

Runner's World



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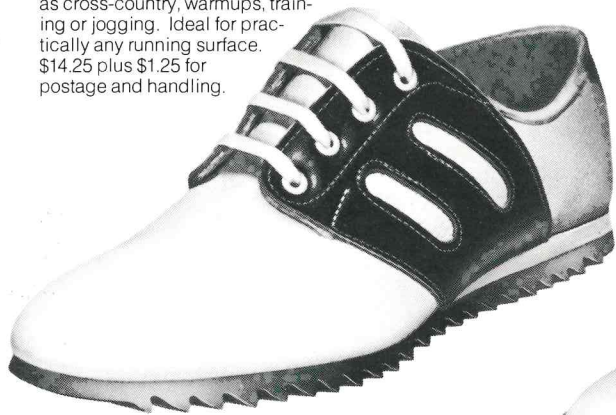
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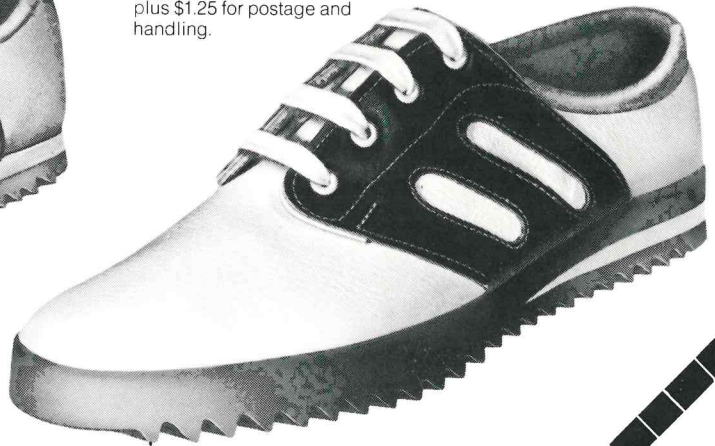
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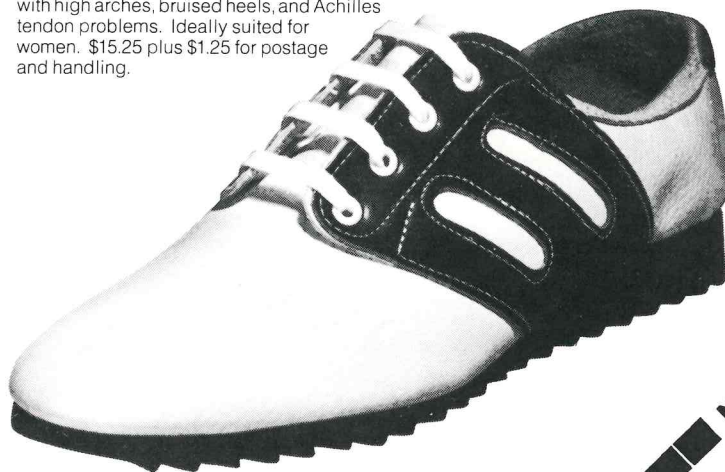
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RUNNER'S WORLD

Volume — Nine June, 1973 Number — Six



COVER:
Last year's Olympian steeplechaser Doug Brown of Tennessee had several fast early-season clockings—including an 8:34 steeple. (Stan Pantovic)

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FROM THE PUBLISHER

The Blackheath Harriers in London, England, certainly got things rolling this year in the *RW* 24-hour relay. On April 13-14 they covered 291 miles 306 yards, which puts them third on the all-time list. The record of 295 miles 269 yards still stands.

If you are interested in running a 24-hour relay, it works like this: 2-10-man team, each man runs one mile and passes baton off to the next man in line; if a man drops out or misses his turn he is through, but the team can continue. After the relay, be sure to send in complete results so we can give you proper credit.

On July 13-14 we have planned the *Runner's World* Weekend. Included in the program are the fourth annual *RW* 24-hour relay, a 50-mile track run, three- and two-mile fun runs, and a 50-mile (5 x two-mile) relay.

Right now the West Valley Track Club is getting together a good team and they hope to break the 300-mile mark. Maybe you have a team that would like to go after 300 miles too? If so, let us know. Also, if anyone is interested in going after a 50-mile track record, this would be the time to do it. More information on page 30.

In about two to three months we are going to be in the market for a full-time advertising manager. We are interested in getting an experienced advertising man that can handle all our publications. The job would involve writing letters, making phone calls, some traveling, etc. The right person could really be helpful to us and make good money. Send information to Bob Anderson, Box 366, Mountain View, Calif. 94040.

In July we are coming out with our third magazine, *Aquatic World*. It is going to be a bi-monthly and the cost is \$3.50 per year. If you are interested in swimming, I think you'll enjoy this publication. We are also looking for people interested in writing articles on swimming. We are getting many good articles, but we can always use more. If you might have something, please drop me a note.

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RUNNER'S WORLD MAGAZINE, POST OFFICE BOX 366, MOUNTAIN VIEW, CALIF. 94040

COMMUNICATING WITH READERS

Magazines specialize in one-way communication. Writers speak, readers listen—except when the writers fumble their lines and a strongly-worded rebuttal is in order.

Once a year or so, we like to survey our subscribers, to find out what they're thinking. The big-time magazines say they are lucky if they get a 1% response from questionnaires like this. We know we can count on hearing from at least one in five of our readers. Runners are that anxious to be heard.

The latest survey ran true to form. A two-foot stack of completed questionnaires sits here in the office, still waiting to have much of the good information drained from them. Already some of it has gone in the *Runner's Training Guide* (May booklet) and the diet feature scheduled for this issue but delayed till next.

Here, though, the subject is content of the magazine. What do runner-readers think of the stories we're using? What should get more emphasis? What should get less? Are most readers pleased with the magazine?

Obviously, the best a magazine can hope to do is hit a balance that pleases most of the people most of the time, continually weighing the balance on one arm or the other as we sense reader moods changing.

Our last survey was in late 1971. Using results from that, we made some major content adjustments. Judging by circulation increases, which admittedly is a cold way of looking at things, the changes came across well. Readership has jumped almost 300% since then.

More big changes came this January, with the new monthly format. We wondered how this was being received. Had we put too much weight on one side of the balance at the expense of the other?

We can't please everyone. We know that. But it is heartening to know that almost half of you have nothing negative to say. One question asked what readers want to see covered. Forty-seven per cent of those responding left this space blank. In this business, where readers don't need an invitation to voice complaints, no response indicates either that they're satisfied or at least not sufficiently disturbed to comment. This percentage was about the same in 1971.

Two more results haven't changed

much. Readers most enjoy the informal, "for-everyone" tone of the magazine. And they're driven by a healthy self-interest. That is, they most like to read stories they can identify with and which help them directly. Personality and practical stories always have been the meat of the magazine, and probably will never give up this role.

This reader is typical. "I enjoy the interviews and practical articles much more than the stride-by-stride descriptions of the West Wolf's Ear Invitational," he says.

One feature, however, has changed markedly in the last year and a half. It's still definitely a minority opinion, but it represents a disturbing trend we might call "creeping snobbism."

There are two parts to this. One is the idea that there's no place in the magazine for the common runner. A reader says, he doesn't want to see any more "opinions of four-hour marathoners who don't train." The other view is that only long distance runners count. A subscriber writes, "You have let go of a very unique approach to a wonderful sport by combining distance with track and field news."

Only small percentages of runners feel this way. (Seven percent want us to concentrate on high-level racing. Three percent want distances only.) But the upsetting thing is that they feel so strongly against sharing the pages with people who think differently. They want forced separation by speed and distance, and later perhaps by age, area and sex as well.

We don't go for this. All along, we've wanted to bring more runners into the sport and bring them together rather than separating them into neat little categories. Runners are runners. This fact automatically means they have more similarities than differences. The basic action is the same. So are the obstacles and the means for overcoming them.

Separating "runners" and "joggers," "runners" and "sprinters" does no one any good. The divisions are artificial. They are all runners, and they have a lot to teach each other.

Saying that only high-level racers—distance runners—are worth reading about and the only ones capable of doing or saying anything worthwhile, that only they are real runners and the others are some-

thing else again, creates a class system that no one needs. Class systems hurt all the classes, but most of all the "lower" ones that make up the majority.

We're just realizing how big that majority is, and how little information is aimed at it. Recently, the President's Council on Physical Fitness commissioned a nationwide survey of exercise habits. The Opinion Research Corporation of Princeton, N.J., did the polling.

The pollsters learned that 60 million Americans exercise regularly. Of those, though, a startling number are runners: 6.5 million.

Who do these millions turn to for advice and encouragement on running matters? Not to *Runner's World*. We reach fewer than one runner in 200, and it's a safe guess that the 199 non-readers are the ones who most need the message that we put out.

The more runners we can reach in the future, the happier we'll be, for both practical and philosophical reasons. Subscribers, of course, pay the bills. And the more subscribers we have, the better job of reporting running we can do. The fact that circulation doubled in the last year alone indicates we're on the right track (or road, if you prefer).

Financial matters aside, though, there's a bit of the missionary in us. We base the magazine on several principles: (1) that running is healthful; (2) that anyone can benefit from it; (3) that it's our obligation to attract people to running and give them the information to practice it.

We would rather see the stands empty and the tracks full of 10,000 people running six- or seven-minute miles than to see the same 10,000 oohing and aahing and growing fat on hot dogs and Coke while watching one man run 3:50.

It's wonderful that he can run 3:50, and we have an obligation to tell about him when he does. He can teach and inspire. But at the same time we have to realize that not one reader in a hundred, maybe even one in a thousand, races at anything approaching "serious" levels.

We have to tailor our content to our audience—the one we have and the one we want to attract. We see no need now for major content change—only minor adjustments in content balance.

NEWS AND VIEWS

Thinking Away Fatigue

Pat Tarnawsky has described techniques of meditation that may improve running performance ("Mind-Body Control," April 73). Demitri Kanellakos comments with some authority on the subject. Dr. Kanellakos is a senior research engineer at Stanford Research Institute in California. He's in charge of an SRI project investigating the psychobiology of transcendental meditation (TM).

A few weeks after I began to meditate, I relaxed so much that I began to run with greater ease. I thought I was getting "lazy," not "pushing" hard enough. Yet after timing myself every day for a month I discovered that my overall times were reduced by 10-15%.

Now, after almost four years of practicing TM daily, I still run—but not for the same reasons I used to. I enjoy running for its own sake rather than for a specific health reason or running away from myself—or a problem I did not want to face.

It takes energy to keep muscles all tensed up. Tests show that tension and anxiety are reduced after one begins the practice of TM. As my tensions and stresses gradually dissolve during the deep, profound rest that accompanies the TM practice, the energy that was used to keep the muscles tensed up is now available for more constructive, purposeful use. Hence, I get the feeling of having a lighter body—as if I don't carry as much "baggage" with me when I run.

Psychological tests show that coordination between mind and body is improved as one practices TM. I notice that I run with a feeling of more balance both in my leg movements and in the movements of hands and body which accompany running. My breathing is easier now during running and I have become much more sensitive to my body, knowing more accurately, it seems, how far I can push it and still build myself up instead of wearing myself down. For example, it was a very frequent occurrence for me to sprain my ankles several times a year while running. After I started TM, I've not had a sprained ankle—only a couple of near-sprains.

A friend of mine who is a mountain climber and regular runner told me of an incident where, being tired and cold (especially in the extremities) after a day's hike at 11,000 feet, his toes became warm minutes after he sat down to meditate. Blood flow may be directed during TM where it is most needed. My personal experience is that I don't feel as much the extreme variations of cold and hot days I used to before I began to meditate. Running therefore is more enjoyable.

A number of scientific studies involving TM are now being conducted, ours included. Franz Holl at the Sportschule in Cologne, West Germany, is investigating the effects of TM on athletic performance. It is attempting to verify claims by some athletes that TM has improved their coordination, increased their stamina and improved their times. At the same institute, Regina Schachmann is doing another extensive physiological study on athletes.

Results of these studies, along with practical descriptions of how to practice TM, should be of interest to *Runner's World* readers. I plan to make this information available once I have gathered the necessary data.

I wonder whether any runners among you are practicing TM. I would appreciate hearing from them about how meditation has affected their performance. (Write to

me at 3584 Lupine Ave., Palo Alto, Calif. 94303.)

It is my understanding that the deeper the rest one gets, the more vigorous the activity one can perform following the rest. TM appears to provide deep, profound rest, both on the physical and mental levels. Therefore, it is a technique of preparation for activity that may help some runners overcome some of their physiological as well as psychological problems accompanying training and competition.

From Demitri Kanellakos, Ph. D.

Two Running Encounters

Kaj Johansen is a medical doctor from San Diego. His article is reprinted from the San Diego Track Club Newsletter.

Number One: It had been a long, unsatisfying day in the lab, and running home required going up the north side of a mountain—with the added fillip of a sudden driving rainstorm. It was therefore with a not totally placid outlook that I wheezed and slogged down the other side toward home. And when the dog came racing out toward me, growling and baring his teeth, the instant reflex of panic and the surge of adrenalin was followed by stone cold fury.

The usual ploy of bending to grab an imaginary rock this time for some reason elicited no response. The feisty mutt kept on coming, such that for the first time ever, like a good left-footed place-kicker, I was able to swing my size 12½ shoes squarely and cleanly right into the dog's ribs. As the cur flew five feet through the air, spinning wildly and yelping loudly as he hit and rolled, an almost beatific smile appeared on my face. The drizzle stopped, the sun broke through, and the rest of the trip home was covered in a pleasurable haze.

Number Two: An overly-long and tiring run had left me hot and out of sorts. The prospect of stopping and taking off my shoes while taking on a beer beckoned.

Suddenly, two 10-12-year-old boys on bikes discovered me and decided that here was some real sport. For more than a mile they harassed me, spouting newly-learned obscenities and childish reflections on people silly enough to be running around in their shorts.

