogen depletion can be delayed by reducing the speed.

Principle 5: The time to exhaustion and glycogen depletion is directly related to the initial concentration of glycogen in the muscles. In other words, with higher beginning muscle glycogen levels, an individual can work at a particular intensity of exercise for a longer period of time.

Principle 6: In order to bring about glycogen super-compensation, the body first must be stimulated to synthesize extra glycogen-storing enzyme through depletion of the present supply of glycogen. A high-carbohydrate diet without prior glycogen depletion will not produce super-compensation.

Principle 7: Whereas liver glycogen is readily depleted by starvation, a low-carbohydrate diet and/or prolonged exercise, the only way to deplete muscle glycogen is through exercise. Carbohydrate cannot escape once inside of a muscle fiber.

Principle 8: Depletion of muscle glycogen stores occurs only in the active muscle fibers. Consequently, a significant amount of the depletion activity must be identical with the activity for which the individual is preparing.

Principle 9: The greater the glycogen depletion, the greater the stimulation for the synthesis of glycogen-storing enzyme will be. This, in turn, will increase the potential for super-compensation.

Principle 10: The longer the depletion is maintained, the greater the stimulation for the synthesis of glycogen-storing enzyme will be. As above, this increases the potential for super-compensation.

Principle 11: Depletion can be maintained with a low-carbohydrate diet and continued training. In fact, such an approach will make it less necessary for complete initial depletion via exhaustive exercise and thereby reduce the risk of incurring fatigue injuries. On the other hand, any major modification of the diet will produce considerable stress upon homeostasis, and the hazards may outweigh the advantages. This would be an even more important concern for individuals with health problems. After age 30-35, the ability of the body's metabolism to adjust to dietary changes declines in many persons.

In addition, failure to eat a balanced diet may lead to deficiencies of some vitamins (particularly water-soluble vitamins) and minerals, and may call for some dietary supplementation. While in the glycogen-depleted state, the general weakened condition may make the individual more susceptible to infection and injury.

Principle 12: A small amount of carbohydrate (about 60 grams per day) is essential for adequate functioning of several important systems in the body, e.g., the nervous system, red blood cells and kidneys. Reliance upon fats for energy leads to a condition known as ketosis, i.e., accumulation of ketone bodies, which produces metabolic acidosis. Excess ketone bodies are excreted by the kidneys, but in the process other key substances are excreted as well. These lost substances include sodium bicarbonate (thereby reducing the acid buffering capacity of the body fluids), electrolytes (e.g., sodium, potassium and chloride) and water.

In addition, some proteins are broken down to supplant the carbohydrates. Low blood glucose leads to depression of the central nervous system. Symptoms of glycogen depletion, low blood sugar and impending ketosis include, first, a general muscular weakness upon exertion (similar to the weakness that is associated with intestinal flu) and, subsequently, central nervous system impairment as evidenced by dizziness, headache and inability to concentrate. The central nervous system depression can be avoided and alleviated by an intake of a small amount of carbohydrates, particularly at the first meal after exercise. A booklet, *Brand-Name Carbohydrate Gram Counter*, which lists the carbohydrate content of many brand name foods is available at many supermarkets and can help you plan your dietary composition. Drinking of large quantities of water will help to protect against dehydration.

Principle 13: Before commencing the high-carbohydrate diet replete through appropriate physical activity. This is to make sure that you are depleting as much as possible and probably will require only 5-10 miles, depending upon the carbohydrate content of your diet since the previous depletion run. If you have not used the low-carbohydrate diet, then this depletion run must be much longer (15-20 miles). This latter approach, of course, exposes the individual to an injury very close to the time of competition.

Principle 14: Glycogen super-compensation (following depletion) will occur only to the extent that carbohydrates are made available in the diet. The greater the percent of carbohydrates in the diet, the greater the super-compensation will be. Adequate proteins (2-3 ounces per day), minerals, vitamins and lots of water should be included in the diet also.

Principle 15: Do not overeat when

on the high-carbohydrate diet. Although you will need a positive caloric balance in order to store energy in the form of glycogen, the reduced activity will more than take care of this if you eat your normal amount of food. The important point is to increase the dietary carbohydrate percent. The modified diet is enough stress without the added problem of handling excess food. Actually, it is best to eat small meals and include a couple of snacks between the meals. In this manner, glucose from the intestines will be available for storing in the muscles and liver most of the time, thereby enhancing super-compensation.

Principle 16: Drink a large excess of fluids while on the high-carbohydrate diet. About 3-4 grams of water are stored with every gram of glycogen. If an inadequate supply of water is drunk, the extra water is withdrawn from other body sources and a relative dehydration will occur. It is not uncommon for infections to result from such dehydration. A good indicator of proper water intake is clear urine. An amber urine means that you need more water.

The water associated with stored glycogen will be released as the glycogen is consumed during activity, and this water will be available for other vital processes, e.g., temperature regulation. For example, it is possible to store two pounds of glycogen along with 6-8 pounds (3-4 quarts) of water during super-compensation. These figures are twice the values normally found. Very few runners will consume this much water (the extra 1½-2 quarts) from external sources during a long race. However, even when super-compensated the runner should drink fluids during the race.

Principle 17: Activity will tend to reduce super-compensation and should be avoided while on the high-carbohydrate diet. Stay off of your feet as much as possible.

Principle 18: Once super-compensation occurs, the excess glycogen-storing enzyme is inactivated and the muscles will tend to burn off the excess glycogen during normal activities. Therefore, timing of the peak super-compensation is rather critical and varies among individuals—typically 2-4 days on the high-carbohydrate diet. The time will depend on individual genetic differences, and will tend to be shorter for those persons who regularly deplete and super-compensate during their normal training and diet regime. Some symptoms that the peak super-compensation has passed in-

clude: bloated feeling, loose bowels and excessive urination.

Principle 19: Reduce the quantity of carbohydrates as well as other foods in the diet during the several hours before the event. There is evidence that a large amount of carbohydrates at this time may impair performance.

Principle 20: It is not necessary to fully super-compensate for all competitions. For short activities, it probably would be beneficial to increase the percent of carbohydrates in the diet for 1-2 days only for the purpose of insuring that glycogen stores are not low. For events lasting 30-60 minutes, moderate super-compensation would suffice (e.g., 10-mile run 48 hours before competition followed by a high-carbohydrate diet and rest). For longer periods of competition, moderate super-compensation would be beneficial, but utilization of the full protocol would produce better results. Consumption of a dilute glucose-electrolyte solution during the event would help also.

Principle 21: If, after weighing all of the pros and cons, you decide to super-compensate, try it in stages during your training. For example, start with a long run followed by a high-carbohydrate diet (start with principle 13). Keep a detailed log of what you do and what happens. Notice how you feel when running at the increased weights associated with super-compensation. If satisfied, then try the entire series (depletion, low-carbohydrate diet, repletion, high-carbohydrate diet), but stay on the low-carbohydrate diet for only one day. If there are no adverse effects, then extend the low-carbohydrate diet gradually to a maximum of 3-4 days. Do not take short-cuts. Remember, you are playing with biochemical dynamite.

Another use of a modified form of super-compensation occurs when long runs on successive days are taken. On a regular diet, recovery from depletion will not take place in one day, and consequently the runner will experience greater fatigue each day until he finds it impossible to perform properly or an injury occurs. However, a relatively high-carbohydrate diet permits use of the quantity programs without exhaustion.

At this stage you should be fully cognizant of the potential benefits and hazards of practicing glycogen super-compensation. One reason for the adverse experiences reported in the literature is due to the large number of principles to consider and the resulting confusion among naive users.

In March 26, 1973, issue of the

Journal of the American Medical Association (also in the March 1973 *Runner's World*), Gabe Mirkin, M.D., reported a case in which a 40-year-old runner experienced angina and ECG modifications while super-compensating. The term used in Dr. Mirkin's report was "carbohydrate-loading" and, as you will see, was very appropriate. After three days of a diet consisting of cheese (which, by the way, contains carbohydrates), meat and turkey, the subject switched to a diet that included as much bread as he could eat for three days. He ate almost two loaves of bread at one meal; this represents the equivalent of one day's energy needs, and I assume that his other meals were comparable. As a flagrant violation of principle 15 (overeating), I feel certain that gluttonous quantities of fats and/or proteins would have produced adverse results also.

The second case strikes closer to home and was in the "News and Views" column of the March 1974 issue of *Runner's World*. Dr. Richard Hessler sought my counsel regarding super-compensation procedures prior to a marathon. He drank lots of water while on the low-carbohydrate diet, but apparently due to a misunderstanding he restricted his water intake when he converted to the high carbohydrate diet (violation of principle 16) and suffered an infected prostate. Although Dick suffered a great deal of discomfort and was unable to compete in the race, he confided that the daily physical therapy was like a second honeymoon. Therefore, our friendship remains intact.

Upon reading Dr. Mirkin's report, I felt that the case was so ridiculous that most observers would recognize the prob-

lem. However, Dr. Hessler's experience suggested that a written set of guidelines with appropriate commensurate and warn potential super-compensators of the hazards. In addition, even though Dr. Hessler and others have argued against tampering with the body chemistry on moral and/or ethical grounds, I am not so naive to think that athletes would refrain from using legal but also hazardous procedures that would improve their performance.

Also appearing in the March 1974 issue ("Medical Advice") was a letter from Ralph Nelson, M.D., Head of Clinical Nutrition Section at Mayo Clinic. Dr. Nelson referred to Dr. Mirkin's report, to angina-like leg pains in Swedish runners using super-compensation, the disadvantage of increased weight due to glycogen hydration and to the fact that excess stored glycogen can destroy muscle fibers. Unable to find support in the research literature for some of these claims, I had an interesting telephone conversation with Dr. Nelson in order to gain insight into his written comments.

The label "angina-like symptoms... in the leg muscles" was Dr. Nelson's interpretation of Bergstrom and Hultman's (*JAMA* 221:1005, 1972) warning of heaviness and stiffness in the muscles of sprinters who need only limited amounts of glycogen. Conversely, in distance races the increased weight due to glycogen hydration cannot be considered significant when times under normal and super-compensated conditions are compared. Either the small increase in weight has little or no effect on performance, or the benefits of large stores of glycogen and endogenous water far outweigh the disadvantage of glycogen weight. Perhaps the extra weight would hamper performance in which glycogen needs are minimal.

The potential hazard of excess stored glycogen upon muscle fibers has been substantiated in certain disease states where key glycogen storing or breakdown enzymes malfunction or are lacking. However, in these diseases the glycogen may accumulate to six times normal, remain in the tissues unused and may be defective. Conversely, in super-compensation the glycogen concentration seldom exceeds 2-2½ times normal. If unused through physical exertion within about two days, the body's metabolism adjusts to use the excess glycogen in normal daily activities within another 2-4 days. Heart muscle, in contrast to skeletal muscle, responds much more transiently to dietary modification. Myocardial super-compensation occurs within four hours and returns to normal within 8-48 hours.

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DRINKS FOR THE ROAD

BY PETER VAN HANDEL

Van Handel works with Dr. David Costill in the Human Performance Laboratory at Ball State University.

The previous article and numerous others have discussed the importance of stored carbohydrate (glycogen) for endurance running and have presented protocols that runners may follow in an attempt to "carbohydrate-pack." It has also been emphasized that this technique does not benefit everyone and, indeed, may not be advisable for certain individuals.

As would be expected, there is a large group of runners who, for various reasons, cannot or do not wish to "pack." However, based on the available exper-

imental and practical evidence, we have to concede that *all* runners need to maintain adequate carbohydrate levels during endurance exercise. This article is directed to these athletes — the ones who are asking themselves, "How do I insure that adequate carbohydrate is available to the muscles if I can't carbohydrate-pack?"

The answer is obvious. You take sugar or some other form of carbohydrate while "on the road." Hundreds of runners answer the gun with dextrose

Grab a drink as early and as often as you can in hot races. (Schwab)

There are two points where Dr. Nelson and I agree. First, super-compensation is potentially hazardous, particularly for individuals who may have underlying health problems. Secondly, a point not mentioned before is that there is no evidence available about the long-term effects of repeated super-compensation. Therefore, the person using these procedures may be trading future health stock for improved performance now.

My recommendation as an exercise physiologist familiar with the research and as a competitive runner with personal super-compensation experience is to use moderation. Make sure you understand all of the principles and hazards discussed here before attempting the procedures. Use caution at all times. Although minor alterations in the diet probably pose little danger, the use of the whole set of procedures (deplete, low-carbohydrate diet, replete and high-carbohydrate diet) should be attempted only after gradually leading up to them and then only 2-4 times per year.

Undoubtedly, many *Runner's World* readers have attempted to super-compensate. However, we are generally unaware of the success and difficulties experienced by running practitioners. Therefore, I am establishing a depository for receipt of reports from those individuals who are willing to share their experiences regarding super-compensation. The results will be summarized and made available to interested persons—perhaps through another article. To insure valid interpretations, it will be necessary to standardize the format of the information. Therefore, please submit as much of the following data as possible:

Name. Address. Phone. Age. Sex. Race. Marital Status. Occupation. Yearly income. Training History. Brief History of competition including yearly bests in the one, five or six and 10 miles, 30-kilometers and marathon over the last five years. Pertinent available medical and physiological history, including weight, weight, percent fat, blood chemistry, other lab tests, health problems and maximal oxygen consumption. Detailed experiences with super-compensation, including diet composition, training and other activities, race results, problems and environmental factors. Experiences with other dietary modifications and supplements. Any other information which you feel is pertinent.