"Hut, two, three, four" was proffered to help my cadence. Finally, as a climax, a long downward slope gave the possibility of real entertainment—zooming close by the runner and maybe giving him a poke while at it.

The first little beggar streaked by,

SPECIAL ANNOUNCEMENT

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just missing. His compatriot, coming even closer, was within range when—*smack!*—my hand swung up and back in a lazy arc and smashed against the tormentor's mouth. Engraved into my mind over the years since is the look of pure shock on the tormentor's face as blood spouted from his split lips. The joy in my heart more than banished the sting on the back of my hand.

Moral: When you mess with the bull, you get the horn.

From Kaj Johansen, M.D.

Women Runner's Image

Hopefully, the day will come soon when the media will stop treating women distance runners as geeks.

In carnival slang, a "geek" is a performer in the sideshow who does something weird. Like, for instance, the man who bites off chickens' heads is a geek.

The media treat women runners as geeks when they present them to the public not as athletes but as curiosities.

They do this in three ways.

1. *Too much attention of the wrong kind.*

A runner recently wrote me from the nation's capital, "We had 300 men and one woman in our George Washington's Birthday marathon and she got all the ink."

I agree with him. When the men's performances get ignored because of the mere presence of a female in the race, it is lousy reporting and it is unfair. Unfair to the men, and unfair to the women because it makes geeks out of them.

Another example:

At the Earth Day marathon this spring, the *New York Times* devoted most of its coverage of the race to competitors Kathy Switzer's and Nina Kuscsik's impending divorces. The athletic aspect of the race, and the men's part in it was reduced to a few scant paragraphs.

A number of Met-area runners, very annoyed, wrote letters to the *Times*. They felt that a discussion of the women's marital affairs had no place in such an article.

I agree with them too. If the *Times* had found the divorces all that fascinating and significant, the paper could have covered them in a feature somewhere else. That way, the marathon could have had its due on the sports page as an athletic event.

2. *Too little attention of the right kind.*

Sorry to criticize the *Times* again. But in its coverage of this year's Boston marathon, it did not list *any* of the women finishers in the official list, along with the first 50 male finishers. The women were official entrants, so why the omission?



Boston's winner Jacki Hansen meets the press. (Rick Levy)

Especially in view of the fact that the *Times* had room for a big tabloid-type photo of Jock Semple and Kathy Switzer engaged in pre-race friendliness.

The overall impression of the *Times* coverage was that women in Boston are still geeks.

3. *Cheesecake pure and simple.*

A great example is the famous photograph of Kathy in the Boston marathon last year, showing her primping her hair

as she ran along. It not only hit the papers here, but went all over the world on the wire services. If a photograph had been of a noted male marathoner hitching up his jockstrap or adjusting his headband, it would have been just about as relevant.

Okay, okay—granted that the media are making the euphoric discovery that women athletes can be feminine, even sometimes pretty. Whoopee! After all the dark decades when they (and a lot of other people) thought that women athletes were muscle-bound dykes.

But can we hope that this euphoria is only a puerile transition stage, after which everybody can all get down to brass tacks, which is running?

We mustn't quarrel with the media too much. They were a big help to the women when they were trying to break into long distance. In their way, they contributed to the AAU's surrender on the women's distance legislation. Admittedly, there is still also a slight tendency of the media to treat male distance runners as geeks.

Still, there is a lot of room for improvement. Isn't it up to us, in a way, to see that the women's image is not manipulated and falsified in this way? There are a few ways that we could combat the geek-making.

- In our own media and PR efforts on behalf of the sport, we could put the emphasis where it should be. The race promoter, for instance, who burbles to the press about the dishy woman he has in Sunday's upcoming marathon is putting the emphasis where it shouldn't be. After all, a male runner doesn't merit coverage just because he is male....

- Women athletes who have little experience in dealing with the media sometimes help falsify their own image. They answer silly questions without thinking, and they pose for silly photographs. At my first marathon, I let a local photographer snap me doing warmup kick-ups, and I came out looking like a Rockette, only somewhat less gorgeous. Never again.

- When we see geekery in the media, we could protest. Write letters, telegrams. Ask them diplomatically, rationally, but firmly, if you're mad enough, not to lay this carnival stuff on us. In my experience with media people, most are open to suggestions if made in the right spirit.

The women have been fighting for equal rights in competition. This means—to me, anyway—that women runners should not get less than their due, and they should also not get *more* than their due.

From Pat Tarnawsky

IAN STEWART



Mark Shearman photo

Look back on the last four years and think who is the top 5000-meter runner from that period—that entire period, not just a single season.

Ron Clarke, the former world record holder? He has the fast times, but has lost key races.

Emiel Puttemans, current record holder? He hasn't yet won the big ones either.

Dave Bedford, Britain's 13:17 man? Same story.

Lasse Viren, the Olympic champion? So far he's a one-year sensation, as his Finnish predecessor Juha Vaatainen had been in 1971.

No, the top 5000-meter man since 1969 wouldn't be any of these. A better case could be made for one whose name may not come to mind so quickly: Ian Stewart of Great Britain. He isn't the fastest, but his competitive record over the long haul is unmatched.

Stewart was just 20 years old in 1969 when he won his first major title—the European championship.

A year later, he trounced Kip Keino and Ron Clarke in the Commonwealth Games with a European record of 13:22.8 (at the time a mark which only Clarke himself had bettered).

Ian won the bronze medal at Munich, passing Steve Prefontaine in the last few meters and almost catching Mohamed Gammoudi. This was after Stewart had taken a bumping and lost considerable ground on the leaders in the last two laps.

Ian is known as a hard runner, a competitor who will run up his brother's back if need be to win. In fact, he and his brother Peter have had some spirited duels. Peter is a 3:38 1500-meter runner who qualified for the British Olympic team before being injured last year. Ian says Peter is a better miler, but "that is not saying if I raced him over a mile he would beat me!"

RW: *Let's start at the Olympics last September, with the 5000-meter heats. Were they just a formality for you?*

Stewart: A lot of people think that. When it is two through and the two fastest losers, though, you don't hanky-panky about in it. I reckon that was the toughest qualifying round in the whole of that Games. I think that was a real cut-throat,

nasty thing to do. Any other qualifying round, you could afford to make a slight slip somewhere.

RW: *Did you fear any one runner more than the others in the final?*

Stewart: In the final of the Olympic Games you can't say there is only one man. Especially that final. It was the most open final of the lot. For instance, in the 400-meter hurdles you could say it was (Dave) Hemery, (John) Akii-Bua or (Ralph) Mann. Those were the ones for the medals. In the 5000, there were any of a half a dozen who could have won it. One would look down the list and say (Lasse) Viren looks good, (Steve) Prefontaine has some good qualifications, and so on. And each one would have equally good qualifications to be there, and a right to win that medal.

RW: *What about Mohamed Gammoudi, the defending champion?*

Stewart: I thought he would win the 10,000 if he had stayed on his feet. (Gammoudi fell midway through the race.) But I thought I should have beaten him in the final of the 5000 because I was only one point off him. (Their times were 13:27.4 and 13:27.6.)

RW: *Describe that 5000 final for us, from your viewpoint.*

Stewart: I did not run well. It is not often I slip up in a big Games, but I did there, and I could have kicked myself for doing so.

With 800 meters to go, I was on Prefontaine. Viren came past with Gammoudi on the back of him, and I could not get out. I stepped out to get behind Gammoudi, with 600 meters to go, and just to get around Prefontaine. And as I tried to get around him, Prefontaine came out sideways and knocked me almost into the third lane. I lost a hell of a lot of ground there—10 or 15 yards.

Things went even more wrong for Prefontaine early on. He came up to me and said, "It's not fast enough." And I said, "What are you going to do about it?" This was after about two laps. I was faster than he was, so I was alright.

There was only one other runner like me, and that was Viren, because both of us are very long kickers and we will kick from a long way out. On our day, we are very close in that relationship.

If somebody said to me, "How would you run that race again?" I would say I'd run it exactly the same. The only thing I would not do again is let that bloody gap develop, because if I had come out of the bend with Viren and Gammoudi I would have beaten them. I don't think there was anyone in that field who could cover that last 100 yards faster than I.

It was when I was hit and lost those two seconds that things did not go right. But I would not have run the race differently. I could give Dave Bedford 10 yards with 600 to go, but not Viren, Gammoudi or Prefontaine in that race. I thought with 200 to go I was not going to get anything, and when I came off the bend I did not think I was going to get a medal. But I went past Prefontaine 10 yards from the line, and I was eight-tenths up on him when I crossed the line. I would like to have had a watch on my last 100!

RW: *Can we back up now and look at your running leading up to Munich? You were just 20 years old when you won the European championships 5000 at Athens in 1969. Reportedly you were doing only about 40 miles of training a week then. What was your schedule?*

Stewart: Yes, I was only getting 40 miles a week. I was doing track sessions, like I would do 16 quarters with a minute's jog between, averaging around the 62-63 (seconds) mark. We have got a faster session of quarters with 2¾ minutes jog and my best for them was averaging around 59.

Another session was repetition halves, three of them in 1:58-1:59 with a five-minute jog. Before the national championships, we did progressive miles with five minutes rest. I ran 4:19, 4:14, then 4:11. Then before Athens I ran 4:18, 4:14 and 4:08, and I was quite fresh after that.

I trained a lot with my brother (Peter) from the beginning.

RW: *Your biggest victory came in*

1970 at the Commonwealth Games. Will you describe what led up to that?

Stewart: I went to the States in the winter. I won one race and was second in a mile—Los Angeles and Kansas City on the boards. I was not in any great shape.

I was training very hard with Pete, and he seemed to be hammering me when we trained, although I was as physically fit as he. I was depressed about that just before the Commonwealth Games. Then we raced in a mile.

Peter has been basically always a better miler than I, potentially. That is not saying if I raced him over a mile he would beat me! I was training to race over 5000, and I raced him over a mile on more or less bulk work. He had the edge on me. But I ran from the front, and he came at me at the last bend. We both ran 3:57, but I won.

After that, I went to Stockholm to run against (Ron) Clarke. I lost to (Harald) Norpoth but beat Clarke in 13:35 (for the 5000). It was a very fast last 600 there—very fast.

RW: *That 5000 at Edinburgh was one of the most exciting races of this century. What was your thinking during that run?*

Stewart: I was running well. There was no doubt in my mind at any time that I was going to win. I psyched Clarke in Stockholm. I only thought about Kip Keino.

There were five or six of us together with a mile to go. With 800 to go, (Ian) McCafferty took off and I went with him. Keino went with us. McCafferty broke the bunch. I remember thinking, "I'm glad somebody else has gone now rather than me having to do it." I was thinking about it.

Coming off the crown of the bend into the bell lap, I took off and started going with 500 yards to go. I thought if I could keep Keino under pressure till 150 meters from the tape, I would possibly get him, and that was why I took off so early, to really make him have to run hard rather than to let him decide when to go.

This is what happened, you see. A lot of people had watched him and waited for him to make a move. He likes to say, "Well, I'm Kip and I am going." I took the bull by the horns and went with 500 left. It just got faster all the time. He tried to get round me with 200 meters to go, and I fought him off. (Stewart gained almost five seconds on Keino in the last half-lap while running history's third-fastest 5000. Clarke, the only man to have gone faster, finished a distant fifth.)

RW: *Skipping ahead to 1972 (Stewart was injured and ran little during '71), you ran 13:24 in the AAAs—the British national championships—but were a reasonably detached third behind Dave Bedford (13:17) and Ian McCafferty (13:19). Did this result, two months before Munich, worry you?*

Stewart: I was very worried. I got to the AAAs very fit, but not all that sharp. I could not get any enthusiasm for it, because I could not possibly see how three runners were going to beat me over 5000 on that night. (The first three would be the probable British Olympians.)

I did not like Bedford beating me, but there it was and I was stuck with it. After that, things took a change. We went to Font Romeu in France for high altitude training with Dave Bedford, and we decided to hit the miles. Who better to do it with than the "King of the Miles?" I came back from there and I was bloody fit.

Bedford was hammering me. I was on my knees. I did about 130 miles on the first week I was there. I got two high mileage weeks in.

Later, when we were doing altitude training at St. Moritz, I chopped down my mileage. And yet Bedford was still doing long runs—four times a day, 10s and 20s. He was on the brink then and I did not think he would run very well at Munich.

RW: *What are your opinions of Bedford, who is probably your chief rival in Britain?*

Stewart: I like bloody Bedford. He's a good bloke. Nothing wrong with him at all. Bedford was like a mate of mine while we were there (at altitude).

It's kind of a funny situation with Dave Bedford. You either like him or you don't. I happen to get on with him, but I can understand people who don't.

I remember something Dick Taylor said to me. I roomed with him at Athens in '69, and he was cut up about running badly at 10,000 meters after having a great year. He said, "When you're down you know who your friends are." I think Bedford found out last year.

RW: *Does professional running interest you now?*

Stewart: If somebody else got a circuit going in competition with Michael O'Hara's circuit (International Track Association), it would be a lot better. You would have one circuit racing another, like football teams, in which case it would be a hell of a lot more competitive. Or you have got to get a lot more people in it as there are mainly Americans in it at the moment.

You are not going to get that many people in London to watch all those boys who run in the circuit unless you get Bedford and me plus Puttemans running in a race at the same meet. If we ran somewhere else at the same time, the crowd would come to watch Bedford every time.

RW: *You didn't run cross-country this winter, even though you placed third in the International race in '72. England was soundly beaten at the last International. Is the quality of cross-country in this country slipping?*

Stewart: I can't see England winning that cross-country again. They'll have to drop the national to seven miles (from nine) before they win that again. You run the English national over nine miles of hard and heavy going, and it is a great thing to get into the England team. But the International is like an anti-climax. It's a totally different race.

It's quick—fast and flat. Until you get a team where you get someone like myself, Bedford and Dave Black (world junior 5000 record holder) in that team and all running well, you are not going to win that International again. I can't see it.

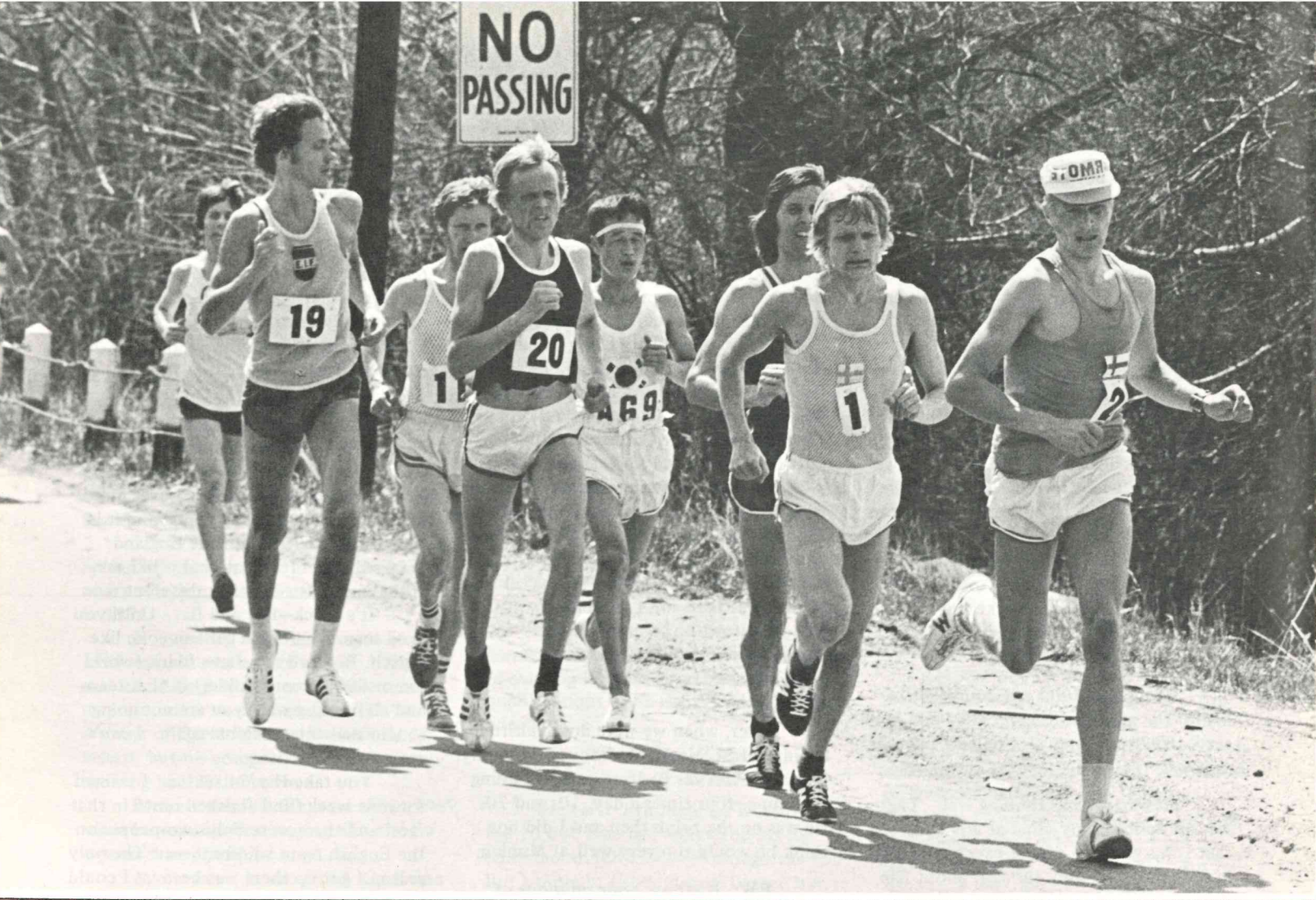
You take the '71 season. I trained for nine weeks and finished ninth in that race, and there were only two people on the English team who beat me. The only reason I got up there was because I could run faster than the other English runners.

RW: *Have you lightened your training since the Olympics?*

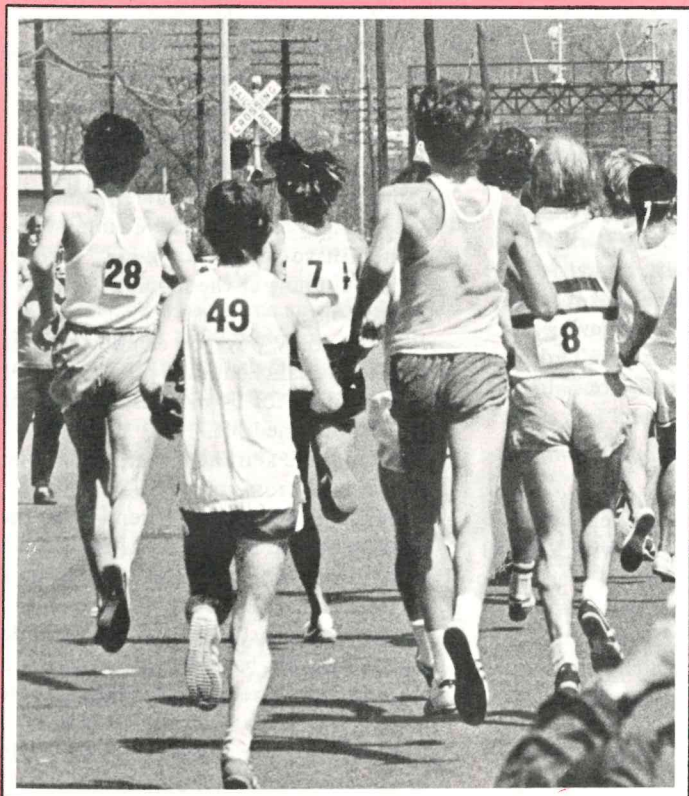
Stewart: At the moment, there is nothing for me to aim at, and I find it very hard to get interested in it in such an intense way as I was before the Games. Probably I am not training so hard, but I am enjoying it at the moment, and really until six months off the Commonwealth Games I have not got to train so hard. I am just running at the moment because I like to do it.

The only way you can do this high-intensity, quality-mileage program is not to carry it on for 14 months, which I did and got browned off.

Say you start at Christmas. Forget the national cross-country. You aim straight for the Games. Viren's done that. I believe in this system, and I shall conduct myself more in this manner. You can plod on training hard, bashing in those miles like we do in this country. But Viren does not do this. He has enjoyed himself, racing here and there and not being bothered whether he finishes second, sixth or last. He's Olympic champion. He has got what he wanted, and he is enjoying it.



PHOTOS BY RICK LEVY



BOSTON'S 77th EDITION

*The grand old marathon
creates some heroes and burns
up some dreams.*

At five miles (above), the Finns lead the race upfront, and at about seven Jon Anderson (No. 28, left) is in pursuit. But the race at Boston belongs as much to the 1300-plus followers as to these front-runners. All of them contribute to making the race the spectacle it is. This is a report of the race from four distinct points of view.

GOING WITH THE WINNERS

BY DAVE PROKOP

I remember the first time I saw the Boston marathon from the press bus. It had been an overwhelming experience, something I'll never forget. Off the heights at Hopkinton they had streamed that April day in 1971, almost a thousand strong. A human tidal wave. And as the bus retreated the wave came after us, downhill and uphill and winding around the bends like some giant serpent.

Three times I had been a runner lost somewhere in a pack like that coming out of Hopkinton. But when you're in it you're only aware of yourself, the physical act of running and the runners immediately around you. Now, as I saw the race from this new perspective, I was deeply moved. The spectacle was so dynamic you couldn't help, if you were a runner yourself, being affected by it.

There are countless visual details about the Boston marathon one is effectively screened from seeing when one actually runs the race. The sheer physical spectacle of 1000-plus runners turned loose on a two-laned road is only one of them. Another is the number of people who watch the race. Half a million people, I heard one year and I remember thinking, "Half a million! That's impossible! How could I have run past a half a million people without noticing them?" Plainly, one's concentration on the race and, later, one's deteriorating physical condition get squarely in the way.

Sadly, they also get in the way of a true appreciation of the character and variety of the course. My three runs at Boston left me with nothing more than a few vague general impressions of the route I had run. And riding the bus for competitors from Boston to Hopkinton the morning of the race didn't leave me with much more. Knowing you would have to return on foot every foot of the way that afternoon, the drive seemed to take forever. You caught your mind dwelling on this. If you noticed anything specific about the course at all it was that there seemed to be a lot of hills. Desperately, you sought for ways to distract yourself. You usually wound up reading a newspaper or talking to a fellow runner.

Riding the press bus on race day may be the only way to truly appreciate the character of the Boston course. Oh, you could drive the route almost any other day of the year, but all you'd see then is a road. Only on race day does it be-

come something much more—sacred ground almost. And only when you can follow, uninterrupted, the runners who make this ground sacred and watch them in their struggle can you objectively begin to know the Boston course.

At a few minutes past 11 on marathon morning this year I made my way to a door off one corner of the crowded Hopkinton High School gymnasium. Beyond this door lies a tiny locker room that is reserved each year for the star entrants in the race. In contrast to the scene in the gym, where the crowd, the noise and smell of wintergreen can set your head swimming, all is quiet and serene in this dressing room. Three, maybe four runners, a few reporters, an official or two, Jock Semple checking in every few moments—that's all you see. Occasionally, an ordinary runner wanders in mistakenly through the door. When Jock Semple gets to him, the runner always leaves much quicker than when he came in.

Some have criticized the concept of a special dressing room for the star athletes. It seems shallow criticism. Subjecting the few world-class marathoners in the field, many of whom have traveled thousands of miles to compete, to the queues and din of the main gymnasium would be both nonsensical and in bad taste. Looking at it another way, assuming Frank Shorter had run at Boston, could you imagine a less appropriate build-up to his race than having to dress in the gym, enduring several hundred congratulatory handshakes and perhaps even some requests for an autograph?

The first person I met on entering was Pat McMahon, relegated to an official's role by a nagging hip injury. To look at him, Pat appeared as lean and fit as he had been two years earlier, when he finished second.

Over in a far corner of the dressing room, being interviewed by three reporters, was the West German champion, Lutz Philipp.

Over in another part of the room a runner in the blue warmup suit of Finland was seated on a bench between two rows of lockers, being interviewed in Finnish by a pair of reporters. Slightly built, with a boyish face and light blond hair falling over his ears, he looked more like a member of a rock group than a marathon runner. It was Olavi Suomalainen, the defending champion.

Away from the reporters John Vitale of Connecticut sat on a bench beside a young runner in a red warmup suit. I introduced myself to Vitale and we talked briefly. He then introduced the runner in red: "This is Tom Fleming."

Jon Anderson was seated on the floor, back against the wall, in the crowded corridor in front of the gym. Like many other runners, he was killing time until the start. He wore green shorts and a white mesh shirt, the letters OTC, for Oregon Track Club, stitched on the front.

The previous evening I had systematically read through the entry list of 1500 names to pick out runners I knew. The exercise had taken 20 minutes. But even that didn't prepare me for the visual spectacle I now saw before me. The crush of runners at the starting line stretched so far back I couldn't see the end. From front to back the pack must have occupied a city block, maybe more. The day was sunny and warm. Hundreds of spectators in summer clothes crowded the roadside to get a good view of the start.

At high noon all grew still. Then the crack of a pistol sent them off, an endless sea of bobbing heads as I watched out an open window of the bus, no legs or arms, just heads, moving down to the corner a block away and then right towards Boston, in the general direction of exhaustion.

Undaunted, the bus driver plunged his vehicle into the stream of runners, steering down the left side of the road, horn blaring constantly. The effect on the runners was predictable. They moved out of our way reluctantly and hurled abusive language at us. Some pounded violently on the side of our vehicle as we struggled by, exhaust pipe emitting fumes. Horn blaring, runners shouting, fists pounding—the scene was pure tragi-comedy and I didn't know whether to laugh or cry.

I don't know how long we struggled through the crowd this way. It must have been at least two miles. We were, however, getting a superb cross-sectional view of the field. At first, when we had started, we had passed heavy, struggling men, one of whom had pulled out of the race, looking exhausted, before a mile was up. But as we moved through, the fitter and more proficient the runners appeared. It was like looking at a living evolutionary chart on the road runner, going from the slowest and most awkward to the fastest, most developed.

We passed a group including Jon Anderson, John Vitale, England's Dave Holt and the US Olympian, Jeff Galloway. And then we were up to the leaders, Suomalainen and another Finn, Bob Moore

of Canada, a Korean, Bernard Plain of Wales and Lutz Philipp. I studied Philipp closely as we drove by. He glanced constantly around his group, studying faces, licking his lips. He seemed apprehensive.

We shot ahead towards Framingham, stopping at the first checkpoint—6.72 miles—and descending from the bus. The temperature was 77 degrees and felt hotter. The voice on a spectator's transistor radio was saying, "It's going to be very pleasant for the spectators but warm for the runners." Obviously a day for caution and planning, I thought.

A few minutes later the crowd became agitated. The leaders were coming. And powering along in front was Philipp, at least 100 yards ahead of everyone else. I tried, and failed, to understand how he could have gained such a lead since we'd last seen him only a mile or so earlier.

The stronger runners from the two packs we had seen earlier had now massed together. They controlled their speed at this stage, ignoring the fleeing Philipp.

We jumped back on the bus and moved on. The time for spectacle was over; the struggle had begun.

In 1964, less than a decade ago, the field at Boston exceeded 300 runners for the first time. Four years later it had doubled. This year, despite a 3½-hour time limit, it had swelled to almost 1400.

On the press bus past Framingham, Jock Semple, the always colorful, often controversial overseer of the Boston marathon, was giving an interview to Sandra Burton of *Time* magazine.

"It's just got too big," he was saying in his thick Scottish accent. "A hundred a day—that's the number of entries I was gettin' since the beginnin' of April. I've gone through 5000 pieces of mail since the New Year."

"So what's the answer?" she asked, "lower the standard?"