All information will be kept confidential and identified by code numbers only. Please send the information to: Ben R. Londeree, 36 Rothwell, University of Missouri, Columbia, Missouri 65201.



tablets tucked away someplace in their uniforms, while the most common form of carbohydrate ingestion occurs in the form of a cup of Gatorade, ERG or some other drink every few miles. However, there are problems with taking carbohydrates on the run, and for all practical purposes these cannot be separated from the problems associated with fluid intake. Therefore, this discussion centers on the drinking of carbohydrate solutions.

Basically, most runners drink the various commercially available "ades" or other homemade solutions to provide quick energy. I've seen national caliber endurance athletes take honey on a spoon in an attempt to delay fatigue during a long race. Others drink both for the energy supplies and to help delay or prevent dehydration and the symptoms of heat stress when the runs are held in hot weather.

But a nagging question remains: "Does the substance you are taking during the run to provide energy really do the job?" Unfortunately, there is not a simple "yes" or "no" answer since there are several complicating factors.

Generally speaking, the following are true: (1) the greater the volume of fluid in the stomach, the faster it tends to leave the stomach, but (2) the more sugar or carbohydrate the fluid has, the longer it takes to leave the stomach, and three of these factors interact in an athlete drinking carbohydrate solutions during a race. The importance of this is that if the fluid is in your stomach, the carbohydrate present can't get to your muscles.

Let's examine these factors in

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greater detail.

● **Effects of Volume of Fluid in the Stomach:** The falling off of pace and the fatigue felt as the carbohydrate stores become depleted isn't due to a sudden drop in energy supplies. Rather, the evidence indicates a gradual and continuous depletion of carbohydrate stores. At the same time, large sweat losses may occur. Present distance running rules regulate fluid intake during an event to certain intervals. This combined with the sweat losses, carbohydrate depletion and the problems of "voluntary dehydration" usually means that by the time fluid is available to the athlete, it is too late to solve the immediate problems. The dehydration and fatigue have already started to set in and drinking a large volume of fluid loaded with "energy" can't bring the body back to a normal state, since it takes a relatively long time for the material to leave the stomach.

Indeed, Dr. David Costill has reported that national class runners attempting to consume large volumes of a sugar solution during runs at competitive pace complained of stomach discomfort (fullness) and an inability to consume fluids after the first few feedings. This was in spite of the fluid need as evidenced by subjective reports of muscle and nervous system fatigue, and by the sweat losses.

While volume is the least important of the three factors mentioned, it does have some effects on performance, especially when combined with the next two factors. Therefore, based on our experience with distance runners, we suggest that drinking approximately one pint 10 minutes *before* the run, and then supplementing with frequent (every 10-15 minutes) drinks of small volume, is the best procedure to follow.

● **Effects of Sugar Concentration:** The next question is, "What do we drink?" I've already mentioned that in general the more carbohydrate in the drink, the longer it takes the solution to get out of the stomach. The energy available in the drink *cannot* be used until the carbohydrate leaves the stomach and enters the blood from the small intestine. Numerous studies have shown that salt solutions leave the stomach very rapidly and the addition of even small amounts of sugar can drastically slow down the rate of emptying. This slowing delays the movement of water into the circulation.

During endurance running in the heat, the prevention of dehydration and heat stress is of utmost importance, carbohydrate supplementation is second-

ary. Therefore, under these conditions the sugar content of the drink should be minimal so that water can rapidly enter the circulating blood.

Various commercially available drinks claim to have everything you need to take during an endurance run. Unfortunately, there is little hard data to back up these claims. In fact, the evidence seems to indicate that champion distance runners are able to complete a marathon with little or no fluid intake. However, in the process they sustain water losses of 6-10% of their body weight and rectal temperatures in excess of 105 degrees (F). This obviously places severe demands on the runner and exposes him to the hazards of muscle cramps, heat exhaustions and heat stroke.

All in all, the research studies on the effects of drinking a carbohydrate solution during an endurance event on the body's energy producing mechanisms are contradictory. Costill reports that the carbohydrate taken during severe endurance exercise does not reach the muscles in significant amount, and the little that is used to produce energy takes 20-30 minutes to reach the muscles from the time it enters the stomach. This tends to support the idea of drinking *before* the run and then supplementing at frequent intervals.

Costill's data also indicates that while the contribution of the ingested carbohydrate to muscle metabolism is minimal, it does seem to conserve liver carbohydrate stores by maintaining blood sugar. The blood sugar and liver stores are seemingly used to prevent brain and nervous system fatigue.

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While Costill's data points to insignificant use of carbohydrate by the muscles, another research study estimated that 60-80% of the carbohydrate used after the feeding came from the drink. Here again, though, the time from intake until utilization was rather long. Factors such as intensity and type of work play a role in these studies so that comparisons between the two are difficult.

Other supportive evidence for fluid intake before the event comes from the 1968 Olympic 50-kilometer cross-country ski champion who was reported to have drunk more than a quart of 40% sugar water before the start of his race. This fact seems to indicate a wide variability in tolerance to drinking carbohydrate solutions, as most people could not swallow a 40% sugar solution (commercially available drinks are about 5-10% carbohydrate).

One last comment on sugar concentration: There seems to be no reason for eating dextrose tablets, honey, etc., as fatigue sets in during a race. The material remains in the stomach too long to be of any practical value in supplying immediate energy. The benefits of dextrose would be felt some 30 minutes after consumption and it also tends to keep water in the stomach.

Effects of Exercise Severity:

Research has shown that exercise tasks which exceed approximately 70% of the individual's maximal ability to use oxygen inhibit the emptying of the stomach. Champion distance men can run an entire marathon in excess of 80% of this capacity. For example, in tests on Derek Clayton in our laboratory it was

shown that the pace for his 2:08 marathon was in excess of 86% of his maximal ability.

Obviously, not all of us can function at this level. The point is that many runners can exceed the level where stomach emptying becomes affected by the work intensity. The carbohydrate (and water) tends to stay in the stomach longer.

Let's tie things together at this point. I've already stated that the factors of volume of fluid in the stomach, the sugar content of the fluid and the severity of exercise all interact in the athlete who drinks on the run. This interaction is more complex than I've made it seem, so that research data on the topic of fluid intake during exercise is hard to evaluate. In turn, no specific recommendations can be made at this time concerning how much, when and what a runner takes to provide energy and prevent dehydration during a long run.

However, based on the evidence to date and our own experience with distance runners, the following suggestions are made:

1. In order to minimize dehydration, a pint of fluid should be consumed 10 minutes before competition.
2. In order to prevent stomach distress (fullness) and to promote maximal entry of the fluid into the blood, the drink should contain very little carbohydrate (less than 2.5%). This amount is adequate for energy produc-

tion and use by the nervous system.

3. The fluid should be taken at 10-15 minute intervals during the run in amounts of about one-half pint.

4. Runners should be vocal in emphasizing to the governing body the need for rules changes regarding fluid intake during distance races. (The current rule allows no drink in the first seven miles of long distances races.)

In addition, scheduling should be such that these races are held during the cool hours of the day to minimize heat stress problems. The present situation seems to benefit the officials, sponsors and spectators, and is not in the best interests of the athlete.

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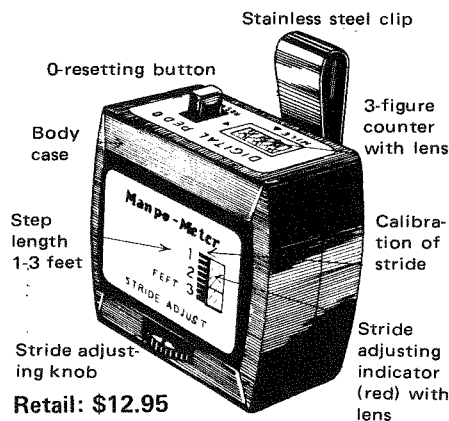
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“Lean into those hills,” is part of Hal Higdon’s advice on racing uphill effectively. Finn Tapio Kantanen (right) is doing just that. (Pentti Perttula photo)

SECRETS OF THE HILLS

by Hal Higdon

Last fall, I attended a multi-school high school cross-country meet in which my son Kevin, a ninth grader, was competing. The course contained a few rolling hills, and before the race I had advised Kevin on the technique to use in running those hills. During the race, however, I worried whether or not he would remember my advice, so as he passed me, tucked into the middle of a pack going downhill, I shouted instructions at him: “Lean into it! Stretch your stride out!”

From behind me, like echoes off the side of a mountain, I heard the voices of two coaches who had teams in the meet. “Lean into it!” one of

them was shouting. “Stretch it out!” cried the other.

I was amused. Obviously, neither coach had given much thought to the techniques of running hills before, but they didn’t want to miss an opportunity of passing on some information, *any* information, which might help their runners succeed.

Kevin, however, was not amused. “Why are you giving away our secrets, Dad?” he complained to me after the race.

At the risk of further irritating my elder son, I am now going to pass those secrets on to the readers of *Runner’s World*. I have been to the moun-

tain. I have obtained the word. I am convinced that any runner who follows the advice I have gathered can greatly improve his times on hilly courses. To paraphrase the diet ads: Take seconds off in only a few weeks just by following our program.

I am an excellent hill runner. I say this with no pretense at modesty. I sincerely believe that I can line up against nine out of 10 runners and beat them running hills. I may not necessarily beat them physically, because physical talents vary in individuals. But I believe I can perform better on a hilly course, relative to our respective abilities, than I would on a flat course or on a track.

That’s Higdon’s first secret: *Don’t be afraid of hills*. If you convince yourself that you run hills well, you probably will do well on hilly courses simply because of your positive mental attitude. Runners who think they have problems on hilly courses psych themselves out before they even start.

I have been running for a quarter-century. I am not a good hill runner because I have been running a quarter-century, but despite it. For a quarter-century I ran in hilly cross-country and road races without giving the hill much thought. In the spring of 1973, I decided to give hills some thought.

That’s Higdon’s second secret: *Think about hills*. Think about how you run them. Think about how others run them. Talk to other runners about the techniques they use, if any, to get up and down hills in the fastest possible manner. If after giving the subject some thought you reread this article and decide that Higdon’s theories are all rubbish, you will be a better hill runner simply because you have thought about hills and decided upon a positive approach.

While we are speaking about rubbish, Higdon’s third secret is: *Throw away the October 1973 issue of Runner’s World*. If you don’t want to trash the entire issue, at least take a dark crayon and scribble all over pages 20 and 21. Those pages contain an article entitled: “Gearing Yourself for Hills.” The article is rubbish. The advice given in it is wrong—not all of it wrong, but most of it wrong.

What particularly is wrong is the

suggestion to cool it going downhill, as in the quote from Al Lawrence: "The easiest and most obvious mistake is to run down the hill too fast. It is far more desirable to sacrifice a few yards by running slower and coming off in good shape." All I can say about that advice is that I hope all the runners I have to compete against this fall on hilly courses have committed that article to memory.

There is some good advice contained in the article, but the runner who follows all of it is going to get beaten.

I didn't start thinking about hills until after the 1973 National AAU 25-kilometer championship, which was held over an extremely hilly 4½-mile lap course near Kansas City. I spent most of the race running in the vicinity of Charles Warthan, my teammate on the Indiana Striders. Charlie has short legs; I have long legs. We never ran together in the race, but rather were constantly passing each other. There were about seven stiff hills on each lap. Going downhill I would pass Charlie; going uphill he would pass me.

Charlie eventually finished in front of me because, I thought, the finish line was just past a series of steep hills. I felt if the finish line had been a half-mile farther down the road on the flat, I would have beaten him. On the other hand, move the finish line still farther and he would have beaten me. The Lord giveth, the Lord taketh.

I remained in Kansas City the week after the race and trained several days on the same course. At this point, I began to think about that particular course and how I might have run it better. I came away from my several workouts over this course convinced that had I the opportunity to rerun the race, I would have improved my time by perhaps several minutes, not merely because I was by then a better hill runner, but because I knew the course. Knowing the course I could pace myself better over it, since I would know when to attack each hill. *You must know a hilly course to run it successfully.* Mark that down as Higdon's fourth secret.

Several years ago I ran the Pike's Peak marathon. I had done no altitude running in years. I hadn't seen the course before. Yet I ran well, partly because I had no fears. (Remember Higdon's first secret.)

I was fifth to the top in 2:41 and broke the masters' record (since broken by someone else). I did well despite the fact that I walked most of the way from timberline. I was passed at one point by another runner/walker who was do-

ing a variation of scout's pace: alternating running spurts with walking spurts. I eventually adopted this tactic and passed him back. I feel that if I had known the mountain and known the course I could have done much better. From what I learned on that first ascent, I feel I could probably go back and, everything being equal, improve my time by five minutes.

I didn't make the descent because I thought it was an act of insanity to work so hard to get to the top and then not stick around to enjoy the view. Also, I was afraid to injure myself by running full speed down an unfamiliar trail.

I believe that if I could take three or four weeks to train at Pike's Peak, and adapt myself to the altitude, and familiarize myself with the course, I could improve my time by 10 or 15 minutes. But this brings us to Higdon's fifth secret: *If you're going to race on hills, train on hills.* You can't expect to run well on hilly courses unless you train over similar terrain, at least some of the time. If you are forced, because of your habitat, to run always on flat, you probably will also run best on the flat.

Which reminds me of some things that Jim Ferstle told me last summer while I was staying in San Diego. We trained together on several occasions. Ferstle went to Bowling Green University, whose cross-country course mostly is as flat as a pond on a windless day. There was one man-made hill.

"We used to speed up just before we got to the hill, just like before the water jump in the steeplechase," advised Ferstle. "We'd drive our arms, lengthen our stride and move on our toes. Once we got over the top of the hill, we'd keep going at that pace for another hundred yards. A lot of runners are tired when they reach the top of a hill and have a tendency to relax. If you keep pushing the pace, you often can break contact at this point."

Ferstle admitted, however, that most of the Bowling Green runners weren't very good at running hills. I also feel he's out to lunch when he suggests speeding up before reaching a hill, like in the steeplechase. I don't even think it's good advice for running the steeplechase. He's on sounder (less hilly) ground when he advises not to relax (and thus slow down) once you've reached the top.

But the important thing to learn from Ferstle is that: *Sprinting uphill can be used as a tactical weapon.* Forget for a moment that I've stolen the idea from Jim, and label it Higdon's sixth secret.

Moving uphill at a fast pace is a waste of energy. You can tire yourself unduly and pay for it later. Charging a hill is certainly something you would not want to consistently do during a marathon. However, in shorter cross-country races you can break contact with a rival not only by pushing up a hill, but also over that hill. Once you have stolen a lead by such a maneuver, you may be able to hold it later while slowing down. Your opponent may become discouraged, slow down and not reach his full potential in the race. Running is physical, but racing is psychological.

I first ran the Dipsea in 1952 when I was still in college. I ran over the course again in 1973 during a visit to the San Francisco Bay area with a group of British veteran runners. I would love to race the Dipsea once more since with their system of handicapping according to age instead of ability I would have a built-in edge. But even with the handicapping system, I don't think I could do well at the Dipsea (a 6.8-mile trail race which starts at sea level and rises to 2000-plus feet before descending to sea level again) unless I had at least a week to practice on the course—and then another week to recover from that practice.

The problem is not going up, as one would suspect, but rather going down. The last several miles of the course consist of a flat-out, completely out-of-control, downward bash, and it is a question of how does one run at maximum speed and survive.

Pax Beale compares the Dipsea to downhill ski racing. He says that when you're skiing down a mountain, you shush the steepest spots then scrub off your speed when the slope eases. Translated into running terms this would mean that you forget the danger and let it all hang out on the steepest dips, and then brake your speed on the more level areas. I always was a poor skier, out of fear of breaking my neck, so perhaps I should stay away from the Dipsea.

Beale also passes on advice from Byron Lowry, who claims that if you land on both feet now and then, instead of landing from one foot to the other, it will help ease the blows. One could hardly hop down the mountain two-legged, which simply reinforces Higdon's fourth secret—that you must know a hilly course to run it fast.

Last August, the National AAU Junior 15-kilometer Run was held in Michigan City, Ind. Kim Nutter of West Virginia University, stayed at my house and Steve Kearney, my teammate on

the Indiana Striders, came over for a visit. Both runners are long and lanky. We talked about hills. I tape recorded our conversation. Kim was discussing some advice he had received, maybe from his coach.

Nutter: From what he told me, whenever I came to a hill I was to attack it, and because of my long legs cut my stride and bend over from the hips and pump my arms because your legs will only move as fast as your arms. He said to just take one deep breath before you really start the ascent and, you know, take it from there.

Kearney: Do you raise your arms?

Nutter: Well, I run bent.

Kearney: Now, something Steve Wynder taught helped me. When we were running in the dunes he got me to drop my arms and that relaxes me running uphill. (Steve Wynder, another teammate, attended Ball State and used to kill us when we ran up and down steep dunes.)

Nutter: I was told to drop my arms coming downhill.

Kearney: I think this is something where it's just dunes running, where it's like going up a steep mountain. I mean, really bashing it. Sometimes you think you're not getting anywhere. When you drop your arms, it allows you to breathe easier or something.

Higdon: There are several types of hills. On hills that slope gently up, you can hold your rhythm. On others, particularly in cross-country, they force you to break your rhythm. *Techniques of running are different for different hills.* (You readers may not have realized it yet, but you have just encountered Higdon's seventh secret.)

Nutter: Regardless of the type of hill, I cut my stride.

Kearney: Dick Cleveinger taught us to gather ourselves and drive.

Nutter: When I run downhill, I just drop my arms. Not all the way down. I don't really use the full extent of my stride, still, going downhill. But when I level out, it seems like I have more speed at that point. A lot of people can't run downhill very well. I've run in races where I've beaten people simply because of my ability to run downhill.

Kearney: When I was starting out, that was one of my problems. I couldn't run downhill. The coach was really upset with me because I had such long legs and people were passing me going downhill. I think it was fear on my part to go all-out. In a long race, you don't want

to go all-out downhill, because somehow it affects you.

Higdon: You may get going so fast it's as though you're sprinting.

Kearney: And you're using energy bringing your legs up, even if not as much as on the flat.

Higdon: Another problem, though—particularly on steeper downhill stretches—if you slow yourself down you may also be using excess energy.

Kearney: You can usually judge. There's a balance point where you reach a steady state in your breathing and your tempo. If you're seasoned enough you know you don't want to go faster or you'll pay the price further on.

Kim Nutter and I encountered each other about a month later at the 15-mile race in Charleston, W. Va., and the course presented an interesting challenge. There was maybe a mile or more of flat running to the hills across the river from downtown Charleston. Then there was several miles of steady uphill running followed by several miles of steady downhill running, before crossing the river again to finish the last nine miles on flat city streets.

With my vast knowledge of hill running, I decided to blast the first mile flat-out, relax going uphill and allow people to pass me, not go full-out downhill but hold my position, then drive the last flat stretch at which point I assumed the hard hill runners would start dying in the heat.

I did just that, leading most of the first mile, sagging to around 20th going uphill, holding that position going downhill, then moving up through the pack. But the heat didn't prove as bothersome as I had hoped and not enough runners fell apart (although one of them was Kim Nutter, who had been even with me through the hills). I missed the top 10 by one place.

If I return to Charleston this year, I will adopt different tactics: run easy during the first mile, push the uphill to at least hold position, let fly going downhill and not be afraid to pass people, then hold on to what I have over the long, flat stretch. I'll probably still miss the top 10, but at least I'll be out there thinking as well as running.

NEXT ISSUE: Higdon concludes by detailing the techniques of many of the country's best hill runners—notably Kenny Moore, Jon Anderson, Jeff Galloway and Tom Fleming. The much neglected area of downhill running is covered.

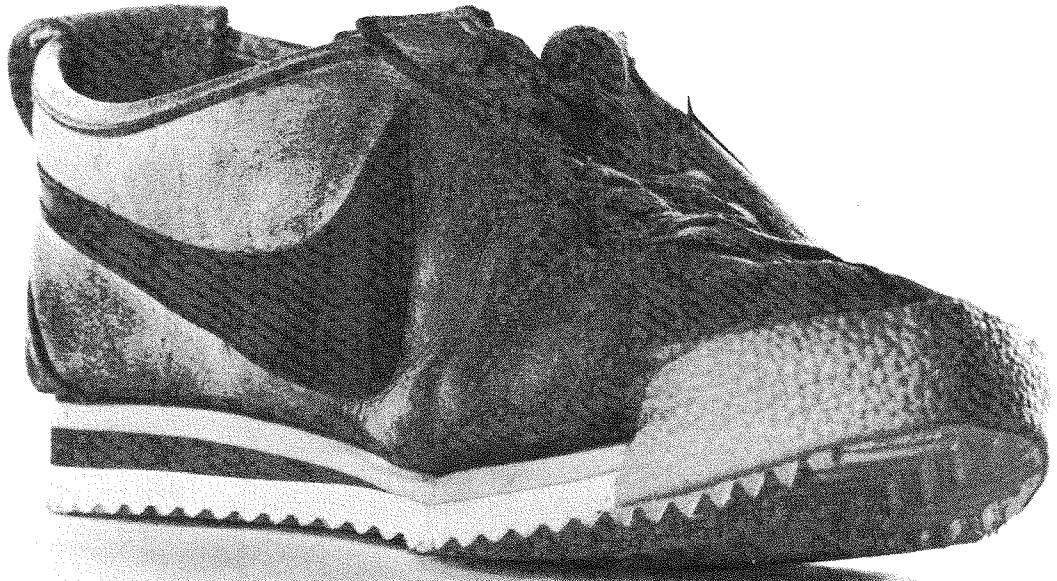
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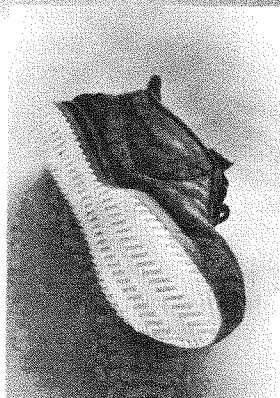
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Menlo Park	1970 Mountain Blvd.
Shreve's	Sports Inc
705 Oak Grove	362 Grand Ave.
Palo Alto	Berkeley
The Instep	The Athletic Dept.
4333 El Camino	2114 Addison
Rapp's Shoes	Jim Davis
375 University	2307 Telegraph
Short Swing	Euclid Tennis & Track
61 Town & Country	1814 Euclid
Village	TennisAmerica
Mountain View	2502 Telegraph
Swetka's Tennis Shop	Walnut Creek
1919 Latham	Walnut Creek Tennis
Los Altos	Heather Farms Park
The Green Squirrel	Colliers Sports Village
316 Main Street	1188 Broadway Plz.
Sunnyvale	Sacramento
Bob's Ski and Sport	Ski Stalker
777 E. El Camino	1735 Howe Ave.
Freeman's Sport Center	McIntosh's Sports Cottage
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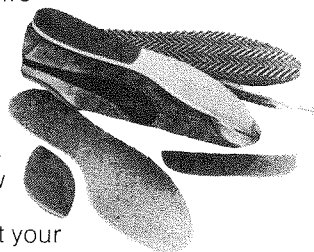
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Deadline for August was July 1st, September deadline is August 1st.

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

WAYNE RUSSELL Invitational Track Meet—July 27, 1974, Salem, Ohio. The meet will have competition in the following areas: Masters, Girls and Women, Boys, Open. Please write to Bing Newton, RD No. 1, Leetonia, Ohio for further information.

4TH ANNUAL Resurrection Pass Trail Marathon—August 4, 1974 at Hope, Alaska will be conducted this year by the University of Alaska at Anchorage. Race time 10 a.m. (Race of July 27, 1974 has been cancelled). Contact Dr. Lewis E. Haines, 4808 Knights Way, Anchorage, Alaska 99507. \$2.00 application fee.

MARIST COLLEGE Distance Running Camp. Two One-week sessions. August 10-16, 17-23. Best camp in country! Guests: MARTY LIQUORI, DAVE WOTTLE, BARRY BROWN, other top international distance running stars. Personalized instruction. Expert college/high school coaches. Four different Teaching Stations! Excellent food and dorm housing. Limited enrollment to ensure individualization. Registration closes July 15! **RUSH** for free brochure: Rich Stevens, Track Coach, Marist College Box No. 814, Poughkeepsie, New York 12601.

NATIONAL AAU MASTERS 15 kilometer Championship—Michigan City, Indiana. August 3. Run in the only race during the 1974 season where t-shirts will not be awarded as prizes. Age divisions in 10-year increments begin at 40. Separate race for runners 50 and up. Race-connected festivities include picnic, ping pong tournament, tour of Indiana dunes, theatre party. David H.R. Pain will appear to sign

autographs. Information from Hal Higdon, 2815 Lake Shore Drive, Michigan City, Indiana 46360. Telephone: (219) 879-0133.

OHIO, MICHIGAN RUNNERS—The Fulton/Williams County Road Runners will coordinate their third annual 10-kilometer race (August 3) with the Fayette Park's Chicken Barbeque, and will sponsor Ohio AAU's 20-kilometer championship (August 18). For forms and sample newsletter write: 409 South Fayette St., Fayette, Ohio 43521.

FORT STANWIX DAYS RUN—20 KM Adirondack Association Championship, Rome, NY, 9:30 AM, August 4. Free shirts; trophies—Open, Masters, Senior Masters, Women, Team. Beautiful historic course. Contact Bob Glover, Rome Family "Y", 301 W. Bloomfield St., Rome, NY 13440.

RUN PIKE'S PEAK Aug. 11—Train now for the championship of mountain running. This beautiful, challenging course now has organization for the growing field. Rudy Fahl, 2400 W. Colorado Ave., Colo. Springs, Colo. 80904.