"No, I don't want to cut out the 3½-hour men because they're the ones who make the race as far as I'm concerned. What I want to do is cut out the cheats and liars. I'm in favor of makin' them qualify in a marathon only and to have them send in a photostat of the results with their entry. If these guys can spend \$100-\$300 to come here for a race, surely to God they can spend a dime to make a photostat. We still wouldn't be able to check everybody out but it would be better than it is now."

"I used to do it for the running game," Semple continued, explaining his work on the race, "but I'm not doing it for the running game anymore when we have all these guys who can't do four hours, let along 3½ hours. You'll see

some very strange people out there. They'll be coming in at six o'clock, seven o'clock tonight. For cripes sake, I once walked the entire course in 4½ hours."

She laughed.

"To be honest with ya, I'd be much happier if, when the race started, many of these guys would run in the other direction, to Worcester."

Approaching midway in the race, it became apparent that if Philipp had it in mind to pull a Frank Shorter on the field, to get away and stay away, he wasn't going to succeed. Gradually, Tom Fleming moved closer, the other main contenders never far behind him. At 12 miles Fleming caught Philipp and they passed the large clock in Wellesley, 13.4 miles, in 1:08:26. Philipp soon weakened, leaving Fleming alone out in front, though not for long.

We lagged back a little then and Jon Anderson, now dropping Plain, came up beside us. I shouted encouragement to him out an open window. He was 75 yards back of the lead with Philipp in between.

"How's Fleming doing?" he asked.

"He's still up there," I said. "But this man ahead (Philipp) is dying."

"I know," he said. And I noticed he seemed as alert as he had been when I had spoken to him back in Hopkinton. Alert and calculating.

Almost immediately he spoke again, "Fleming's fallen back, hasn't he?"

Surprised, I looked up the road. "Yes, he has," I said. Fleming, I learned later, had suffered a stitch.

Some 17 miles into the Boston marathon, there is a 90-degree right-hand turn. Almost immediately after the turn the road slices off to the left, like an errant golf ball, into the first of the dramatically named Heartbreak Hills.

At the turn it was Suomalainen leading, his stride still light, his body showing no signs of perspiration despite the temperature. Twenty-five yards behind him was Anderson, hair matted down, vest soaked and clinging to his body.

They started up the hill. The Finn moved up smoothly, showing no strain. I didn't know whether it was strength or style that made him look so controlled. By contrast, the taller, heavier-stepping Anderson seemed to fight up the hill, head down, arms swinging forcefully from his bony shoulders. As he neared the crest of the hill his stride wound slowly down. Coming down the slope on the other side, he ran for several yards with his hands on his hips, recuperating.

"Catch him gradually, Jon," I yelled out the window at him as we drove

past. "Just play it cool. There's still a long way to go."

He nodded but my advice wasn't needed. Moments later Suomalainen almost came to a halt, clutching grotesquely at his neck and right side, the victim of a severe stitch. In seconds Anderson was by and on his way to victory.

In a very real sense a runner with an insurmountable lead in the late stages of a major marathon race, like Boston, has emerged into a world that is above human frailties. He is the victor, conquering hero in the most demanding and thus perhaps the most heroic of all athletic contests.

The race being important enough, his achievement verges on establishing him as one of the world's most durable men, verges therefore on immortality itself. And he knows it. Consciously or subconsciously he knows it. The multitudes cheer him. The flush of victory washes him free, or nearly so, of his pain. It is as if by outdistancing his competitors he has outdistanced fatigue itself. His body now seems to function as tirelessly as a machine. He need not sprint in. That would be pointless. He has won. He has mastered the opposition. He has mastered himself. He has mastered the distance. That is the ultimate. No other gesture is necessary.

Jon Anderson seemed to be into that state now as he ran the final miles; he showed no sign of fatigue. The roads were now lined continually with people. As he ran, their applause clattered around him, racing alongside him towards the end. At one point an impromptu brass band played "Hail To The Chief" as he ran by.

The press bus dashed ahead to the finish, discharging us a few feet from the line. Thousands had gathered and they stood everywhere except on the road itself. Even the area immediately past the finish line, normally kept clear, seemed a solid wall of people. Most of them were photographers.

Moments later Jon Anderson swung around the corner and came striding towards the finish, only the third American since the Second World War to win the race. He ran right up to the line, neither speeding up nor slowing, and wheeled almost immediately, jogging back up the road with his hands high in the air. He was almost back to the corner when the next runner came into view. It was Tom Fleming.

So one after the other the runners came in, at different speeds and degrees of fatigue, and the huge crowd welcomed

each one with respectful if not overwhelming applause. The only time the people hollered and clamored and came out of themselves was when one runner, far back, staged a flat-out, showy sprint finish. Well, as the man said, that's show-biz.

I watched the runners coming in for a long time before I realized something was missing. At first I couldn't determine what it was. Then it struck me: There was no public address system. I looked around the crowd and I could see no one who carried an entry list identifying the runners. The spectacle was a constant repetition of runners finishing and respectful applause. It all seemed so anonymous, so impersonal.

Oh, well, I thought, the runners know who they are.

NUMBER ONE: JON ANDERSON

It was the first marathon Jon Anderson had taken seriously. He had run three others, but they had been local ones in his family home in Oregon or his temporary home near San Francisco.

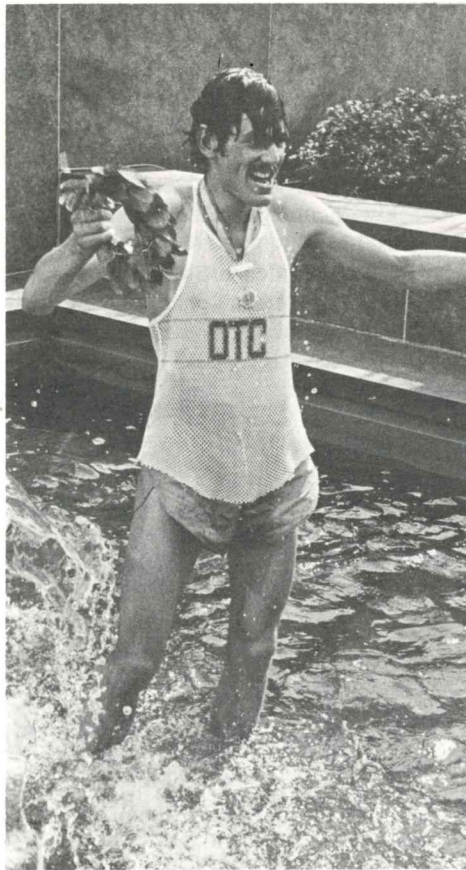
This was Boston, maybe the biggest of all next to the Olympics. Jon was being cautious about it.

"I went back there with the idea of breaking 2:20 and shooting for first American," he said later. "When I saw the heat I said, 'Oh my God. Maybe 2:25 will be better to shoot for.'"

The temperature was between 75 and 80. Anderson was concerned about that, and his inexperience, and the hills that would come between 17 and 20 miles. He decided to tag along with Jeff Galloway, his teammate in the Olympics at 10,000 meters but a more seasoned road racer.

"My plan was to follow Galloway," Jon said, "because it always seemed that he started in the back in past races and passed me three-quarters of the way through. We didn't talk about running together, but Jeff sort of knew I was going to run with him."

They stayed back, off the pace. Lutz Philipp of Germany took off by himself. A second group, including defending champion Olavi Suomalainen of Finland, followed him. A ways farther back were the top four American hopefuls—Anderson and Galloway, John Vitale and Tom Fleming.



Anderson took another hint from Galloway. At the Olympic Trials last July, Jeff had plunged into the steeplechase water hole just before the 10,000, then finished a surprisingly easy second. It was a 95-degree day.

That convinced Anderson. "You've gotta have that water on your skin. I really think that may be more important than drinking it. It's the removal of the heat." He and Galloway doused themselves with water from the start.

Gradually the group of four pulled up on the leaders. Anderson was strongest as they went into the hills.

"I'd read about Heartbreak Hill," he said, "and I had it in my head that it was going to be steep and murderous. But it's not steep and it's not long. It's just where it is (at about 20 miles)."

Only Suomalainen was still ahead of him when they got to the last of the hills.

"I felt I was slowly creeping up on him, very slowly," Anderson recalled. "I was just sort of daydreaming and concentrating on myself. All of a sudden, there he was. I passed him and it was like he was standing still. I knew he was shot. Someone said he sort of waved me on, but I didn't see that.

"As soon as I passed him, things went through my head, and I started choking up. I fought back a few tears before getting back in control mentally. I get

Jon Anderson follows his first impulse after finishing—to cool off.

really emotional about these things. It's weird."

His voice cracked a bit and his eyes glistened when he talked about this moment. It was a week later and he was sitting in his sparsely furnished apartment above a garage in San Mateo, Calif.

San Mateo, part of the suburban sprawl down the San Francisco peninsula, had turned out its second Boston marathon champion in three years.

Two years before, another Olympic 10,000 veteran and marathon novice, Alvaro Mejia, had won at Boston. He had been living a few blocks from where Anderson now lives.

It isn't coincidence that they should become road racers here, both have said. "San Francisco and New England are *the* road running centers of the country," in Anderson's view. San Francisco area road races are so available and so competitive, that no distance runner can avoid them. Road running leads inevitably to marathoning, and for marathoners all roads lead to Boston.

When Mejia was interviewed two years ago (July 71 *RW*), he was worried about the job he didn't have. He could find nothing in the US but heavy physical work that didn't go well with running. He'd quit just before Boston and was going home to Colombia to work as an athletic official for the government.

Anderson's work has been a problem, too. He is a conscientious objector. As an alternative to military duty, the Selective Service System has him washing dishes in a hospital. He is on his feet from six in the morning until three in the afternoon, in between workouts.

Mejia almost backed out of going to Boston a few weeks before. His wife talked him back into it. She said, "No one can call himself a distance runner if he doesn't run the marathon, and no one can call himself a marathoner unless he runs Boston."

Anderson had his own pre-race doubts. He said he'd had the race in mind since the Olympics, "but the problem was *keeping* it in mind. About two or three weeks before the marathon, I just hit a low.

Jon's dad called from Eugene, Ore., the next day. He's the mayor of the running capital, so he naturally runs himself. "He started before I started," Jon said.

“He was one of Bill Bowerman’s first joggers. For awhile, Dad was thinking about a marathon himself, but he doesn’t really have the time to put in the training.”

Jon told his father, “I’m not sure I’m going to go. I’m going to think about it for the next couple of days.”

Mayor Anderson said to Jon, “I’d like to see you go—if nothing else just to run the Boston marathon for the experience.”

“Needless to say,” Jon said, “he was right. I was thinking about it today. Running in front of half a million people in two hours; not many athletes can say they’ve done that.”

Mejia was leaving San Mateo when Anderson moved in. They never met in this area. They were to meet for the first time in Colombia in May, as part of a tour that Mejia had arranged. Jon was packing for the trip.

The hospital had honored him with a banner (“Home of Jon Anderson”) and cake the day he returned. But that same day he’d done his usual number of dishes.

The hospital is generous with leave time for the well-traveled runner. But Selective Service officials aren’t so tolerant. They’re requiring him to make up the time he lost last summer while in Munich. Anderson won’t be through until early fall.

He wishes he could be doing something more “constructive” with his two years. But he isn’t bitter. This is a test of his convictions.

Jon could have signed on with the Army track team after college and spent two years doing nothing but traveling and running. And he wouldn’t have had to make up the “lost time.”

“The first few months on my job were awfully rough on me,” he said. “I was wondering how it was going to go for awhile. But I’ve adjusted. Still, I don’t think I would have made the Olympic team if I hadn’t taken a month off before the Trials.”

He went home to Oregon to train. Although Jon is from Eugene, most of his running has been somewhere else—in New York during college and in California afterwards. But he remains an Oregonian by philosophy. He gets a distant look in his eye when he talks about moving back to Eugene permanently, which he’ll do this fall.

“Eugene has a climate all its own,” Jon said. “It’s something in my blood. It’s not just weather climate. It’s something else....”

His training is pure Bowerman, though the Oregon coach has never worked with Jon directly.

“I follow an easy-hard pattern,” Jon said. “Three days a week are hard. That would be Tuesday, Thursday and Sunday, Sunday being the traditional long run. Tuesday probably is longer intervals on the track, especially from January on, and then Thursday shorter intervals on the track with a long run immediately afterwards.”

Jon saw Coach Bowerman in early March, at Anderson’s wedding. Jon told him he was running Boston and asked, “Do you have any ideas?”

“What kind of track work are you doing?” Bowerman asked.

“Not much.”

“Well, do some 660s,” Bowerman advised.

Anderson said, “I did a few workouts of 660s. Bowerman magic!”

Before Boston, Anderson was running five miles to work every weekday morning. His “easy” afternoons were slow 7-8-mile runs with a series of 110s at the end.

On Sundays, he’d go between 20 and 25 miles. “Three weeks before Boston,” he said, “I did a 30-miler. That was hard. It took about 3:17 (about 6:30 mile pace).” Before he runs another serious marathon, hopefully Fukuoka (Japan) in December, Anderson wants to do two or three 30-milers, “but they will take some getting used to.”

He tolerates the track for the results it gives:

“The track is something you have to go through if you want to be good. And what I gain from my races is well worth the time spent on the track. But I rarely run over a half-mile on the track in an interval workout. I just don’t like to go around in circles that much.”

He trains alone but doesn’t mind that:

“I almost always worked out by myself, ever since high school. When I got to college, what I wanted to do and what the coach had the other guys doing were different things. So I pretty much worked out by myself. The one guy I could have run with wanted to be competitive every time out. That’s not for me. I want to go out and enjoy it.”

Life didn’t take a sudden turnaround for Jon Anderson at 2:16 on Monday, April 16, any more than it had last July when he found himself on the Olympic team.

Exactly a week after Boston, the hot glow of publicity had died. He was back to regular training.