BROOKS SHOES—The American shoe that competes with the Germans and Japanese, but at a much lower price (\$15.50-\$17.50 depending on model). Closeout on all Nikes & Tigers. For information enclose self-addressed stamped envelope to: Windy City Sports, 402 E. Virginia, Bensenville, Ill. 60106

E.R.G. DEALERSHIP serving L.A.'s south bay area. Immediate delivery. Team prices on request. Call Dave (213) 378-2511.

FREE SAMPLE—Features; medical advice; training tips; California/Oregon scheduling; extensive results; photos; covers all ages, men-women. \$5.00/year (12 issues). **NORCAL RUNNING REVIEW**, P.O. Box 1551, Dept. RW, San Mateo, CA. 94401.

ALBUQUERQUE MARATHON—Sunday, October 20, 1974 at 8:00 a.m. Scenic Course, Ideal Temperature, between 35-50 degrees. Awards: Open, places 1-25, Seniors (35-39) 1-3, Masters (40-49) 1-3, and Super Masters (50 and over) 1-3. First Woman finisher. T-shirts to all finishers. Entry fee \$2.50. Contact: NMTC, P.O. Box 4071, Albuquerque, NM 87106.

HIGH ENERGY FOOD—Pure bee gathered pollen. 4 tbs. entire protein meal. Almost instant assimilation. Free sample literature. \$5.50 lb. Also fresh Royal Jelly, \$14.00 oz. Breath of Life, Box 747, Los Altos, Ca. 94022.

RACING NUMBERS—Bib style or single. Consecutive sets from 1 to 50, 1 to 100, etc. up to 250. Plain numbers in stock or imprint your name or logo—2 weeks. Reusable. Inexpensive. Write for complete catalogue. Reliable Racing Supply, 253 Bay Road, Glens Falls, N.Y. 12801.

NIKE—Nylon Cortez \$18.90, Leather Cortez \$20.95. We pay postage. Free can of sole saver with each order. M & B Sports, 90 Manhattan, Los Alamos, NM 87544, (505) 662-4665.

HARRISBURG NATIONAL MARATHON—November 3, 1974 at 9:00 a.m. Be on the mailing list. Write: Jack Scarbrough, c/o Harrisburg YMCA, Front & North Streets, Harrisburg, Pennsylvania 17101.

6th ANNUAL EASTERN MASTERS AAU CHAMPIONSHIPS—July 20, 1974. White Plains (NY) H.S. New Tartan track. All age groups. Meet Director: Dick Lacey, 241 Ancon Ave., Pelham, NY 10803.

VIRGINIA 10-MILER—The Lynchburg Road Runners announce the Virginia 10-miler, Saturday, September 21, 1974, 10 a.m. Be on the mailing list. Contact Rudy Straub, 3020 Cranehill Dr., Lynchburg, Va. 24503 (703) 384-6816.

TIGER-NIKE—Tiger or Nike leather Cortez \$18.95. Tiger or Nike Boston \$15.95. Add \$1.00 pr. postage. Sizes 6-12. The Jog Shop, 1203 E. Warren, Brownfield, Tex. 79316.



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So don't wait (like Joe, here, did). Send for your own Sole Repair Kit, complete with a Sole Repair Gun, Sole Repair Pellets, and complete instructions.

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RUNNER'S GUIDE TO LAS VEGAS

It wasn't until the summer of 1973 that runners in Las Vegas accepted Frank Shorter.

Winning the Olympic marathon was okay, but it took a personal report from Don Murray, the Las Vegas Track Club president, to verify Shorter as a runner.

"Shorter is in town to accept an award and I saw him running this afternoon about 3 o'clock," Murray told a hushed assemblage of Las Vegas runners. That was followed by a lot of "oohs" and "aahs."

The guys were impressed with the fact that Shorter could run at all in the summer heat in Las Vegas. It was 115 degrees on the day Murray saw him.

"That Shorter," said Murray respectfully, "he can run."

Running in temperatures up to 120 in the summer is pretty easy stuff to Las Vegas guys, who are all suffering from a sort of mental heat stroke anyway. But for visitors it's murder. If they ran the Olympic marathon in Las Vegas in August, Las Vegas would take 1-2-3, a desert lizard would be fourth and a goat fifth.

Don't laugh. There was this goat who chased a guy almost two miles in the Southern Nevada AAU five-mile championship last year. The guy beat the goat in the sprint.

This particular goat hangs out around Sunset Park where all the races start. You can't miss him. He has very shifty eyes and a mean mouth. Also horns.

But maybe we should start at the beginning. Distance running in Las Vegas is only about 10 years old. The first recorded race was in 1964 when Eddie Warren, chief security officer at the Sahara Hotel, took off down the Strip after a slot machine cheat.

This guy had drilled a slot machine, pinned a couple of reels and was knocking off dime jackpots. He was pouring the dimes into his cowboy boots. He really had a pile in both boots when Warren spotted him.

The guy dashed out the front door of the Sahara with Warren right behind. But the farther the guy ran the heavier his feet got. Finally he couldn't move at all. Warren tossed on the cuffs in 3:14.3, which is still a record.

Eddie's run inspired a few guys and before long there were runners all over the place. The early races were started at Vocational Technical High School, which is located on a plateau just outside town. It's tough to give directions because they are subdividing the hell out of everything these days—but you wouldn't want to run out there anyway.

The best thing I can say about the scenery is that it looks kind of like the moon. No kidding, the astronauts trained just outside Las Vegas. At least they said it was training. Maybe it was punishment.

The best way to see the area around Vo Tech is to take Sunset street east until you come to a sign that says, "Next Services 192 miles." Now you get an idea of the kind of terrain we used to run in.

A lot of runners in Las Vegas still have a soft spot for the old Vo Tech five-mile course. We used to call it "Big Sandy," because a couple of miles of it go right through the desert. Aaron Goldman, one of our better runners and a math professor at the University of Nevada, once got lost on the course four straight weeks—which is another record.

I mean, the race would be over and everybody would be standing around in sweats asking, "Did you see Aaron?" Then way off in the distance we would see this head bobbing up and down. Aaron

always managed to get back to the starting line. But he kept getting lost on the same turn each week.

On the fourth week Aaron was doing great—about third or fourth—when he made the wrong turn again. This time he corrected his error after about half a mile and dashed up to the finish line just ahead of a big pack of guys. But he stopped short of the finish line and just stood there, looking at the ground.

"Get across the line," we screamed at Aaron.

Aaron thrust out his arm, palm facing the finish line. He turned his head to the left in the classic gesture.

"I don't deserve to finish," he said, stalking away.

After that, the big deal was to run at the university, which is located on Maryland Parkway between Flamingo and Tropicana. The best reason was that it was flat and there were always a lot of great looking girls around. It's still flat, there are more great looking girls than ever and they have a brand new Tartan track open to the public. And the caretaker at the track is a marathoner.

One of the great unreported races in history was staged at UNLV a few years ago. I sent the results to *Runner's World* but the editor rejected them.

I admit it's a little hard to under-

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THE LYNCHBURG ROAD RUNNERS ANNOUNCE THE VIRGINIA 10-MILER

Sponsored by First Colony Life Insurance

AAU certified and sanctioned
To be held in Lynchburg, Va., Saturday, Sept. 21, 1974, 10 a.m.

Awards trophies for 1st overall, 1st, 2nd, & 3rd in each division, medals for 4-15th places, t-shirts for first 100 finishers, also special awards: oldest, youngest, etc.

Divisions — Open, 23-29, 30-39, 40-49, 50-59, 60 & above, women's open.

For further information contact:
**R.V. Straub, 3020 Cranehill Drive,
Lynchburg, VA. 24503
(703) 384-6816**

stand a four-mile cross-country race where some guys run 15 minutes and other guys run 45 minutes. Kind of makes you wonder.

What happened was there was this car in the last half of the race that was supposed to be a kind of pace vehicle. It was a complicated course and the race director wanted everybody to understand it.

Anyway, a runner named Nick Kitt was leading when the pace car came into sight. So Nick followed the car down a couple of streets until it finally turned into a garage and parked. A woman with groceries got out and gave Nick a suspicious look. I think things sort of disintegrated at that point.

People kind of went crazy. Runners were going in all directions, following every car in sight. Guys who didn't know the neighborhood went off in the wrong direction. Other guys just leaped fences and took short cuts back to the finish line. Guys would dash around a corner and bump into runners going in the opposite direction. I never saw so many runners laughing at one time.

They still have the race but it's not much fun anymore. Everybody knows the course now.

The thing that really made a great impact on Las Vegas distance running and racing was the day a couple of years ago when Murray and our new race director, Dalby Shirley, discovered a tree. It was a big tree and it was growing in Sunset Park. Murray and Shirley got this great idea to start and finish the races in the

shade. To this day these guys are heroes.

To get to the tree you go south on the Strip to Sunset, turn east and keep going until you reach Eastern Avenue. Sunset Park is on the corner. They play baseball, tennis and some other minor sports in the park, but every Saturday morning between September and March the runners take over the tree.

I mean, in the kind of sun we get in Las Vegas a tree is better than almost anything. The Las Vegas Track Club begins all its races at Sunset Park—everything from five miles to 30 kilometers. The courses are pretty easy to follow if you can make right turns.

It was risky for a while. There was this huge Shepherd about two miles from the start and as far as I could see he hated everyone—especially moving people. One day he dashed into a whole group of runners and bit Randy Lauffer on the leg. As I remember it was a nice clean wound. Anyway, Randy was so scared he zoomed out ahead of everyone and won the race.

But it was too much for Bill Freedman, one of our veteran runners who sometimes works as an attorney. "We'll sue!" shouted Freeman, leading a band of about 20 runners back to the scene of the crime.

When we climbed out of our cars the dog charged again—then stopped short. Did you ever try to charge into 20 guys armed with clubs and rocks. The dog gave a couple of yelps, dived under a house and never appeared again. If he does, Freedman will sue him.

Other than the heat and a few surly dogs, Las Vegas is a nice place to run. You could do a 20-miler and never hear "Faster, faster" more than a couple of times. Maybe you would get a "Hut, two, three, four" in there, too. But generally the natives are friendly.

In June, July and August, when the temperatures range from 100 to 118, you hardly see anyone walking—much less running. When the townspeople see a runner in the summer they usually avoid him like he has some incurable South Pacific disease and might spread it to them.

Compared to the middle of the summer, running in the 90s in May and September is like a cool breeze. Temperatures keep dropping until they go into the 30s in January, and when the wind comes up in the winter it's thermal underwear and sweatsuit time—because this is *wind* wind. I mean, blowing 35-40 miles an hour is frequent.

Last January we had to postpone a race because of a snowstorm. No kidding, there was almost a foot of snow on the ground and the whole city was trying

to pull itself out of the ditch. Who has tire chains in Las Vegas?

Maybe the best thing about the city is how well it's laid out. From the air it looks like a giant vacuum cleaner. Most of the big resorts are located on the Strip and it's nice to run by them early in the morning. Sometimes the faint cry of a craps dealer floats on the wind. The gentle "tic, tic, tic" of a Big Six Wheel blends with the muted ripple of playing cards and the musical tinkle of Coors beer trucks. Lots of great mood stuff like that.

The longest hill in town starts at the corner of Sahara Avenue and Eastern. It's exactly a mile long but when you run it in the summer that's it for the day. In the cooler months a lot of guys run the six-mile loop that starts at the bottom of the hill, goes two miles west on Sahara, turns south on Paradise Road for a mile, plunges east on Desert Inn Road for two miles and north on Eastern to the starting point.

On this route you pass a little of everything Las Vegas has to offer—casinos, golf courses, hospitals, the convention center, new buildings, old buildings, an acupuncture clinic and a fire station.

The guys in the fire station will let you use their bathroom. There's one little problem, though. They have this slot machine on the door and it takes three cheeries to get in. And three plums to get out.

(For more information on running in Las Vegas, contact Bill Freedman, Box 869, Las Vegas, Nev. 89101.)

ANDREW JACKSON MARATHON

(COURSE AAU CERTIFIED)

Jackson, Tennessee—September 28

- Trophies to first 3, medals to second in each division: 17 & under, open, 30-39, 40-49, 50 & older, women.

- Out-and-back course over rolling terrain. Free lunch to all participants. A half-marathon will also be run.

Contact:

Burt Parker,
General Director, YMCA,
P.O. Box 3264,
Jackson, Tenn. 38301

Rochester Marathon

Monday, Sept. 2 (Labor Day), 10 a.m.
(Rochester, New York)

- Certified course.
 - Entry fee \$2.00, due with entry—Checks payable to Rochester Road Runners. Post entries \$3.00.
 - Report to Central YMCA, 100 Gibbs St. (one block east of Main St., Downtown Rochester) by 8:30 a.m.
 - Awards: Open, 1-3 trophies; 30-39, 1-3 trophies; 40-49, 1-3 trophies; 50 & over, 1-3 trophies; women, 1-3 trophies; 18 & under, 1-3 trophies. Merchandise, certificates to all finishers; Marathon Photo Booklet to all entrants.
- Send entries to: L.A. Bagley, 88 Nettlecreek Rd., Fairport, N.Y. 14450 (716) 223-2940.