“I think today was the first day I’ve felt really good,” he said as he sat in a beanbag chair and stretched his long legs

and bare feet out across the carpet. “I get it bad in the thighs after a hard road race. It’s the pounding. Right now I feel fine, but there’s some hidden recovery that has to be taken care of yet.”

Jon’s Monday had started shortly after five o’clock, when he’d gotten up to run to the hospital. He’d run home at three (“It takes awhile because I go at about nine-minute pace”) and taken a nap (“Sometimes I’ll sleep for an hour”) before going out for his normal afternoon session.

He was finished running now and had showered and eaten the dinner he’d made himself. His wife Yvonne, a nurse, was at work until 11. Jon was looking forward to being in bed by nine, but he had to meet with one of the last reporters in line.

Jon patiently answered questions that had now grown repetitive and tiresome. He ate leftover victory cake and scratched his cat Jeremy’s neck while talking into a tape recorder.

The interview over, Jon was showing the reporter to the door.

“Oh,” he asked, “I didn’t notice your hardware. What did you get for winning?”

Anderson motioned toward what he called his “running room,” a cluttered extra bedroom with sweats and tee-shirts and shorts draped about, and books piled haphazardly along the walls.

He rummaged through the stacks until he pulled out a white cardboard box. Inside it was a black case, and inside that a medal looking like a small sunflower.

“They tell me it’s solid gold and that this is a diamond,” he said, pointing to the center.

His trophy was in another corner, already starting to collect dust. An olive wreath hung around the neck and was already dry and cracking. “I’m surprised it has stayed green this long,” Jon said.

He said on the way out, “I don’t care much for trophies. I think I’ll give them away for someone to use as race prizes when we move—except maybe the one from Boston.”

NUMBER TWO: TOM FLEMING

BY HUGH SWEENEY

Just before 2:15 Monday, April 16, I called a friend in Boston and told him, “Turn on the radio to a station reporting the marathon, and put the phone next to it. I have to hear how it turns out.”

He thought my request a bit odd, but he did as I asked. That was how I learned that Jon Anderson had been the surprise winner of the Boston marathon and that my friend Tom Fleming was an equally surprising second, a little over a minute back.

I should say Tom was surprising to other people. Not to me, or himself. We thought he could win. I was so sure he would be right up there, I'd already written most of this story. I'd started it two weeks earlier....

Tom Fleming. Consider his recent credentials: January, won the Jersey Shore marathon in 2:19:16, then a week later finished third in a Puerto Rican half-marathon behind only Victor Mora of Colombia and Finland's Olympic steeplechase medalist Tapio Kantanen. Trailing Fleming, the only non-Olympian in the first 11, were Jon Anderson, Jeff Galloway and Lasse Viren.

After that race, Tom ran 20 miles over a certified course in 1:41:27—a 5:04 pace which, if continued, would convert to a 2:12:35 marathon. Tom said he could have gone on at a good pace.

So it seems quite likely that if no one else runs much under 2:16, Fleming will be in there at Boston.

I don't blame the casual reader if he's never heard of Tom. He didn't even rank among the fastest 30 Americans in 1972. The best he had ever done in a national-level meet was ninth in the 1971 Pan-American Trials.

Tom is only 21 years old. He's 6' 0½" tall, 145 pounds and wears size 13 shoes. His legs are large, powerful and very heavily muscled. They almost seem too heavy to be the legs of a good runner.

Tom has been running for less than five years. He graduates from William Paterson College in June, and technically has been a member of the Paterson track team for most of his career. But he lives at home with his parents and trains almost exclusively on his own. No coach has influenced him more than just to provide encouragement. Ever since high school, Tom has been his own runner, training and racing how, when and where he has wanted.

Fleming began to do his steady 100 miles per week in the summer of 1969, just before starting college. He has been up close to 200 on occasion—100 is very low for him now—and at present he hovers around 130.

Until early March this year, Fleming had not planned to run at Boston. His schedule was hectic, since he still had some school work and was student teaching brain-injured children every weekday from 8 a.m. to 3:15 p.m.

I can remember Tom having said he'd never be one of those pre-dawn trainers. But because of his schedule, necessity prevailed. He was on the road every day at 5:30 and at four in the afternoon.

Because of his time problems, Fleming didn't think he'd be able to train hard enough to do well at Boston. And rather than do poorly in an important race Fleming would rather not compete.

But he surprised himself. He could



After Boston, people finally knew who Tom Fleming is.

train at 5:30. Even though he was not doing the mileage he has in the past, his results on the road were so good he got excited about Boston again.

In preparing for Boston, Tom told me several times that he's never been stronger. This shouldn't surprise anyone. He was running 120-150 miles a week. But the odd thing is that Tom is running less this year than he did last year. Last year he was doing 160 a week prior to Boston.

He said, "A lot of people still don't know who Tom Fleming is. After I run at Boston, they all will know."

He matter-of-factly wondered whether he would break 2:15, and he discounted the opposition. "I hope they all come," he said. "The more guys I beat, the better. The only guy I'm worried about is Jeff Galloway. Galloway can really burn those last few miles."

To consider oneself the favorite at Boston might seem like conceit, or aimless boasting, for someone who had never really "done anything" in a big US race. In a way it was. But for years Tom had thought of himself as a marathon runner with national and international ambitions. Now all the training was coming together to produce the results he wanted.

A look at his room at home gives a clue. It contains almost no books other than inspirational track books. On his bookshelves are the track magazines. The pictures on the wall are of Olympic distance runners, and of Fleming himself in various races. Medals and trophies line the room. A box contains running shirts from Germany, Ireland, etc. On the walls are slogans like "Montreal 1976," "2:18: You know what it takes," and "Somewhere in the world, there is someone training when you're not. When you race him, he'll win."

Tom is almost totally wrapped up in his running. He is at once a track fan, who speaks in almost worshipful tones of Emiel Puttemans, Dave Bedford and Steve Prefontaine, and yet one who wants to get so deeply into the game that he too becomes one of the demigods.

When Tom told me he was going to Boston, I almost laughed. But after he mentioned the 20 miles in 1:41 and I'd done a quick calculation in my head, I thought, "By God, he's right. He has arrived already." He could do 2:15, and he could win it.

Tom said he wanted to do well at Boston so he'd finally get a "national reputation." That, I think, is where his motivation comes from now. He wants to be one of the stud road runners everybody else knows of and respects. I think he wants to reach the stage where he doesn't need the medals and pictures to remind himself how good he is.

First it was local reputation he wanted. After Boston, he should have a national reputation. And by 1975 and '76, it will be a world reputation, if things go as he plans.

Tom's success as a runner makes track more enjoyable to him as a fan. He got a tremendous thrill from being able to live and train with Viren and the other Finns while in Puerto Rico.

Finn Olavi Suomalainen, the '72 Boston winner, was a guest at Tom's house the week before this year's race. Tom had met Oli at San Blas. I ran with them one afternoon. Tom was going 10 miles, Oli eight. They both wore sweat suits, but I ran in shorts. For the first four miles, I could barely keep up with their 5:30 pace. Oli turned off to run the last four by himself. Tom and I continued for his last six.

Immediately the pace slipped back to our usual 6:15 miles. "That's enough of that," Tom said. "Now to train normally again. I couldn't give him the psychological edge of going on ahead, but it's crazy to run that fast."

BACK AMONG THE LEGIONS BY JOHN ROMERO

No, kidding, Mom, it was really exciting. Erich Segal was there, expediting. Howard Cosell was there, pontificating. Up in the sky a helicopter flopped around. It had so many cameras poking out the doors it looked like a porcupine.

And down on the ground in sleepy Hopkinton, the Boston marathon was about to start.

You have to understand this about the start of the Boston marathon. It's not really a start. It's a survival lesson. You should train for it by taking a Karate class. If you could file your elbows to a point it would help. And forget trying to swing your arms. Throw punches.

There was this poor guy who owned the house even with the starting line and he had the yard all roped off. He was out there trying to defend his property against 1384 keyed-up runners. "Back of the ropes," he kept shouting. Nobody paid any attention to him.

Jock Semple, the race director, was wandering around the starting line, looking over the runners in front to make sure everybody had a low number. Mr. Semple has a pair of eyes that can pierce concrete at 20 feet. He also has a strong jaw that can snap a man in half.

Mr. Semple spied a Canadian runner skulking about on the fringe of the front row. The guy was wearing a pointed stocking cap, so help me, and his official number was conspicuously missing.

"Agr," growled Mr. Semple, pointing at the Canadian. There was murder in Jock's Scottish eyes and the Canadian knew it. Intelligently, he retired to safer areas.

I was wedged in against the ropes, caught between the field and the guy who was trying to defend his property. But,

I went over to Tom's house the Thursday after Boston. As we jogged along, I was thinking to myself, "A week ago this guy was just Tom Fleming. Now he's the guy who almost won Boston. I'm disillusioned. I always thought the high finishers at Boston were supermen. Guys who had been training at full effort for several years, guys who devoted their lives to running, guys to whom running means everything, who roll up the mileage even though the next important race is two months away.

But as we ran along, I suddenly realized it. Tom Fleming is exactly the type I had been thinking of. He fits the mold.

mercifully, the gun fired. I ducked under the ropes and was off with faint cries of "Back of the ropes" ringing in my dome.

I'll never know whether I ran the first hundred yards of the Boston marathon or was carried. I do know it was hot—but I don't think a lot of guys realized how hot.

Runners went by me so fast I thought they were in a different race. Little guys, big guys, bearded guys, guys with black tennis shoes. I remember thinking this was going to be the fastest race in history or set a new record for casualties.

After the race the wire service stories described the weather as "balmy." You might as well call the North Pole cool, the Atlantic moist, Yul Brynner balding.

I was running in a whole clutch of guys when we reached Ashland, about two miles from the start. I knew we were in trouble when the spectators applauded. You can't applaud with a glass of water in your hand, and what we needed was water—not applause.

Another two or three miles and it was the cotton-mouth brigade. The pack I was running with was kind of weaving from one side of the road to the other. What we would do was look down the right side of the course about 20 yards ahead for anybody holding water, then veer to the left side of the course and take a look down that side. It must have looked funny as hell from overhead. Those guys in the helicopter were probably drinking cold beer.

"Look at that!" I heard a runner behind me yell. Ahead and to the right were three kids with water pistols—just standing there.

I pulled abreast of them. "Shoot,

shoot!" I screamed. One kid got me in the shoulder. My luck, the other two missed.

Around six miles into the race I was really disheartened. There were orange peels all over the ground, left by the runners ahead of me. Since there were several hundred of them by this time, I just knew they had taken every drop of water and every orange in sight. I was right. It was like a 50-foot swath of destructive force cutting across Massachusetts—sucking all moisture from the land.

Finally I saw a little kid holding a cup. Terror filled his eyes as three of us bore down on him. We weren't running the course any more. We were dashing among the spectators like wildmen. Thanks to my superb conditioning program I reached the kid first, snatched the cup and took a drink of water. I handed it behind me and felt it grabbed from my hand. I heard grunts and curses.

I pounded on, all my senses intent on one thing—liquid. The guys around me looked the same way. We weren't runners in a marathon. We were desperate animals foraging for water. The spectators were the prey.

"Welcome to Wellesley," somebody yelled at us. "The temperature is 76 and climbing." Little psychological boosts like that helped a lot.

An idea reached my brain as I wam-



bled through Wellesley. I would run into the next gas station I saw and drink from the hose. Then I would play the hose over my hot and steaming body and into my jock and just go crazy. I was hallucinating. It was great!

I don't know to this day how they put water in a car in Massachusetts. The hoses are not on the pump islands. I don't know where they are. I couldn't believe it. My dreams crumbled.

Up ahead I saw a strange sight. The line of runners seemed to have a permanent "V" to the right side of the road. When I drew closer I saw a guy with a hose, squirting it on the runners. Everybody was running into his yard.

The water was icy when it hit and I think my eyes popped out a couple of inches—but it was wonderful. "Get the back, get the back," I yelled, jogging in place like a maniac and pointing over my shoulder. I took off my hat and half filled it, then put it back on my head. Ah, luxury.

I think it took about a mile for the sun to dry me off and I was looking around with wild eyes again. A Gatorade stand appeared and I stopped and drank a cup, then pushed on. There was more water around now but the runners were still edgy.

Alongside of me a runner grabbed a canteen from a bystander and began to

pour it over his head. "That's lemonade," somebody shouted. The runner dropped the canteen and kept going.

"Who are you, the champ?" another runner snarled at him. "Why can't you pass it back?"

Somewhere before the start of the Newton Hills I stopped to walk, heart pounding and face dripping sweat. At that moment I knew how it must have been for the early settlers crossing Death Valley. A lot of guys passed me. Finally one called for me to bend over and put my head down around my knees. I tried it and felt better and eventually started running again.

I pushed hard up a small hill and my heart began to pound around in my chest like it was trying to escape. I stopped and walked again. After a few minutes I heard this wild cheering behind me. It came closer, like it was walking up my back.

I thought it must be a girl runner. The crowds had been giving them great receptions. I started to jog again and a roar broke from the assembled voice boxes in front of me. I looked to my right. Oh Lord, Erich Segal. And he looked worse than I did. They were cheering his every footfall.

"I'll never know whether I ran the first hundred yards at Boston or was carried," says John Romero.

As I watched in horror he passed me—fists clenched, chin jutting, shorts halfway to his chest—the great author himself engaged in hand-to-hand combat with the enemy. I didn't even know Erich Segal but it made me mad that he would pass me. So I picked up my pace and passed him back. Surprisingly, I seemed to feel better going faster so I kept it up. I started to pass guys who had passed me when I was walking.

I made fair time after that, but it was like running through a movie set. Scores of guys were walking, shoulders down, heads lolling. The guys who were running reminded of old war films of refugees shuffling in long lines all over Europe when Hitler bombed the hell out of them.

About five miles from the finish I passed the guy who had given me the good advice and I thanked him. He gave me a very sick smile.

A girl child about three offered me a cup of water. She looked so cute I stopped dead, took the cup gently and drank, then handed it back and said "Thank you." The fans applauded and I stumbled off again.

The people really packed the course in Brookline and Boston, yelling and shouting encouragement and offering water and ice. Several people called my name. One guy, seeing my Las Vegas Track Club shirt, asked me what the odds were that I would finish. I made a double zero with my fingers.

I kept going, down Beacon Street, striding forever in an endless corridor of humanity, running on protesting legs. I veered around the final right turn and struggled up an incline, made a left turn and found myself looking downhill to the finish line.

My God, I could see it. That last yellow line. I was running alone, sandwiched between groups of runners far ahead and behind. I tried to look good in that last 200 yards but it was ridiculous.

My number, soggy from repeated sloshings, was hanging limply. I thought how awful it would be to run so far and then not be an official finisher because the scorekeeper couldn't read my number. So I fussed around with it and patted it into position and kept on running.

As I came across the finish line I heard a guy say, "Number 534 is 441st." I was okay until then. But hearing that—knowing I had finished—was like snapping out of a trance. The fatigue flowed through me and I staggered around dumbly. I couldn't seem to control my eyes.

"It's all over," a girl told me, reaching out.

"No," I told her, "it's just started."



*The country's best
high school runners
meet each June in
Sacramento for the
Golden West
Invitational*

by Marc Bloom

The Golden West Invitational track meet is a scholastic version of the Olympic Games—without the politics.

As the 14th annual meet prepares for its unveiling in Sacramento, Calif., on June 16, a field of teenage athletes diverse in culture, background and training awaits an event that is unpretentious, warm and non-partisan. The 100 or so high school seniors, representing at least 30 states, received invitations on the basis of outstanding performances in recognized meets—not because of reputation, publicity or overzealous coaches.

Upon arrival at the Sacramento State University dormitories a few days prior to the meet, athletes and coaches



PREPS' GOLDEN OPPORTUNITY

find an atmosphere of camaraderie similar to that of an Olympic Village. There is a blend of accents and anecdotes. Jerseys are exchanged. Techniques are discussed over ping pong and pool. A bus excursion to San Francisco solidifies the friendships.

It is a simple week to climax a hectic spring. The 20-30 Club of Sacramento, a group of enterprising businessmen, makes the meet possible. Well-organized and hard-working, the club conducts the meet without gimmickry or fanfare. No exaggerated publicity or extraordinary promotion. No underwriting from educational institutions or million-dollar corporations. Just grass roots support from the home folk and a chance for some talented kids from around the nation to participate in 17 track and field events.

The meet initially was in the Los Angeles area where it was held until 1965. Then it moved to Sacramento, where Reg-

gie Young and his selection committee have developed a network of regional correspondents—headed by Jack Shepard of *Track & Field News*. These men provide current data on prospective candidates. In 1966 a correspondent, then a college student, was phoned at 3 a.m. (Eastern time) by a meet official seeking verification of performances. The student, who had three final examinations that day, recalls, "My parents were pretty upset, but I was happy to go through my files to help the meet out. And I passed the exams."

To assure the finest caliber of competition, the Golden West does not close its fields in May, which would be convenient for the administration. Athletes have even been accepted the day before the meet as new information was revealed and rejections (injuries, etc.) were received. Last year a Long Island long jumper was accepted 36 hours prior to the meet. A

series of cross-country phone calls notified the athlete, secured his plane fare and ticket and enabled him to arrive in Sacramento in time to get a good night's rest for his big day.

A review of the meet's short history would read like a who's who in track and field. Many Golden West competitors have subsequently gained collegiate titles, world records and Olympic championships.

Just two years ago, Randy Williams won the long jump and Dwight Stones won the high jump. Four years ago, Rod Milburn captured the high hurdles. Rey Robinson took the sprints in 1970. Bob Beamon was the triple jump gold medalist in '65. Jim Ryun, Marty Liquori and Steve Prefontaine all have won mile titles. (Ryun doubled to a two-mile victory, too.)

The lengths to which athletes will go to take advantage of their invitation is testimony to the meet's reputation and importance. Since transportation costs are

LEFT: The '72 Golden West two-mile. Leaders are (l-r) Nick Ellis, Kevin McCarey (trailing), Jim Salcido and Terry Cotton. Salcido won in 8:54.2. (Steve Sutton)

not provided, a heavy financial burden is sometimes placed on an entrant, especially those from the East with \$300 plane fares. Often dances, raffles and candy sales are held to raise funds, and donations are sought from private citizens and civic groups. Athletes flying "stand-by" have been known to spend a full 24 hours in airports and in flight from coast to coast.

The meet has had its problems. Held on the third Saturday of June, it invariably conflicts with either the NCAA or AAU meets. Therefore, it does not receive the public attention and recognition it deserves. Crowds have been relatively sparse, barely reaching 5000. Segments of the media also are preoccupied with other events. A national magazine rejected a freelance writer's query to cover the meet because "we never run two track meets in the same issue." The publication was committed to the NCAA.

Nevertheless, word-of-mouth has fil-

GOLDEN WEST INVITATIONAL RECORDS			
100	9.3	Willie McGee (Hattiesburg, Miss)	1969
220	20.8	Carl McCullough (Sacramento, Calif)	1972
440	46.6	Ronnie Ray (Newport News, Va)	1972
880	1:49.5	John Drew (Houston, Tex)	1968
Mile	4:04.3	Jim Ryun (Wichita, Kans)	1965
2 miles	8:54.0	Mike Keogh (Newark, NJ)	1970
120 hurdles	13.6	Allen Misher (Houston, Tex)	1972
180 hurdles	18.3	Bill Tipton (Pontiac, Mich)	1967
330 hurdles	36.3	Harold Schwab (Centereach, NY)	1972

tered into the tiny hamlets and big cities that dwell on scholastic sports, notably track. Coaches optimistically place the Golden West on their outdoor schedules. Athletes point to it. It is their ultimate scholastic goal. It is their Olympics. It is the showcase for places like Opelousas, La., whose high school was honored last year for having sent five athletes to the meet in the last six years.

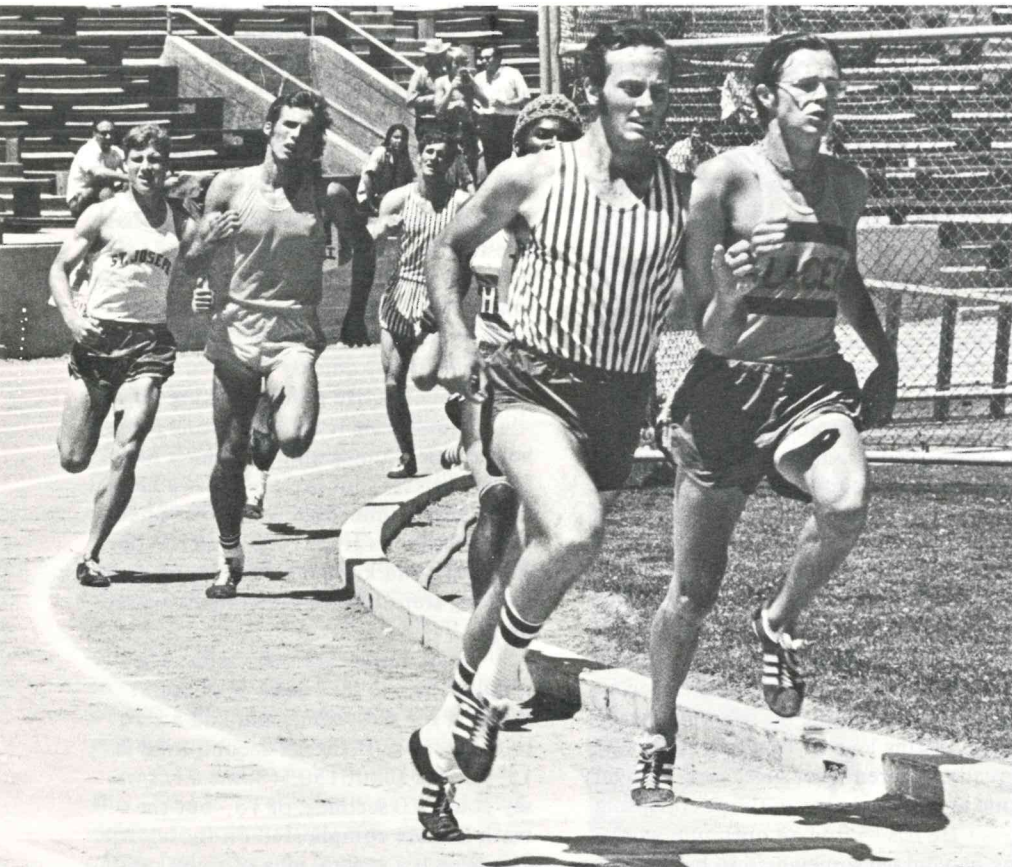
Another first last year was the staging of the meet in the afternoon. A hot sun coated Hughes Stadium with near 100-degree temperatures. Some competitors, having experienced a spring of chilled rain, could not cope with the heat. But most everyone cooled off after the meet by dashing spontaneously into the

dormitory pool for an informal game of water polo.

An "international" flavor pervades the meet itself. Many of the differences that exist among countries also exist among states in the diversified land. Individuals of every description are clothed in their distinctive uniforms. State and regional pride are motivating factors. Is it another win for California and the West; or for New York and the East; or for Florida and the rising South; or Kansas and the Plains? Introduced from the Bahamas and Hawaii, from Kokomo, Ind., and New York City, from Baytown, Tex., and Torrington, Wyo., these formidable foes compete in the true spirit of amateur athletics.

Bold predictions for this year's meet would be premature. But certain patterns indicate the spotlight might fall on the distance races. A few years ago 4:12 (mile) and 9:10 (two-mile) would have almost definitely earned a youngster an invitation. Now, 4:05 and nine-flat might be the cutoffs as young distance talent continues to progress at a startling rate.

But significance in the meet lies not in the time or height or distance; not even in the recipient of the gold medal. The value is that the athletes are there—digesting life styles, recognizing similarities and understanding differences among themselves. It is a worthwhile adjunct to their high school education.



Last year's top prep half-miler, Dale Scott (striped shirt) overtakes Ron Hyatt with 300 yards to go. Scott won by almost two seconds with 1:49.6. (Steve Sutton photo)



by Joe Henderson

RUN TO YOUR OWN BEST BEAT



Heart rates offer a personal, reliable way to monitor training loads and effects.

How fast to go to get fit, and for how long. Before you can answer that, you first of all have to define the kind of fitness you're looking for—the general running type or the specific racing type. The methods and standards are different for each.

And even after you've made that distinction, you have to realize that fitness is an individual and a changing matter. How fast and how far are things you have to decide for yourself, and adjust day to day—even minute to minute. No coach can tell you precisely what is right, nor can any schedule or stopwatch that doesn't adjust to personal variables.

Perhaps the best answer is in your heart. Listen to your own pulse. It may be the best pacer you have.

The value of pulse-rate checks as a training guide is little appreciated. Only one aspect of it gets much attention. That is the resting rate. There are three others which all may be more important than how slowly the heart thuds along when it's relaxing. The others are maximum rate, training rate and recovery time. Training works on all four.

● **Resting**— This is an important but often overrated factor. Fit endurance runners tend to have low resting heart rates, often down in the 40s or even the 30s. But it doesn't automatically follow that the best runners are the ones with the lowest pulse counts, or that all the fittest runners have slow beats. Jim Ryun reportedly had a resting rate in the 60s and sometimes the low 70s (72 is considered normal) when he was setting world mile records.

Dr. George Sheehan says the main benefit of resting pulse may be as a gauge of excessive stress. He says when the rate is 10-15 beats above one's own norm, overwork is suspected. Reduction in amount or intensity is advised.

"Shane Gould (Australia's gold

medal swimmer) runs a normal pulse in the 30s," says cardiologist Sheehan. "If it is 45 or more when she reports for practice, her coaches assume she is over-trained."

● **Maximum**—This is the point where heart rate peaks out. The higher this peak is, theoretically, the more effort an individual can squeeze from his system because he has more blood rushing through it.

Age has a lot to do with maximum rate. The booklet *Running After Forty* reports that tests in Sweden indicate "a man's maximum heart rate at age 25 is about 200 beats per minute. By age 40, it drops to 182 beats, and goes down to 153 beats by the time he reaches 65. Maximum heart rate is a key because it controls the oxygen that pumps through a racing body. The faster a man goes, the more he needs. But the older he grows, the less he gets."

As a general rule, George Sheehan says, runners younger than 25 will have maximum rates of about 200. After 25, they drop by about one beat a year.

● **Exercising**—"Besides having low resting rates," physiologist E. C. Frederick wrote in the February issue feature on physical testing, "the runner's heart can beat faster for longer periods of time... It is also significant to note that due to increased cardio-respiratory efficiency, the trained distance runner can perform the same amount of work at a much lower heart rate than the untrained individual. This all adds up to an increased capacity to do work, which is the definition of fitness."

A runner can't get any training effect without pushing his heart rate well above resting levels. That's obvious. It's equally apparent that he can't go for very long at his maximum without collapsing.

He has to find an optimum working percentage somewhere in between the

two extremes. What this percentage is depends on what he wants from his running—general running fitness or specific racing fitness (which in turn can be subdivided into short, middle or long distances). Each type makes its own heart demands. More on this later.

● **Recovery**—Training teaches the heart to put on its brakes as soon as exercise stops, and to return to normal quite quickly.

George Sheehan feels, "The most important pulse determination is the length of time it takes to return to the resting rate after exercise."

The Harvard Step Test (*News and Views*, March 73) is an indicator of fitness based on heart rate recovery. In the April *RW*, fitness instructor Sid Toabe tells of two-mile run testing he does. He says the run should be at a steady 150-160 beats per minute, and that the heart rate should return to below 100 within two minutes after stopping.