FOURTH ANNUAL

NOVA SCOTIA MARATHON

SHELBURNE, NOVA SCOTIA, CANADA

August 31, 1974, 9:00 AM

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DIVISIONS
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SPONSORS Nova Scotia Department of Recreation and Nova Scotia Track & Field Association Marathon championship.

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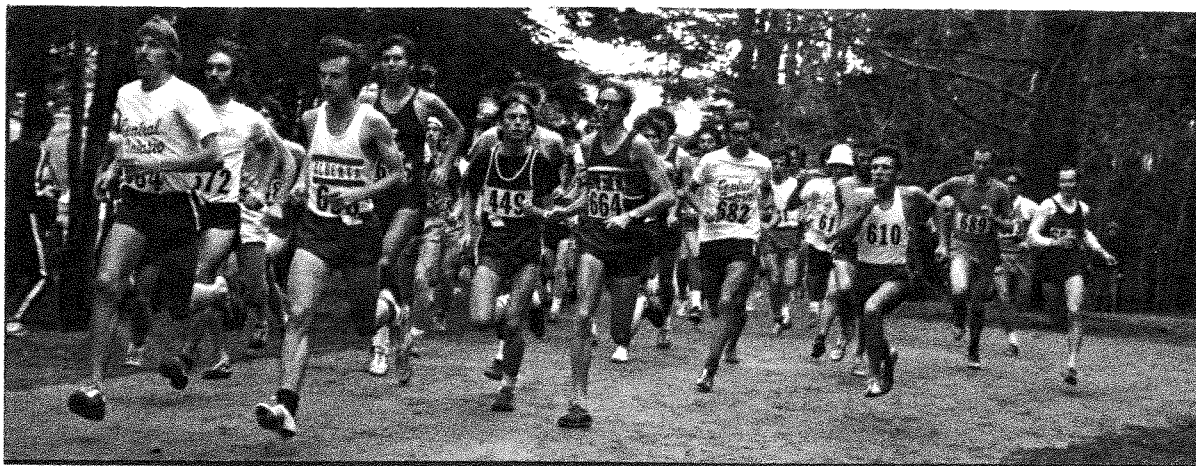
For entry forms and accomodation information please write:

N.S. MARATHON
P.O. BOX 358
SHELBURNE, NOVA SCOTIA
CANADA

TELEPHONE

902-875-2964 (Bob Waugh)

902-875-3191 (Ron Jefferson)

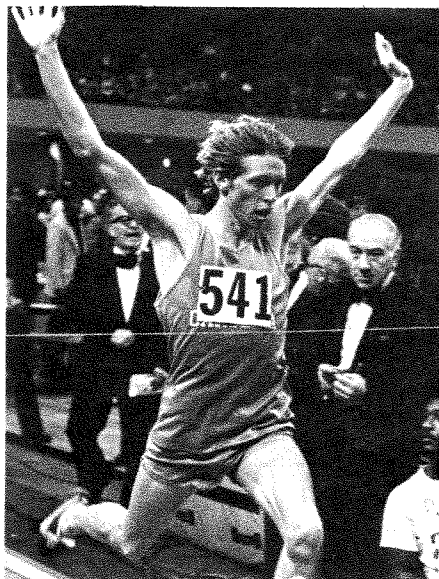


Come to Atlantic Canada and run a rural marathon course where the fresh air is guaranteed. A marathoners banquet will follow the run.

Looking At People

● **Roger Bannister**, writing on the 20th anniversary of his 3:59.4 mile, said, "The task of running the first sub-four-minute mile was mainly, of course, the overcoming of a psychological problem, the fear of an apparent barrier which had left runners teetering on the brink for eight years without improvement in the world record. Now it is merely a physical—or, at any rate, a physiological—problem of how the lungs and heart of runners can be sufficiently trained to transport more efficiently the oxygen needed by the hungry muscles."

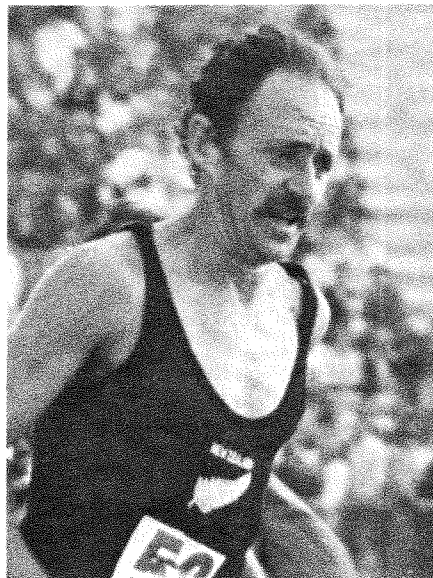
The mile record was 23 years going from 4:10 down to 4:00. **Filbert Bayi** ran the equivalent of a sub-3:50 early this year. Bannister thinks "that if present progress continues, the record could be nearer 3:30 by the end of the century."



Tony Waldrop

● **Tony Waldrop**, the hottest miler around, refuses to put himself in the race for 3:50. "I think someone will do it this year," he said in May, "but I don't think I can do it. But then I didn't think I could run a mile under four minutes, either. I've been running the mile only a year. I still have trouble believing what I've done."

● **Buddy Edelen** is running again. The former world record holder in the marathon (2:14:28 in 1963) has experienced little but trouble since then. Sciatica ended his effectiveness as a world class competitor. Then several years ago he was involved in a near-fatal auto accident. Now 37 and a graduate student at the University of Montana, Edelen recently finished sixth in the largest race of that



Jack Foster

state's history. He ran 41:03 for the Misoula 7.2-miler, a race which attracted a field of 400.

● **Les Pawson, Pat Dengis, Dr. Charles Robbins, Mel Porter and Fred Wilt** are the latest inductees into the Road Runners Club of America Hall of Fame. Pawson won the Boston marathon twice. Dengis finished second twice. The others were honored for their service to the sport.

● **Gar Williams** of Vienna, Va., was re-elected as president of the RRCA at the group's annual meeting in Boston. The membership voted to allow RRCs to compete as clubs if they sponsor 12 or more races per year. Previously, they were only race-sponsoring and running-promoting organizations, and the members ran for other clubs.

● **Jim Bentley** (see "America's Young Race Walkers," June *RW*) will be walking his way through college—the first athlete from his sport to do so on a full athletic scholarship. Bentley, of Reno, Nev., will compete this fall for Eastern New Mexico University. He won five AAU junior championships in 1973, and the first two this year.

● **Dr. M. H. Ellstad** of Long Beach, Calif., has some startling figures from his work with treadmill EKG testing. Over the past eight years, Dr. Ellstad has "stress-tested" more than 2700 men and women, most in the 35-65 age range. During this time, 32% of the males who failed had heart attacks, compared to about 4% of those who passed. Ellstad reported that individuals with heart attack histories and

stress-test failures had an 80% chance of having another heart attack—probably more serious than the last—within five years.

● **Jack Foster**, the 42-year-old New Zealand sensation, and Boston winner **Neil Cusack** were scheduled to run the first Marathon of the Times at Los Angeles in late June. The feature that distinguished this race from the dozens of others in the country was its \$100 entry fee. That isn't a misprint. The fee was \$100. The proceeds were to go to the *Los Angeles Times* Fund, which supports youth projects in southern California.

● **Brodie Snyder**, a columnist for the *Montreal Gazette*, has little love for the Boston marathon. He watched the latest race and wrote the next day that it was run "by 1705 masochists for the benefit of a quarter-of-a-million sadists."

He continued, "Not since Noah's Ark had there been so much animal matter awash. Quaint characters in a curious event, the pack came clawing and clattering along Hayden Row Street (near the start), wedged in like hysterical sheep. They had one thing in common. They would suffer. (There was) more agony than a dozen soap operas could have in a month: the agony of watching people who shouldn't have been in the race at all as they came to the end of it..."

● **Sen. James Pearson** of Kansas is sponsoring the revised Amateur Athletic Bill which was scheduled for a vote by the Senate in June. The 1973 version never got to the voting stage. Now, provisions to establish a commission to study the US Olympic movement and to limit the life of the proposed federal sports board have been dropped.

The new bill calls for the establishment of a five-member Amateur Sports Board which would determine the organization to be in charge of each sport. No group could oversee more than three sports. The effect of this would be to greatly cut back the AAU's power. The AAU would be forced to choose which three sports it wants, and relinquish control over the others.

The bill also has provisions for creating a national sports development foundation which would award grants to promote participation, research, development of facilities and coaching. Private donations would be matched by federal funds.

● **Tony Rafferty**, an Australian who completed what was called "history's longest run" (more than 3500 miles across Australia) several months ago, has another mark—the longest non-stop run. In May, Rafferty went 140 miles in 30 hours 15 minutes.

AUGUST COMING EVENTS

Please send your race information to **Runner's World**, Box 366, Mountain View, Calif. 94040. For races to appear here, we must know of them at least two months before the scheduled date.

NORTHEAST

- 3 Littleton 10-mile, Littleton, N.H. (5 p.m.; open; Edwin Estle, North Country AC, Box 482, Littleton, N.H. 03561).
- 4 Adirondack AAU 20-kilometer, Rome, N.Y. (Bob Glover, Rome YMCA, 301 W. Bloomfield, Rome, N.Y. 13440).
- 18 Hispanic 13.1-mile, New York, N.Y. (Central Park; open; Kurt Steiner, 1660 E. 21st St., Brooklyn, N.Y. 11210).
- 19 15-kilometer DC RRC Champ., Washington, D.C. (7:15; open; Mrs. W.W. Leonard, P.O. Box 695, Arlington, Va. 22216).
- 31 Pittsburgh marathon, Pittsburgh, Pa. (open; C.A. Herman, Chairman, 5001 Lougean Ave., Pittsburgh, Penn. 15207).

SOUTHEAST

- 17 Greens-Winston marathon, Greensboro-Winston Salem, N.C. (6 a.m.; open; Scott Brent, 2725 Brightwood Ct., Winston-Salem, N.C. 27107).
- 31 Charleston 15-mile, Charleston, W. Va. (open; Don Cohen, P.O. Box 1525, Charleston, W. Va. 25325).

MIDWEST

- 3 National AAU Masters' 15-kilometer, Michigan City, Ind. (7:30 a.m.; open; Hal Higdon, 2815 Lake Shore Dr., Michigan, Ind. 46360).
- 4 Omaha Jaycee's marathon, Omaha, Neb. (Omaha Civic Auditorium, 7 a.m.; open; Bob Lozeau, c/o Omaha Jaycee's marathon, 1620 Dodge, Omaha, Neb. 68102).
- 4 USTFF Men's National 10-mile, Cudahy, Wisc. (Cudahy H.S.; Walt Koehlert, N. 115 W 16517 Knight Dr., Germantown, Wisc. 53022).
- 10 Paavo Nurmi marathon, Upson-Hurley, Wisc. (8 a.m.; open; Hurley Chamber of Commerce, 203 Silver St., Hurley, Wisc. 54534).
- 10 Indiana AAU 20-kilometer, South Bend Ind. (Steve Kearney, 1202-9 Jefferson, Chesterton, Ind. 46304).

SOUTHWEST

- 10 6-mile, Texarkana, Tex. (open; Carol Hafner, 3806 Daffodil, Texarkana, Tex. 75501).

ROCKIES

- 3 National AAU 15-kilometer, Littleton, Colo. (9 a.m.; open; Morris Vogel, 6500 S. Grant St., Littleton, Colo. 80121).
- 11 Pikes Peak marathon, Manitou Springs, Colo. (7:30 a.m.; open; Rudy Fahl, 2400 West Colorado Ave., Colorado Springs, Colo. 80904).

WEST

- 2-4 AAU Boy's Age Group National Track, Pasadena, Calif. (Pasadena City Coll.; open; Blue Angels T & F Club, Boy's section, P.O. Box 244, Stanton, Calif. 90680).
- 3 Ocean-Bay marathon, Martins Beach-Belmont, Calif. (8:30 a.m.; open; Belmont Recreation Dept., 1225 Ralston Ave., Belmont, Calif. 94002).
- 11 Hawaii AAU One-hour, Honolulu, Hawaii (U. of Hawaii, Cooke Field, 8 a.m.; open; Don Barrell, 1459 Olino St., Honolulu, Hawaii 96818).
- 17 Seaside 7.25-mile beach run, Seaside, Ore. (11:30 a.m.; open; Ralph Davis, 3145 N.E. 47th, Portland, Ore.).
- 25 Dipsea 6.8-mile, Mill Valley—Stinson Beach, Calif. (bus depot, 10 a.m.; open; Race Chairman, Mill Valley Jaycees, Box 30, Mill Valley, Calif. 94941).

CANADA

- 11 15-mile, Etobicoke, Ontario (Centennial park, 11 a.m.; open; Peter Lever, 617 Rathburn Rd., No. 60, Etobicoke, Ontario).

WALKING

- 4 National AAU "B" 40-kilometer walk, Long Branch, N.J. (Elliott Denman, 28 N. Locust Ave., West Long Branch, N.J. 07764).
- 4 National AAU 40-kilometer walk, Long Branch, N.J. (Elliott Denman, 28 N. Locust Ave., West Long Branch, N.J. 07764).
- 11 National AAU Jr. 20-kilometer walk, West Long Branch, N.J. (Elliott Denman, 28 N. Locust St., West Long Branch, N.J. 07764).