If a runner, regardless of type, has a resting rate below the normal of 72, if he can confidently push it up to his maximum, if he exercises regularly at least midway between the low and high, and if the rate slows quickly afterwards, there's an effective pump working inside.

Monitoring it and regulating it may be the best training guide a runner has. It isn't perfect, but everyone has a heart and it reacts immediately and personally to the loads it's given. Running to your own beat, and knowing what it means, are long steps toward individualizing running.

Spot checks are sufficient. The simplest way to take pulse is to count the beat for six seconds and add a zero to the results. If the six-second total is 15, pulse is about 150. (Some advisors say count 10 seconds, or 15, but the math is more complicated on those. All you need is a general idea of pulse rate.)

Before too long, it's possible almost to "feel" pulse without stopping to take it. It relates closely to breathing and effort, and you get to know which rates go with signs.

Racing, of necessity, pushes heart rates toward their peak. So it figures that a great deal of training must be done at levels approximating those found in the race. If, for instance, a half-mile takes a constant beat of 180 per minute, the runner has to be trained to handle that.

This rate is at least 90% of maximum. Efforts in this range are difficult, and they tend to be anaerobic. They lead to oxygen debt.

Going into oxygen debt is only required of racers. But there is no physical reason why fitness runners ever need to do it. They get just as much benefit, probably more, by never approaching maximum stress, or more than perhaps 75-80% of pulse peak.

There is, however, a certain minimum standard all runners must pass before running will do them any good. It is agreed among exercise physiologists that this base level exists, but there is less agreement as to what it is.

In the February *RW*, Tony Sucec quoted a study which concluded, "Running at a pace that requires a heart rate of only 130 beats per minute will not improve heart function or oxygen supply. Therefore, steady running must be at a faster rate."

Sid Toabe concurs. He says, "One especially important point concerning endurance training is that to benefit from the running, you must run at a speed which will bring your heart rate up to at least 140 beats per minute.... Jogging long distances at a heart rate of 120-139 may be relaxing and enjoyable, but just remember you are getting little or no benefit from this type of training."

However, one of Europe's leading sports doctors, Ernst van Aaken, takes an entirely different view. He says pulse rates during endurance training must not exceed 130. According to van Aaken, "at a pulse frequency of approximately 130, the organism absorbs a maximum quantity of oxygen at a minimum breathing volume." He quotes a study by Bruno Balke, a noted exercise physiologist working in the US, to support his claim. Balke said the fatigue product lactic acid only begins accumulating beyond a pulse rate of 120-130. Lactic acid is produced when runners are operating anaerobically.

Van Aaken points out that while this 120-130 level is fairly constant from person to person, fitter runners can go much faster than unfit ones while the

heart is loafing along at this rate. One runner might go six minutes a mile with a 130 heart beat, while another may only go nine minutes.

Instead of looking at pulse rate per se, it may be better to talk in terms of *percentages of maximum*. As noted, maximum rates drop steadily with age. A 130 heart rate for a 25-year-old would be a much lower percentage than for a 60-year-old—65% compared to 80%-plus, if it's true that peak counts drop by one beat a year.

Jack Wilmore, exercise physiologist at the University of California in Davis, writes:

"From the results of previous studies, it appears that you can obtain a substantial 'conditioning effect' by exercising at a level which is comfortably between 60 and 80% of your capacity. Exercising at a level below 60% results in little, if any, conditioning, and above 80% the gains are small relative to the level of work you are performing."

Wilmore says, "Most racers are forced to exercise or train at a level above

80% of their capacity. However, this is necessary for them to make those small, seemingly insignificant improvements, which often make the difference between success and failure in the athletic world."

Wilmore oversees a large adult fitness program at Davis. He tells runners there to run at 75% of their own treadmill determined maximums.

"You can easily monitor your heart rate," Wilmore says, "by taking your pulse periodically during the exercise session and then adjusting your intensity to bring your heart rate either up or down to the 75% level."

Using Wilmore's standards, few fitness runners would ever train at rates higher than 150, and nearly everyone would get benefit from rates as low as 120 (60% of 200).

Dr. Samuel Fox, president of the American College of Cardiology, has devised a rule of thumb for determining the highest heart rate at which a fitness-oriented runner should normally train. He simply subtracts age from 170. In practice, a 20-year-old can safely go to 150, a 40-year-old to 130, a 60-year-old to 110.

Whatever the figures, the point is that each runner listens to the voices inside him.

Heart rates are responses are personal matters. One's own beat is a good guide to effort. (Beinhorn)



Tracing the heart patterns of runner Ron Daws under racing conditions



Daws and his device. (Beinhorn)

could be wound up to give an extra kick at 20 miles, and wished they could obtain something similar for their own use.

Now that the results are in, the truth can be told. The mysterious-looking black box with its attached wires was actually a miniature electrocardiograph (EKG) recorder, worn by Minnesotan Ron Daws as part of a scientific experiment conducted by the Institute of Health Research at Pacific Medical Center in San Francisco.

In my capacity of doctor-physiologist at the Institute, I supervised the cardiac monitoring and biochemical testing. However, the original impetus for this experiment came from my husband, Dan Ulyot, a heart surgeon and fun-runner. He was impressed by the fast pace maintained by sub-2:30 marathoners and speculated that the load on the heart during an actual competition must be enormous, enough to strain any "normal" heart (as judged by conventional standards).

More specifically, in Dan's words, "My interest was whether the trained runner might show electrocardiographic signs of ischemia (lack of sufficient blood flow to the heart itself) during severe exertion such as marathon running. The EKG changes seen in coronary patients during exercise EKG (treadmill) tests are detected within a few minutes, usually when a near-maximal heart rate is achieved."

This, Dan says, "reflects a situation in which the demand for oxygen by the heart muscle is not met by the blood flow to the heart because of narrowing of the

gists have studied the behavior of the heart during moderately long treadmill runs at sub-2:30 marathon pace, we believed that the stress of competition and the longer run would demand a greater effort than a treadmill experiment. It might therefore give significantly different results.

The guinea pig for this experiment had to be a fast marathoner who would agree to run hard—hopefully at full pace—in the interest of science rather than glory, since he would be handicapped by the monitoring equipment.

We were fortunate enough to enlist the services of 1968 Olympian Daws, who was persuaded to leave the grim and wintry weather of Minnesota to come run in sunny California for a few days. Unfortunately, it didn't work out quite that way in the end, since the Minnesota spring thaw started in February this year, while the San Francisco area suffered an unprecedented rainy spell which made pre-marathon workouts very soggy and chilly.

The unexpected weather was in keeping with the rest of the experiment, no part of which went exactly as planned. Rule number one for researchers should be to remain flexible.

Obtaining suitable monitoring equipment was far more complicated than we had anticipated. The original thought was to use a small, battery-powered, portable EKG broadcasting unit about the size of a cigarette case. This system, called telemetry, has been used fairly successfully to monitor sprinters on a track, but suffers from two drawbacks:

MONITORING A MARATHONER

by Joan Ulyot, M.D.

Joan Ulyot, a runner for just two years, regularly enters local road races.

Many participants in a recent California marathon were startled to be lapped by what appeared to be a wind-up runner, wearing on his back a small black box adorned with a large key and numerous wires. Some people grumbled that it was "no fair to be outrun by a robot." Others wondered if this was some device that

coronary arteries by atherosclerosis. The questions raised is: Can an athlete push himself to the point where the demands of his heart muscle exceed the capacity of his own (presumably normal) coronary circulation?"

Since the Institute of Health Research (IHR) is involved in defining precisely what constitutes "normal" and "supernormal" physiology and body chemistry, we decided to try to measure both the heart rate and the adequacy of blood flow to the heart during a marathon, using recently developed compact EKG equipment. Although exercise physiolo-

First, the range is very short, only about 100 yards, while the receiving equipment requires a 220-volt outlet, and thus cannot be carried along in a car.

Second, the muscular interference with the EKG signals is enormous, even when patients at bed rest are monitored in this way.

So we next considered using a portable "Holter monitor," a self-contained unit which records EKG signals on a 12-hour magnetic tape for later play-back. A 10-minute trial run on a treadmill with this bulky contraption (3 x 6 x 8 inches, several pounds) convinced me that to car-

ry it for 26 miles would be idiotic as well as highly uncomfortable. After toying with the idea of carrying it on a bicycle and using special long chest leads to our runner, we were relieved to learn of the existence of a similar but much smaller unit (3 x 5 x 1½ inches, one pound) which could still record continuously for up to four hours.

This was obviously exactly what we needed, but our budget was too small to allow us to purchase the unit (\$2500), and we couldn't borrow either of the two which had been sold in northern California. IHR eventually contacted the manufacturer in Los Angeles, who graciously agreed to loan us a monitor for the race, and promised to send it up by Wednesday before the race so we could try it out in advance.

On Tuesday Ron Daws arrived right on schedule, but there was no little black box waiting for us at the lab the next day. After many frantic phone calls to the elusive sales representative in L.A. over the next few days, we were told that IHR could rent the monitor, not borrow it, and would have to fly a technician down to L.A. to pick it up. On these terms, we finally got possession of the crucial EKG recorder on Saturday evening before the race.

In the meantime we had not been idle. Our visiting Minnesotan had been welcomed to California by heavy rain, which persisted through most of the week. Ron was determined to explore the Bay Area running scene, however, so he ignored the elements, splashing happily through puddles in Golden Gate Park and practically drowning in Steep Ravine in an attempt to run part of the notorious Dipsea Trail. He also made daily visits to our laboratory, where we took blood samples, aimed at establishing the "normal" hematological values and blood chemistries for marathoners. Among the 18 factors monitored were glucose, cholesterol, triglycerides, uric acid and various enzymes. The IHR also did several blood clotting studies, since vigorous exercise is known to affect various coagulation factors.

Late Saturday night, armed with the monitor and one four-hour reel of tape, we had to figure out the best way to carry it on the run. Ron finally taped it securely onto the back of his web belt, padding both the belt and box with half-inch thick foam rubber to reduce chafing.

My husband was intrigued by the miniature monitoring equipment. Being far more experienced with such devices than I, he was dubious about the ability of the tape to hold the three electrodes

(leads) securely for 26+ miles, and suggested using stitched-on or "needle" electrodes for greater security. Ron blanched a bit at this. He was mentally reconciled to giving blood, but had not anticipated minor surgery. Fortunately, for him, the only electrodes supplied with the kit are the disc type that are taped on, and we had no choice.

Early Sunday morning we set out for the marathon in Burlingame, a half-hour south of San Francisco. Ron occupied himself during the trip by fashioning a large cardboard key for the black box and labelling the whole sinister-looking apparatus "Vergeltunswaffen," after Hitler's secret World War II weapon. I was far more nervous than he appeared, and kept mentally reviewing the proper electrode placement, which was color-coded: green for ground, on the upper sternum (breast bone), white on the lower sternum, and red at the apex of the heart, on the left side of the chest. It was this red lead that I feared would be the least stable, since the constant muscular movement is much stronger there than over the sternum. The red lead was necessary to give a good view of the "S-T segments" of the EKG pattern, which would show evidence of any inadequacy in blood flow to the heart.

When we were getting organized in the gym, I fastened this lead on especially hard with two wide strips of tape, and kept my fingers crossed. I also prepared the skin under the round flat leads with abrasive electrode paste and alcohol, and used a generous dab of special conductive jelly in the middle of each lead. The three attached wires were then brought over Ron's left shoulder, taped together, pinned to his shirt, and finally plugged into the little recorder. I flicked the switch on and taped it down in that position 10 minutes before the race started, so we recorded warmup and pre-race excitement as well as the actual racing EKG.

The marathon was run on a flat, five-lap course, on a cool day with only moderate wind and a sprinkle of rain. Despite the extra load of the belt, monitor and wires, Ron finished fourth in 2:26:58, several minutes faster than we had hoped for with that handicap. Afterwards, he maintained that the apparatus hadn't really bothered him much—just a little chafing. The red lead, however, had done just what I had feared, coming loose somewhere around 12 miles. It couldn't be reattached securely with new tape till Ron finished the race.

We left on the recorder to register the recovery period for 1½ hours, and also took several more blood samples at intervals.

Decoding the EKG results took some time. The small magnetic tape in the portable monitor records the electrical activity of the heart on three input channels (one for ground). These signals must then be converted into a readable EKG by a special "scanner," a large machine which incorporates a tape playback device, oscilloscope and conventional EKG machine. Despite my attempt to be selective when scanning, I soon accumulated yards of paper EKG strips all over the floor. When the scanning was finished, I was delighted to find that we had picked up the heart rate continuously during the marathon, despite increasing interference caused by sweating and the subsequent loosening of the red lead.

The results of the experiment were just as interesting as we had hoped. That running a marathon is hard work will come as no surprise to anyone who has tried it. But the magnitude of the effort involved, as determined by the performance of the heart, was quite phenomenal.

At the start of the marathon, Ron's heart rate zipped up immediately to the range of 177-180 and stayed right there for almost 2½ hours. This is close to 95% of his maximum heart rate of 187 (as determined by an exhaustive treadmill run), and represents a much greater prolonged effort than has been considered possible by most physiologists. Heart rate roughly parallels both cardiac output and oxygen consumption, which were thus also about 95% of maximum. In Ron's case, this corresponds to an oxygen consumption of over 70 milliliters per kilogram per minute for the duration of the run.

Recovery from this prolonged hard work was very fast. During the five seconds it took to reattach the red lead after the race, Ron's pulse dropped from 180 to 150. (This illustrates the hazards of trying to estimate heart rate during exercise by taking one's pulse right after stopping.) Two minutes later it was back under 100. However, the rate then persisted between 80 and 100 for the next 1½ hours of monitoring. Since Ron's resting pulse is around 40, this elevation may reflect continued repayment of oxygen debt incurred during the race.

Does the sustained massive effort of a marathon strain the heart? This question cannot be answered fully from our data, since the S-T segments of the EKG were only readable for the first five to ten miles. However, since Ron's pace and pulse remained steady throughout the marathon, this initial portion is probably representative of the whole. Reassuringly, there was no evidence of heart strain

(Continued on page 22)

HOW LITTLE CAN BE ENOUGH?