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by George Sheehan M.D.

MEDICAL ADVICE

BLOOD PRESSURE

Q: I recently had my blood pressure checked at a mobile unit. The person who took it said my pressure was 150/94, and for my age (30) that was quite high. I returned the next day and a different person found my pressure to be 138/84, which she said was normal. I average 70-80 miles a week and recently ran 2:48 in the Boston marathon. My question: Are either of these readings exceptionally high? If so, how can this affect my running and how can I lower my blood pressure? (E. O., New Jersey)

A: Blood pressure determinations are a chancy thing. When I had my Navy physical, they asked me to run around the block to raise it. A year later, when I had to get a commission, I just got in under the wire.

If anything, running will lower the blood pressure. Several studies have been done to show the beneficial effect of exercise in this area. In any case, the figures you report are in or near the normal range.

I have found the quickest way to find your true normal blood pressure is to hyperventilate. Relaxed over breathing gives you a light-headed, I-don't-care-feeling and eliminates any effect of tension. I have seen blood pressures drop 30 points by this method.

CHRONIC DAMAGE

Q: It has recently come to my attention that some medical authorities have become quite concerned over the likelihood of chronic, progressive damage occurring to the knees, ankles and hips in the form of cartilage deterioration over a period of many years of long distance running. The result would be severe impairment of later life in terms of walking and running. I would appreciate it if you would comment on this issue. (M. S., California)

A: Progressive damage to joints and deterioration from running is one of those theories that "stands to reason that it should be this way." Actually, few things stand to reason and hardly anything in relation to the human body.

The garden variety human body is

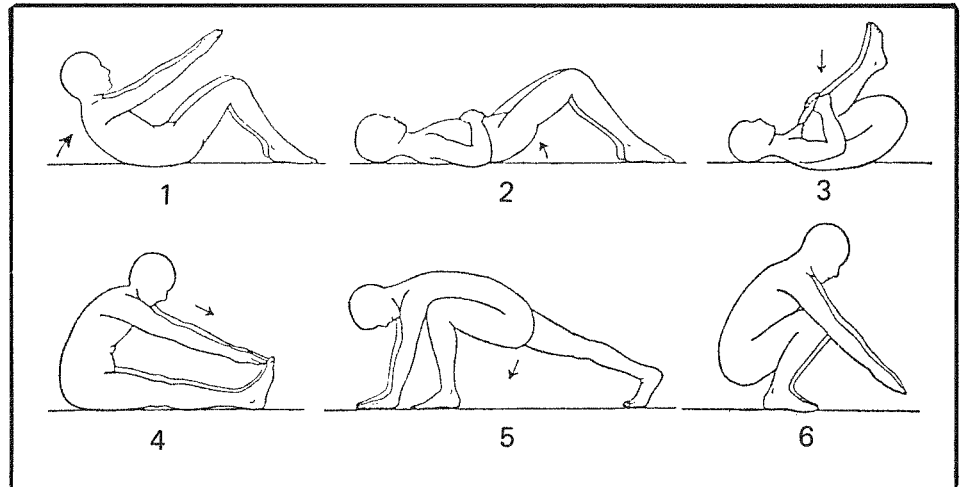
capable of long-term, trouble-free use if properly cared for. We are born with a 70-year warranty, and it will stand up if we don't abuse it.

Dr. Ernst van Aaken, who is a strong figure in veterans' running in Europe, would laugh at such contentions of damage from use, as would the Tarahumara Indians of Mexico, who go through life on their legs and feet.

Nietzsche once wrote that any thought arrived at while sitting down should be suspect. This seems to be one of them. The problems runners get into are due to structural or postural instability. Correction of these problems will give any runner the mileage potential of a Rolls Royce.

HIP

Q: After a layoff of some two years, I began running last summer. Over a period of four months, my mileage increased to 65 a week. At this time I was running at least 10-20 440s once a week. Then came trouble... my hip. The pain got so bad I stopped running. The pain seems to be in the upper part of the hip. What causes this? How do I cure it? (J. K., Oregon)



A: Hip trouble after speed work and fartlek is almost always due to sciatic nerve pressure. Fortunately, this is a problem that the runner can usually handle himself.

You should start on the Williams Exercises (see accompanying drawings). They will strengthen your abdominal muscles and stretch your hamstrings and iliopsoas muscles.

It is also possible that this is a muscle pull. If so, you should stand on your good leg and bring your other foot up to your buttock. Now tighten in as hard as you can. Relax. Tighten and hold for 15 seconds. Relax. Repeat.

MORTON'S FOOT

I would like to thank Drs. Sheehan and Subotnick for their suggestions on Morton's Foot ("Disaster at Little Big Toe," Feb. 74 RW and "Toe Trouble", April 74). I have had knee problems for 1½ years, starting soon after I increased my mileage. Nothing seemed to help.

When I first saw Dr. Sheehan's article, I had hopes. But he posed no solution, so I took the problem to a foot doctor in my hometown. He was interested, and even read the article, but the appliance he suggested and made didn't work.

As the April issue arrived, however, I fashioned a support out of felt and obtained almost immediate relief. So here I am, \$40 poorer but a lot happier. (C. H., Illinois)

A: It is incredible to me that something so fundamental as Morton's Foot cannot be handled by the ordinary podiatrist.

I suggest that the permanent support incorporate exactly what you have done for your first metatarsal. I think a heel seat and a longitudinal arch would make it more effective, durable and capable of transfer to your regular shoes.

ARCHES

Q: I developed a sore right arch, so I bought a new pair of running shoes and added an arch support. My arch got better, but it is still sore. Should I continue to run on it or should I give it a rest? (M.C., Oregon)

A: Arch supports are like eye glasses. Some people can walk into Woolworth's and buy a pair of glasses for less than \$5 and be well fitted. Others have to get individualized lenses at considerable expense. The same situation occurs with arch supports.

If your arches don't work well, consult a sports-wise podiatrist.

RACING HIGHLIGHTS

TRACK ROUNDUP

Dave Prokop covers Ivory Crockett's 100-yard dash record in detail earlier in this issue. Another highlight from that same meet which went almost unnoticed outside of Knoxville was Doug Brown's American record steeplechase.

Twice in recent weeks, Francie Larrieu has been under the American women's mile record—with 4:37.9 and 4:38.2.

The records:

● **60 yards**—5.8 by Harrington James (US), Atlanta, Ga., May 10, unofficially tying world and American indoor records; pro race.

● **60 yards (women)**—6.5 by Wyomia Tyus Simburg (US), Atlanta, Ga., May 10, tying world and American indoor records; pro race.

● **100 yards**—9.0 by Ivory Crockett (US), Knoxville, Tenn., May 11, breaking world and American outdoor records of 9.1.

● **Steeplechase**—8:23.2 by Doug Brown Knoxville, Tenn., May 11, breaking American outdoor record of 8:26.4.

● **Mile (women)**—4:37.9 by Francie Larrieu, Austin, Tex., April 12, breaking American outdoor record of 4:38.7.

RACE WALKING

German Bernd Kannenberg has been incredible, setting world records at 20 and 30 kilometers, and two hours. In his 20 race, he average 6:43 per mile.

● **20-kilometers**—1:24:45.0 by Bernd Kannenberg (W.G.) Hamburg, W.G., May 25, breaking world record of 1:25:19.4.

● **2 hours**—16 miles 1268 yards by Peter Frenkel (East Germany), East Gerlin, April 14, breaking World record of 16m 993 y.

● **2 hours**—16 miles 1517 yards by Bernd Kannenberg (West Germany), Kassel, West Germany, May 11, breaking world record of 16m 1268y.

● **30 kilometers**—2:12:58.0 by Bernd Kannenberg (West Germany), Kassel, West Germany, May 11, breaking wr of 2:14:45.6.

NORTHEAST

● **Scarsdale, N.Y., Apr. 7**—Met. AAU 15-kilometer: 1. Mike Keogh (22, Manhattan Col. AA) 47:24; 2. Paul Heck (18, Columbia U AA) 47:54; 3. Frank Handelman (28, Central Park TC) 49:18; 4. Ken Rolston (22, East Coast AC) 49:41; 5. Ray Fitzgibbon (19, Columbia U AA) 50:04; 6. Larry Fred-

ricks (25, NYAC) 50:29; 7. Larry Hansen (18, Columbia U AA) 50:52; 8. Tom Robinson (30, NYAC) 51:01; 9. Kevin McDonald (23, No. Jersey S.) 51:19; 10. Hugh Sweeny (27, No. Jersey S.) 51:20... 51. Joe Viverito (40, Long Island AC) 56:15... 78. Anita Scandurra (18) 59:04. (278 finished, 40 under 55:00, 84 under 1:00; from Joe Kleinerman).

● **Albany, N.Y., Apr. 28**—15-mile Trophy Race: 1. Ken Kirik 1:29:09; 2. Norm Marincic 1:31:23. (20 finished, 9 under 1:05, 19 under 1:40).

● **Jim Thorpe, Pa., Apr. 29**—Jim Thorpe Memorial 6-mile: 1. Jon Sevcik (22) 29:02; 2. Bruce Hyde (20, Bucknell) 29:34; 3. Larry Hager (19, Bucknell) 29:46; 4. Mike McCoy (19, Bucknell) 30:14; 5. Rick Katz (25, Nittany Valley TC) 30:18... 8. Antoine Adger (18, Olney H.S.) 30:59... 36. Guy Candy (51, Allentown YMCA) 36:15 ... 77. Suzanne Harris (32) 43:14. (158 finished, 2 under 30:00, 21 under 35:00; from Frank Gaval).

● **Westfield, Mass., May 5**—Berkshire Masters 10-mile: (40-44) 1. Walt Renaud (43) 55:24; 2. Chet Fortier (41) 55:32; 3. Henry Kupczyk (41) 55:40; 4. C. Gaff (40) 55:46. (45-49) 1. Tony Sapienza (45) 56:24; 2. C. Hansen (45) 57:35; 3. B. King (45) 58:32. (50-54) 1. C. Hammen (51) 1:01:10; 2. B. Tribou (54) 1:01:29; 3. J. Taylor (51) 1:03:34. (55-59) 1. D. Greer (55) 1:08:35; 2. H. Jaffe (55) 1:09:10; 3. A. Bressani (56) 1:10:43. (60-64) 1. Norman Bright (64) 1:01:51; 2. D. Logan (60) 1:11:17; 3. F. Goodnow (61) 1:11:21. (65-69) 1. J. Kelley (67) 1:06:42; 2. J. Carroll (65) 1:11:54; 3. Otto Essig (68) 1:12:22. (70 and over) 1. F. Sargent (71) 1:27:02; 2. C. Willberg (77) 1:29:16; 3. M. Cavanaugh (77) 1:29:22. (157 finished).

● **New York, N.Y., May 5**—Metropolitan 20-kilometer: 1. Art Hall (26, Oakwood TC) 1:04:46.8 (new course record); 2. Bill Bragg (24, Baldwin LI) 1:05:08; 3. Frank Handelman (29, Central Park TC) 1:06:50; 4. Francisco Wulliemier (21, Tuckahoe) 1:06:57; 5. Art McAndrews (30, Boston AA) 1:07:08... 9. Pat Bastick (40, Millrose AA) 1:10:11... 58. Nina Kuscsik (34, Suffolk AC) 1:20:34... 58. Bill Coyne (52, Millrose AA) 1:20:40... 110. William Brobston Sr. (60, Central Park TC) 1:34:20. Team: 1. Millrose AA (48 pts.); 2. Central Park TC (128 pts.) (from Joe Kleinerman).

● **Warren, Conn., May 11**—62-mile: 1. Park Barner 7:37:42; 2. Clayton Bristol 7:47:10; Ted Corbitt 7:52:37. 1. Park Barner (30) 5:55:30; 2. Clayton Bristol (24) 6:06:23; 3. Ted Corbitt (54) 6:11:27; 4. Dean Perry (24) 6:29:35; 5. Lloyd Rysslyainer (25) 6:34:38; 6. Phil Heath (30) 6:57:21; 7. Nat Cirulnick (43) 7:56:25.

● **New York, N.Y., May 11**—RRC Women's 6-mile: 1. Doreen Ennis (17, Nutley TC) 36:45; 2. Cathy Greene (15, LI Golden Spikes TC) 36:48; 3. Nina Kuscsik (35, Suffolk AC) 37:20; 4. Anita Scandurra (18, LI Golden Spikes TC) 37:52; 5. Marilyn Bevans (24) 38:03... 61. Joanne Fleischmann (46, Bills Running Broads) 47:10. (152 finished, 14 under 40:00, 46 under 45:00; from Joe Kleinerman). Teams: 1. LI Golden Spikes TC (21 pts.); 2. Nutley TC (27 pts.).

● **Holyoke, Mass., May 12**—Holyoke marathon: 1. Peter Kuchinski (North Medford Club) 2:33:04; 2. James Gusek 2:35:10;

3. Ronald Drogin (North Medford Club) 2:41:28; 4. Louis Aguiar (North Medford Club) 2:41:48; 5. James Bowes (West Valley TC) 2:42:36... 8. James McDonagh (50, Millrose AA) 2:46:37. (46 finished, 13 under 3:00, 31 under 3:30, 41 under 4:00; from Dick Childs).

● **New York, N.Y., May 18**—National AAU Women's 10-kilometer: 1. Marlene Harewicz (15, Mt. Lebanon TC) 35:31; 2. Jacki Hansen (25) 38:03; 3. Cathy Greene (15, LI Golden Spikes) 39:18; 4. Nina Kuscsik (35, Suffolk AC) 39:50; 5. Robin Voelker (27, Liberty AC) 40:30; 6. Mary Mapelli (20, Lehman Coll.) 40:58; 7. Nancy Linday (24, McBurney AC) 41:09; 8. Dianne Andrade (18, Suffolk AC) 41:29; 9. Katherine Good (16, Sports Int'l TC) 41:45; 10. Kathy Switzer (27, Central Park TC) 42:08; 11. Suzanne Williams (35) 42:30... 37. Sarah Luczynski (41) 54:32. Teams: 1. Suffolk TC (24 pts.); 2. McBurney YMCA (47 pts.); 3. Central Park TC (49 pts.). (43 finished, 15 under 45:00; from Joe Kleinerman).

● **Syracuse, N.Y., May 19**—First Trust marathon: 1. John Arthur (Springfield Coll.) 2:30:34; 2. Terry Habecker; 3. David MacLeod 2:36:43; 4. Peter Jeffers 2:38:22; 5. Richard Carlson 2:38:38; 6. J. Thomas Greer 2:40:49; 7. William McMullen 2:44:25; 8. Seth Bergmann 2:44:44; 9. David Howes 2:47:55... Bozenga Syska (Syracuse U) 3:30:03. (from H. Schramm).

● **Bronx, N.Y., May 19**—Bronx Bicentennial 5-mile: 1. Gary Muhrcke (32) 25:42; 2. Ernie Rivas (24) 25:58; 3. Jack Harayda (21) 26:08; 4. Paul Fisher (20) 26:26... 11. Joe Burns (45) 27:49... 16. Jim McDonagh (50) 28:34. (64 finished, 24 under 30:00; from Joe Kleinerman).

SOUTHEAST

● **Arkadelphia, Ark., May 24**—NAIA Championships marathon: 1. Lucian Rosa (Wis/Park-Ceylon) 2:22:54; 2. Joe Catalano (Bost St) 2:28:45; 3. Curtis Ankeny (G. Fox) 2:28:55; 4. Wayne Akiyama (Claremont-Mudd) 2:30:49; 5. Rodger Vann (J Brown) 2:31:38; 6. Don Gregory (Fres Pac) 2:32:05.

● **Raleigh, N.C., Apr. 7**—Southeastern AAU Masters' marathon: 1. Charles Gibbon (51, Chattanooga TC) 2:46:14.

● **Louisville, Ky., Apr. 29**—Kentucky Derby 13-mile: 1. John Lloyd (21) 1:09:30; 2. Bill Olrich (38) 1:13:07; 3. Bruce Dawkins (18) 1:13:12; 4. Larry Veech (17) 1:13:13; 5. M. Whitting (17) 1:14:06... 36. A. Lannins (44) 1:27:48... 107. Jane Sandosky (21) 1:44:29... 113. Sally Sliga (17) 1:45:56. (152 finished, 21 under 1:20, 50 under 1:30; from Fred Lawrence).

● **Fraziers Bottom, W. Va., May 5**—10-mile: 1. Roger Rouiller (35) 55:55; 2. Paul Cantrell (21) 56:20... 7. Art Thompson (54) 1:19:06... 12. Nathinel Hefner (63) 1:17:43. (14 finished).

● **Huntsville, Ala., May 22**—Rocket Run 8.2-mile: 1. Sam Benedict (27, ATC) 44:30; 2. Charles Gover (22) 45:39... 13. Bill Noace (44, ATC) 52:34. (26 finished).

MIDWEST

● **Des Moines, Ia., Apr. 27**—Drake Relays marathon: 1. John Lesch (UCTC) 2:26:03;

2. Michael Seaman (St. Cloud Striders) 2:32:05; 3. Juan Garza 2:36:45; 4. Stephen Norris 2:39:22; 5. Larry Seethaler (Great Falls AFB, ND) 2:39:22... 36. Karl Larson (50+) 3:03:43. (98 finished, 27 under 3:00, 66 under 3:30, 86 under 4:00).

● **Cincinnati, Ohio, May 5**—Tri-County 10-mile: 1. Jim Stanley (Ball State U) 49:53. (66 finished).

● **Carson Park, Minn., May 7**—10-mile: 1. Steve Hoag (Twin Cities TC) 49:47; 2. Tom Hoffman (UCTC) 50:15; 3. Ron Daws (Twin Cities TC) 51:59; 4. Jim Barka (U. of Minn) 52:23... 11. Alex Ratelle (49, Twin Cities TC) 57:49... 21. Bill Andberg (62, Twin Cities TC) 1:04:26... 26. Jan Arenz (1:07:35. (35 finished, 16 under 1:00; from Dave Angell).

● **Chicago, Ill., May 12**—III. RR 50-kilometer: 1. Ben Buckner (35, Ohio RR) 3:34:41; 2. Bob Bruce (53, Ill. RR) 3:49:04. Two-hour run: 1. Peter Elliott 20m 1350y; 2. Martin Smith 20m... 6. Richard Collins (41) (9 finished). (from Ken Young).

● **Monticello, Ill., May 18**—III. TC 15-kilometer: 1. Dike Stirrett (26, E. Ill St.) 48:36; 2. Phil Davis (28, Ill. TC) 52:11; 3. Joe O'Shea (30, Ill. TC) 52:32; 4. Steve Duck (16) 53:30; 5. Steve Goldberg (41, Ill. TC) 53:45. (25 finished, 12 under 1:00).

● **Dayton, Ohio, May 19**—Great Lakes Region YMCA 10-mile: 1. Daniel Sekerak (27) 57:12; 2. David Lenahan (20, G.N. YMCA) 57:19; 3. Jim Ackley (22) 58:01; 4. Chris Chroniak (19) 58:10; 5. David Reid (26, YMCA) 58:59; 6. John Merola (42) 59:59. (45 finished, 6 under 1:00). Five-mile: 1. Jeff Neep (19) 29:30; 2. Ron Rapp (14) 30:01... 6. E.C. Dibble 32:23... 20. Marjorie Reed (32) 39:33. (42 finished).

● **Stoughton, Wisc., May 18**—20-mile: 1. Alan Claremont (38) 1:51:57; 2. Allan Gilman (27) 1:52:16; 3. Royce Harnish (26) 1:53:35; 4. Don Fass (19) 1:55:24; 5. Shawn Flanagan (19) 1:55:29... 27. Richard Durbin (44) 2:10:01... 52. Merle Knox (52) 2:18:41... 90. Diane Holum (22) 2:36:43. (134 finished, 11 under 2:00, 54 under 2:20; from Lee Wilcox).

● **Holt, Mich., May 25**—Memorial Day 10-mile: 1. Duane Spitz 51:39; 2. Jim Carter (MSU) 54:15... 16. Paul Hansen (53) 1:01:35... 26. Hank Braddock (60) 1:07:36. (32 finished, 12 under 1:00). Five-mile: 1. Stan Mavis 25:21; 2. Don Kleinow 25:36... 34. Cyndi Sprague (13) 32:00. (63 finished, 24 under 30:00).

SOUTHWEST

● **Broken Arrow, Okla., May 11**—One-hour run: 1. Larry Aduddell (28) 10m 617y; 2. Tom Kempf (49) 9m 1,259y... 10. Vern Whiteside (54) 8m 727y... 15. Marilyn Gay (27) 5m 1,373y. (from Vern Whiteside).

WEST

● **Kahului, Hawaii, Apr. 6**—Norman K. Tamanaha Maui marathon: 1. Gordon Haller 2:35:23; 2. John Notch 2:40:00; 3. Johnny Faerber 2:55:15... 9. Leah Ferris 3:23:47... 16. Ruth Anderson (40+) 3:36:15. (26 finished, 21 under 4:00; from Bob Getzen).

● **Corvallis, Ore., Apr. 20**—7-mile: 1. Wayne Ristau (25) 37:02; 2. Bruce Mortensen

(30) 37:08; 3. Clifford Thomson (35) 37:27; 4. John Gale (27) 38:06; 5. Graeme Shirley (28) 38:25... 13. Bill Beckwith (41) 43:00... 15. Mike Cheever (15) 43:11... 25. Marilyn Paul (36) 45:50... 34. Jerry Koenig (12) 48:59... 35. William Gorman (51) 49:05... 45. Jean Irvin (42) 52:50... 60. Gordon Sherbeck (67) 60:05. (from Bob Paul).

● **Weott, Calif., May 5**—Avenue of the Giants marathon: 1. Chuck Smead (SRRC/HSU) 2:21:05; 2. Dennis Kasischke (San Diego TC) 2:26:53; 3. Daryl Zapata (W Valley TC) 2:28:57; 4. Bruce Dewsberry (Ore. TC) 2:29:40; 5. Kaj Johansen (San Diego TC) 2:31:09; 6. Pat Buzbee (unat.) 2:33:07; 7. Ron Johnson (S. Ore. Sizzlers) 2:35:35; 8. Jeff Johnston (Dolphin-South End) 2:37:39; 9. Herb Parsons (Cambridge Sports Union) 2:37:39; 10. Tim Sweze (DSE) 2:38:30... 24. Ed Almeida (50, San Diego TC) 2:47:08... 42. Mike Boitano (12, DSE) 2:54:34... 71. Mary Etta Boitano (11, DSE) 3:08:21... 74. Joan Ulyot (unat.) 3:08:40... 93. Ruth Anderson (44, NCSTC) 3:20:18. (175 finished, 56 under 3:00, 110 under 3:30, 137 under 4:00). 13.1-mile: 1. Paul Daly (Ore. TC) 1:09:57; 2. Ole Kristensen (Ore. TC) 1:09:57... 5. Phil Paulson (40+, Pamakids) 1:22:45... 7. Paul Reese (50+, NCSTC) 1:24:03... 17. Lille Koski 1:35:18. (40 finished) 10 under 1:30. (from Dick Meyer).

● **Los Angeles, Calif., May 5**—Hanson Dam 10-mile: 1. Ron Fister 52:36; 2. Don Ocana 52:57; 3. Pat Miller 53:09; 4. Mike Chambliss 53:15; 5. Skip Shaffer (36, SBAA) 53:40... 23. Dave Parker (43, STC) 59:51... 40. M. Montgomery (67) 1:03:38... 71. Linda Bottlik (11, SBD) 1:12:05. (104 finished, 23 under 1:00; from John Brennand).

● **Camarillo, Calif., May 11**—Southern Pacific AAU 50-kilometer: 1. Carlos Alfaro (AZTL) 3:11:25; 2. Andrew Levinson (CCAC) 3:24:38; 3. Orville Atkins (38, STC) 3:30:11; 4. Bob Branch (CCAC) 3:32:08; 5. Joe Burgasser (35, STC) 3:43:02; 6. Dan Sheeran (STC) 3:48:48... 28. Linda Bottlik (11, SBD) 5:32:14. Teams: 1. Aztlan; 2. SBD. (30 finished, 10 under 4:00; from John Brennand).

● **San Francisco, Calif., May 19**—Bay to Breakers 7.6-mile: 1. Gary Tuttle 37:07; 2. James Crawford 37:28; 3. Phil Camp 37:37; 4. Ron Wayne 37:45; 5. Adelino Silva 37:45; 6. Tom Heinonen 39:06; 7. Alvaro Mejia (Columbia) 39:14; 8. Albert Thomas (Australia) 39:24; 9. Jack Bellah 39:27; 10. Sam Ring 39:32; 11. Patrick Stordahl 39:43; 12. Dan Makela 39:45; 13. Joe Taxiera 39:46; 14. Daryl Zapata 39:50; 15. John Beaton 39:54; 16. Emil Magallanes 39:58; 17. Jerry Tighe 39:59; 18. Kenneth Scalmanini 40:00; 19. Angelo Martinez 40:04; 20. Eugene M. Fitzgerald 40:05; 21. Bob Paulin 40:07; 22. Robert Darling 40:07; 23. Douglas McLean 40:17; 24. Dave Marlow 40:18; 25. Mark Covert 40:21... 51. James Shettler (40+) 41:30... 61. John Finch (40+) 41:30... 200. Mary Etta Boitano (11, DSE) 43:22... 342. Kathryn Loper 45:08. (about 4,000 finished).

● **Honolulu, Hawaii, May 28**—53.4-mile relay race: 1. Hawaiian Rangers 5:13:43; 2. Diamond Head Striders 5:22:11; 3. Tantalus Gold 5:23:15. (39 teams finished).

● **Honolulu, Hawaii, May 28**—Hawaiian 50-mile: 1. Jerry McGath 6:24:30; 2. Carlos Mora (40+) 7:26:38; 3. Gordon Dugan 7:36:55. (4 finished, from Tom Ferguson).

CANADA

● **North Bay, Ontario, May 4**—One-hour run: 1. Bill Marcotte (19, TOC) 11m 377y; 2. Dave Yeager (20, TOC) 11m 377y; 3. Norm Patenaude (29, LUTC) 11m 41y... 8. Ron Wallingford (40, LUTC) 10m 883y... 14. Joann McKinty (22, NTC) 9m 177y.

● **Toronto, Ontario, May 12**—MTRRA and E. Can. marathon Champ.: 1. Mike Kucharew (Brantford TC) 2:27:47; 2. Miro Svab (Sarnia TC) 2:33:02; 3. Jack Friel (U of T. TC) 2:36:46; 4. Nick DiCorpo (Mercury TC) 2:38:00; 5. Lorne Buck (40+, MTF) 2:39:07. (24 finished, 10 under 3:00, 24 under 3:30; from Mike Freeman).

RACE WALKING

● **Boulder, Colo., Apr. 14**—NAAU Senior One-hour walk: 1. Jerry Brown (Colo. TC) 7m 1671y; 2. Floyd Godwin (Colo. TC) 7m 1637y; 3. Bob Henderson (UCTC) 7m 1242y; 4. Wayne Glusker (West Valley TC) 7m 501y; 6. Howie Palamarchuk (Shore AC) 7m 488y; 7. Dale Paas (Colo. TC) 7m 220y; 8. Manny Adriano (WVTC) 7m 166y; 9. Mike Hale 6m 1638y; 10. Al Shrik (Colo. TC) 6m 1364y. (Teams: 1. Colorado TC (16 pts.); 2. Columbia TC (26 pts.). (17 finished).

● **West Long Branch, N.J., Apr. 21**—National AAU 75-kilometer walk: 1. Shaul Ladany (Israel) 7:25:08; 2. Gary Westfield 7:48:53; 3. Tom Knatt (North Medford Club) 8:11:16; 4. Alan Price (Washington Travelers Club) 8:49:45; 5. Don Johnson (Shore AC) 8:53:54; 6. John Markon (LIAC) 8:57:39; 7. Chuck Hunter (Colo. TC) 9:02:41; 8. Larry O'Neil 9:15:27; 9. Randy Mimm (Penn. AC) 9:17:29; 10. Gary Bywaters (Pa. TC) 9:34:28.

● **Des Moines, Ia., Apr. 28**—National AAU 25-kilometer walk: 1. John Knifton (NYAC) 1:56:03; 2. Floyd Godwin (Colo. TC) 1:58:06; 3. Jerry Brown (Colo. TC) 2:01:27; 4. Bob Henderson (US Army) 2:03:12; 5. Augie Hirt (Columbia TC) 2:05:55; 6. Al Schrick (Columbia TC) 2:14:54. Teams: 1. Colorado TC (13 pts.); 2. Columbia TC (21 pts.). (13 finished).

● **Broomfield, Colo., May 4**—Rocky Mt. AAU 10-kilometer walk: 1. Floyd Godwin (Colo. TC) 45:32; 2. Chuck Hunter 56:57. (from Floyd Godwin).

● **Boulder, Colo., May 10**—Rocky Mt. AAU 20-kilometer walk: 1. Floyd Godwin (Colo. TC) 1:37:23; 2. Mike Dewitt (US Army) 1:46:14. (6 finished).

● **Portland, Ore., May 12**—National AAU Jr. 5-kilometer: 1. James Bentley (SRW) 24:28; 2. Mark Randle (BHS) 24:58; 3. Brad Bentley (SRW) 25:20; 4. Bob Rosencrantz (U of W) 25:45; 5. Jeff Reynolds (EOC) 26:01; 6. Scott Massinger (BH) 26:54; 7. John McCabe (L and C) 28:13; 8. Greg Bentley (11, SRW) 32:24; 9. Steve Bentley (9, SRW) 35:39. (from Don Jacobs).

● **Columbia, Mo., May**—20-kilometer: 1. Augie Hirt 1:49:50; 2. Jim Breitenbacher 1:55:18. (6 finished).

● **Arkadelphia, Ark., May 25**—NAIA 10-kilometer: 1. Carl Swift (Azusa Pac) 49:18; 2. Paul Ide 49:36; 3. Jim Bean (OCE) 49:54; 4. Hale (Okla. Chris.) 50:03; 5. Heiring (Wisc/Park) 51:13; 6. Rob Frank (OCE) 53:12.

READERS' COMMENTS

FEWER MARATHONS

Can you please keep up the fight to increase the number of races—*not marathons*. In October, I know of six marathons within driving distance and not one 10-, 15- or 20-mile race. We even have a group that's promoting its very first race, and guess what? Yes, it's a marathon.

Try to convince race organizers that no sensible athlete will run more than three or at most four marathons a year. In our AAU district, we have five marathons scheduled this year, no other races longer than 10 miles and only three 10-milers.

*John Chew
Lockport, N.Y.*

COOL HEAD

Here's an idea I would like to pass to other long distance runners:

As protection against the heat, I have been wearing a hat made of terry cloth while participating in long distance

races. This is basically a hat that has been designed for tennis players. Before a race, I soak the hat in water. It really keeps me cool, particularly as the water evaporates.

In marathons, I pick up my refreshment at the aid station, drink about half and pour the other half over my hat. This keeps it moist and my head cool all the way. I have found that when my head stays cool, so do I. In the last marathon, I kept pouring ERG over my hat with no detrimental effect.

*Hans Roenau
Tiburon, Calif.*

PARENTS

In the May issue ("Looking at People"), John Boitano felt that it was necessary to react to criticism of his daughter's marathoning.

I am curious to know how much criticism Richard Heywood is subjected to (or, more likely, how much admiration) because of his son's marathon efforts ("My Son, the Running Prodigy," May 74).

I, for one, admire both youngsters and the parental guidance that encouraged them.

*Dr. Paul Milvy
Scarsdale, N.Y.*

MAINE

After reading in the May issue that Maine is the "worst" state on a per-capita basis regarding runners ("Catching Up to California") my initial utterance was (colorful expletive deleted).

Even though Maine is blessed in being a geographical recluse, perhaps too the bluejays are heavy on the single out-bound transmittal wire and the news is simply not getting out.

These days, everyone seems to be running in the Pine Tree State. Yearly, we have over 50 road races, including many women, and many times we thrash it out in a group that includes over 80 runners.

We wouldn't want the rest of the nation to get the image we in Maine are obese, indolent and complacent. On the contrary, great numbers of us are lean, mean and hungry for a competition that can only be found in the purest sport-form: a road race.

*Dick Goodie
Portland, Me.*

BOSTON

This year, we had 1399 runners under 3:30 (at the Boston marathon). While the logistics are appalling, the fact is admirable because it certainly proves that most of the official entries were qualified, prepared and dedicated.

We're trying to find some solution to the straining of facilities. But in a point-

to-point race it's a real headache. Our friends at the Prudential are afraid that their tower may come tumbling down if we don't do something.

As you point out ("Editorial," June 74), if we do lower the limit drastically, a great many people will run anyway. Your point about various age requirements is worthy of consideration. My concern is that we'll be adding further dimensions to the complications.

At any rate, this is strictly a labor of love, but love affairs pay off in more ways than money.

*Will Cloney
Director, Boston marathon
Boston, Mass.*

It distresses me to read of the bickering continued over the problems of organizing and staging the Boston, and continued talk of raising the entry standards. I fully appreciate the great job Will Cloney and Jock Semple do in putting on this masterpiece, but isn't it about time that they recruited more help to ease their work burdens.

How about enlisting the official help of the Commonwealth of Massachusetts or the City of Boston, for instance? How about using the full resources of the governmental agencies to relieve the local which now falls on just a few men's shoulders?

Rather than cut back the field, how about revised starting procedures? Runners could be started at 10-15-minute intervals, depending on their credentials, or sent off in waves. That way, there would be no jam-up at the start, the true contenders would be out in front to have it out and the rest of the pack could wave its own races. And easy arithmetic at the end would enable each marathoner to get his net running time.

*Elliott Denman
West Long Branch, N.J.*

I believe what makes Boston the unmatched, greatest marathon of them all is the spectators.

Even an old lady came up with some good coaching for me in the later miles. She shouted, "Hold your arms up." I did and it helped.

*Roger Rouiller
Parkersburg, W. Va.*

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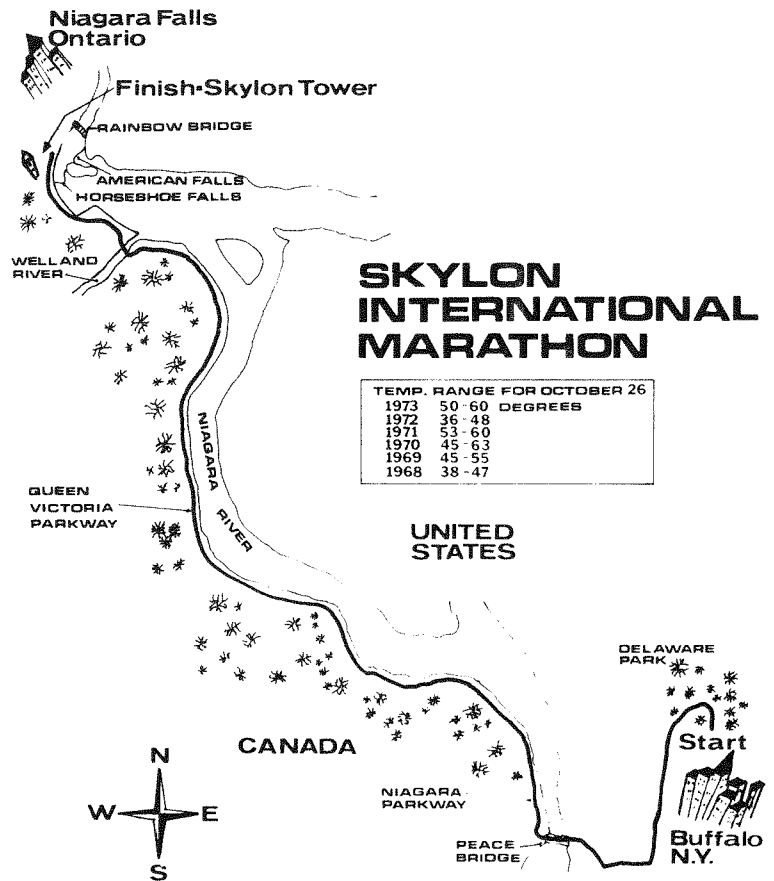
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Date of Birth _____ City & Country of Birth _____

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T-shirt Size (Check one) Small Medium Large Extra Large

Team Entry (List team name and names of 3-6 team runners; only first three will count in scoring) _____

Have you run a marathon before? _____ How many _____

Best time _____ Where _____

Signature _____

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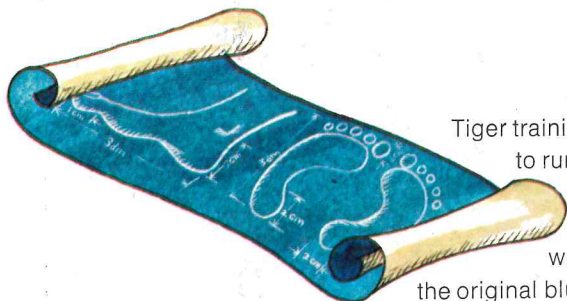


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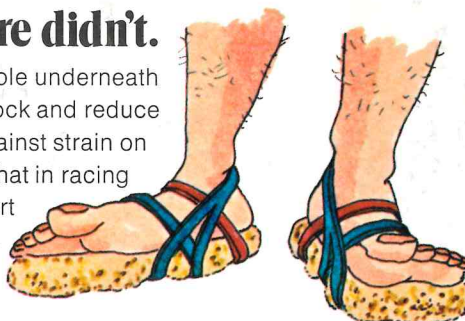
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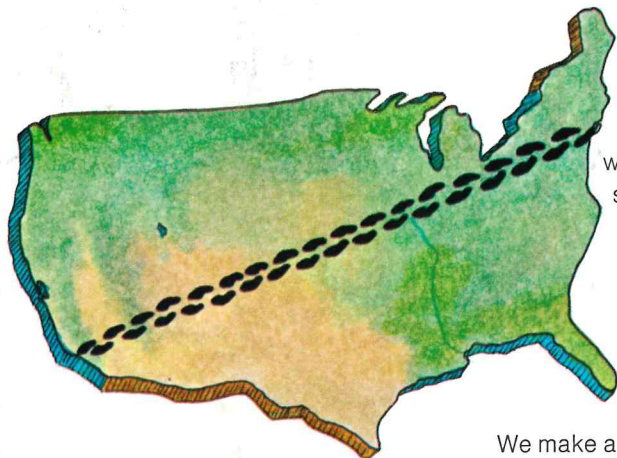
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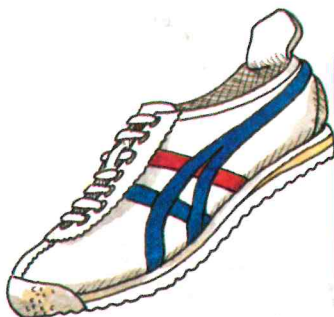
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