The current litany of running training argues, generally, for more rather than less. Most runners and coaches have compulsive psychic characteristics and, therefore, tend toward heavier work loads defined as higher mileage. The question of how *little* one can do and race well is seldom asked.

Being that man is influenced substantially by his environment and its belief system, it is quite probable that the Christian Protestant work ethic has conditioned athletes to be compulsive workers. If this is true, it probably follows that any suggestions about working less would receive little attention. Nonetheless, there are some of us who could be persuaded, providing rational arguments were available, to reduce the quantity in favor of other alternatives.

The only evidence available, albeit empirical, is from athletes racing successfully on a minimum of preparation. Too few of these histories are available from American runners, unfortunately, because of their conditioned inhibition against relating how little training they are doing.

This argument raged in England during the reigns of Chris Chataway and Gordon Pirie during the 1950s. Chataway had been quoted to the effect that if training got in the way of his daily life and Guinness then he'd "pack it in." Pirie was attempting successfully to out-Zatopek Zatopek and arguing for more quarters and heavier boots. Chataway epitomized the athlete with innate talent. He embellished that great talent with *quality* training. Pirie, by contrast, slugged out the repetitions and long mileage. Yet both runners were highly successful and were world record holders.

However, no one who witnessed the 1952 Olympic 5000 final in Helsinki, as I did, could have been more inspired to see 21-year-old Chataway pass Zatopek, Mimoun and Schade with less than 300 meters to go, while Pirie hung on, an eternity behind. The anecdote serves to point out that talent and inspiration, although intangible, are the two factors required for top level racing.

Dr. Louis Terman, Stanford University's famed researcher on intelligence, hypothesized that success in life was at-

tributed to three factors and their interdependence: innate capacity, motivation and perseverance. No one would argue against the assertion that these factors are integral to running also. The hard question is how do you measure these factors as applied to running.

Savants have preached over the ages to know thyself. This is not idle philosophizing. It is incisive advice. If an athlete knows himself, he could, with advice from coaches (and most importantly from readings in the physiology of exercise texts) plan his training relative to his innate capacity, motivation and degree of perseverance.

When I decided to race in masters events in the District of Columbia area in 1969, I vowed that my training would be as low grade as possible while still permitting me to race well—as opposed to seeing how much I could take without breaking down.

I ran every day, regardless of weather. My course was the block I lived on in Arlington, Va. I ran 15 laps, approximately 3.3 miles. I ran five laps for warm-up, five laps of hard fartlek including slight hills, and five laps to taper off. On weekends, I ran in one- and two-mile cross-country or track races. I progressed from 10:36 to 9:47 at two miles and 4:40 to 4:30 in the mile within 12 months. I competed 48 times and won 38. All the races I lost were to younger men. A combination of easy but regular

(Monitoring A Marathoner, Cont'd.)

or ischemia (lack of blood supply) despite the extremely high rate and consequent shortened diastole—the phase of the heart cycle when two-thirds of blood flow to the heart muscle occurs. It thus appears that a well-conditioned heart, despite its greater weight, thicker muscular wall and larger stroke volume, must be richly supplied with blood even during strenuous exercise.

Analysis of the numerous blood samples showed no significant differences between the baseline and post-marathon values, except for a small decrease in fat content (to be expected four hours after breakfast) and a temporary doubling of the white blood cell count, a well-docu-

mented exercise effect which reflects the increased blood flow.

training and frequent races gave these successful results.

An immediate reaction could be that if I had increased the mileage and intensity, I could have done better. No doubt. But recall the Dr. Louis Terman success factors: innate capacity, motivation and perseverance. In my case, there was insufficient motivation to do more. Therefore, the degree of innate capacity coupled with perseverance, defined as daily running, gave me relative success as measured by a win-loss record and times.

I had satisfaction, also, in knowing that I was in very good condition. The intrinsic value of top condition, I believe, is an end in itself. As an example of that condition, I was tested by the State Department cardiologist on the treadmill in 1971, one week before I turned 41.

The results were revealing. I reached a pulse rate of 200 beats per minute during the last six minutes of running. The doctor plotted my physiological age according to the Bruce Protocol, at approximately 30 years. Normally, a man in the decade 40-49 should achieve a maximum of 189 beats per minute, while the decade 30-39 should permit 200 per minute.

I put forth this data and these views merely as being indicative of what consistent and moderate training—as contrasted with the compulsion for high mileage and great intensity—can return in racing success and general health in middle age.

mented exercise effect which reflects the increased blood flow.

Interestingly, all the samples showed higher values than "normal" for nitrogen and certain serum enzymes. These particular blood tests—like the typical runner's slow pulse, high voltage EKG, and (frequently) a soft heart murmur—might alarm any physician unfamiliar with the physiological peculiarities of runners.

In the future, as soon as our Institute can acquire an EKG monitor of our own, we plan to carry out similar studies on runners of all ages and abilities. Hopefully we will eventually have enough data to redefine the normal range, so that this concept will include the well-trained athlete as well as the more sedentary population.

COMPARING RUNNING, WALKING

by Don Thompson

Don Thompson of Great Britain won the 50-kilometer walk in the 1960 Olympic Games. Since the mid-60s, he has been a distance runner. He compared the two sports in the British Road Runners Club Newsletter, which offered us this article for reprinting.

As an active athlete who has competed in over 600 walking races from 1951 to 1968 and in over 100 running races from 1966 onwards, I feel that I can now understand why runners and walkers who have not tried each other's sports have rather fixed ideas on the ease or difficulty of either sport.

Runners seem to think that walking must be hard, as they see walkers screwing themselves up, giving their utmost. Most walkers would consider that the average or below average runner, into which category I would place myself, is rather a gutless individual who appears to run without effort or energy. It's no wonder he is not up with the leaders!

What most runners and walkers don't understand is that the mode of progression dictates the apparent energy output. A walker must remain in contact with the ground, and to overcome this handicap, he does two things. He quickens and lengthens his stride. The quickness of his movement is counterbalanced by equally rapid arm action and shoulder movements. The quest for a longer stride gives the walker the duck-like action when viewed from the rear.

The runner, seeing the walker flogging past, quails with apprehension when he views the apparent work rate which appears to be at least twice his own. This is reinforced when he sees the agonized look on the walker's face. Conversely, the walker may be contemptuous of a runner's apparent lack of effort and agony.

What is not understood by most runners and walkers is that the runner's work rate is so much more. This fact is hidden by the spring imparted by the various leg muscles, with the rest of the body being relatively immobile. The walker's agonized look is brought

about by driving the body along within the limits of the definition, and by worrying about the judges! The walker clawing along, however, is well within the physiological limits imposed by the cardio-vascular system. If the walker is experienced and moderately fit, he can do reasonably well. This explains why walkers carry on to a much later age than most runners, while their level of fitness is not much above the average man in the street.

Except for the top walkers, who put in the mileage, so many of the walkers are somewhat irregular in their training and possibly overweight. I can think of several international walkers of recent years in the shorter distances who would look very much out of place in a 5000-meter running race. They appeared in build to resemble an out-of-condition, overweight 200-meter runner.

Another factor in the walker's favor is that when he gets tired, which if he is fit is a gradual process, he can walk a little slower without loss of style or rhythm. On the other hand, a runner will find that unless he is super fit when fatigue strikes him, it does so almost without warning, and he may be reduced to a shambling wreck in a very short time. When one is tired it may be impossible to run, however slowly, and a runner reduced to a walk is a very pathetic sight.

Perhaps some of my personal experiences will illustrate some points.

In 1954, my first year of distance walking, I found that in the national 50-kilometer walk, I was up with the leaders for 13 miles. Then I blew up, and though feeling pretty rough I was able to keep going to finish eighth in 4:48.

Later that season I did my first London to Brighton (52-plus miles). I was with the leaders from the start. I broke away at 14 miles, felt very weak and rough at 30 miles, but was not overtaken until 43 miles. I finished about three minutes down on the winner.

Had I been a runner who had blown up at the same point, there

would have been a good chance I wouldn't have finished. And if I had, most of the field would have gone by, not just a few athletes. Turning to later years, when I was more experienced and fitter, the onset of fatigue was very gradual, and on "super days" it was possible to do the last third of the race feeling that it was faster than the first third, though, of course, it never was.

In 1968, I started to train seriously for running, following my retirement from walking. It was an eye-opener. "I'll show these runners how to train," I thought. So off I bashed, trying to emulate my walking work rate. By 2½ miles (half-way), I had double vision and felt terrible. I crashed on, and arrived back hardly knowing whether I was coming or going for the next half-hour. This training was for 29-30 minutes. I soon learned to moderate my efforts.

I've run a few 20s and three marathons, all in 2:52 to 2:54. I have found that though I went through 15 miles at six-minute pace, within a couple of miles my pace would drop to outside seven-minute miles. This tends to make distance running a little nerve wracking, because of the suddenness of cracking up.

A recent fall in a cross-country race resulted in an extensive muscle injury to the hamstring. This highlights a not-so-pleasant difference between running and walking: the incidence of injury.

I estimate from my own experience, that the chance of injury is three or four times higher for running than for walking. A running injury is almost certain to mean stoppages in training and racing for fairly lengthy periods. A walking injury is less severe, and there is less disruption in training and racing.

Therefore, the runner, in order to run any distance competitively, must be fit. A walker, because the physical demands are less, may rely more on past experience and minimal training. This allows him to be older, fatter and a great deal less fit.



INSIDE UCLA'S 440 FACTORY

by *Jim Bush*

No one has better one-lap runners, year in and year out, than UCLA. John Smith is world record holder in the 440. Wayne Collett is the Olympic silver medalist. The team holds the American mile relay record, and has won the event at the last four NCAA meets. Jim Bush's comments on his methods of coaching the event were recorded at an NCAA coaching clinic, and first appeared in the "Track and Field Quarterly."

My goal at UCLA has been to see how many quarter-milers we can get down into the 45s for 400 meters. In the past eight seasons, we have had six runners in the 45s or 44s out of blocks. The highlight was in the 1971 national AAU championships, when John Smith and Wayne Collett took one-two, with Smith setting

a world record of 44.5 and Collett tying the old record of 44.7.

A few years back, when I coached in junior college, we had a 53.6 quarter-miler who went down to 48.6 in one year, and a 51.8 man who went down to 46.8 in two years. At UCLA, I have had success with two 49-second quarter-milers, and one in the middle 48s. One got down to 45.8 and the other two to 45.9. Smith and Collett, the two that got to the 44s, were in the 47s when they arrived.

Our 440 program is broken down into three seasons: the fall program from October to December, winter from after Christmas vacation until meets start in late February, and spring for the remainder of the competitive season. (Run-

ners do what they want in the summer, but I hope they get into all kinds of meets and have a good time.) We start working hard in the fall, but beginning slowly.

The fall schedule:

Monday: "Breakdown" workout—that is, anything from a 660 and a couple of 330s; to a 550, a 440 and a 330, or a couple of 550s.

Tuesday: Hill work. We run a grass hill 508 yards long at about a 45-degree angle. We start with one run, with a goal of running up this hill five times by Christmas. About three or four men out of 20 can reach that goal. We never let them run downhill, and I tell them to stop the minute they tie up.

Wednesday: 330s. The number they want to run can vary. By starting

A world record holder, an Olympic medalist, four straight NCAA wins. How do they do it?

out slowly and finishing the workout, they can adjust the following week if they had too much energy left over.

Thursday: Repeat 150s or 165s. We run one, walk right back and repeat.

Friday: Hill work.

Saturday: Easy striding on the grass on their own.

Sunday: Day off.

During the winter, we continue the same program. We just keep getting a little bit faster. Once the track meets begin on Saturdays, we take a rest on Fridays. We eliminate the hill work. Tuesday we do repeat 110s or 150s. We still do our "breakdown" on Monday and our 330s and Wednesday. If we haven't done our 150s on Tuesday, we do them on Thursday.

The runners aren't putting out any more stress and energy, but they've learned to relax. That's the key to running the quarter-mile—being able to run with relaxation and speed for about 400 of those yards. No matter what happens, runners are going to tie up that last 40 yards, regardless of whether they run 50-flat or 45-flat.

So I stress relaxation in every workout—hollering at runners all the time to drop those shoulders and arms, or anything I can think of as being a clue to a man's means of relaxing. Sometimes it takes a year to teach them how to relax, but once they get it, they're on their way.

It's amazing to see some of the results we've had—to see these quarter-milers starting out in October running 330s in 45 seconds and getting down to where they can handle three 330s in 36, 35 and then 34 seconds.

The runners realize why they are starting out slowly. They can see what is going to happen, from October to June. You must get these men to see what they're doing, so that they can believe in what they're doing. The ones we have do believe in it. Of course, when you've had a little success it's easier to convince them.

We have done it before with a hurdler (6'5" and 195 pounds) who couldn't break 50 seconds in a relay leg. He got down to 45.3 on our relay. And his hurdle time went down from 14.2 to 13.6. He won the NCAA championship in that event.

The quarter-mile, I think, should be broken down into four segments, 110 yards each. Each 110 yards is run a certain way, especially the first three. I tell runners to run the first three *my* way and the last 110 *their own* way, because I have no control over how they're going to feel in that last 110.

I have them run the first 110 very fast. They learn to come off the first curve as relaxed as they can, and they run the backstretch without slowing down, yet without using up too much energy.

The key is that third 110. This is where too many people slow down. We drill into these runners that when they hit that second curve, they must start to work again. Everybody seems to think this is the place to slow down, so they will have power to come off that last curve and kick the straightaway. Well, there isn't anybody that is going to kick in on the last straightaway because fatigue is settling in. I teach my quarter-milers to run that second curve hard. That is not easy to teach. We work all year long, from October to May, on relaxing in that second curve and running it fast.

We also put great emphasis on the mile relay as well. And we have won the NCAA title in the relay five of the last seven years, including the last four straight.

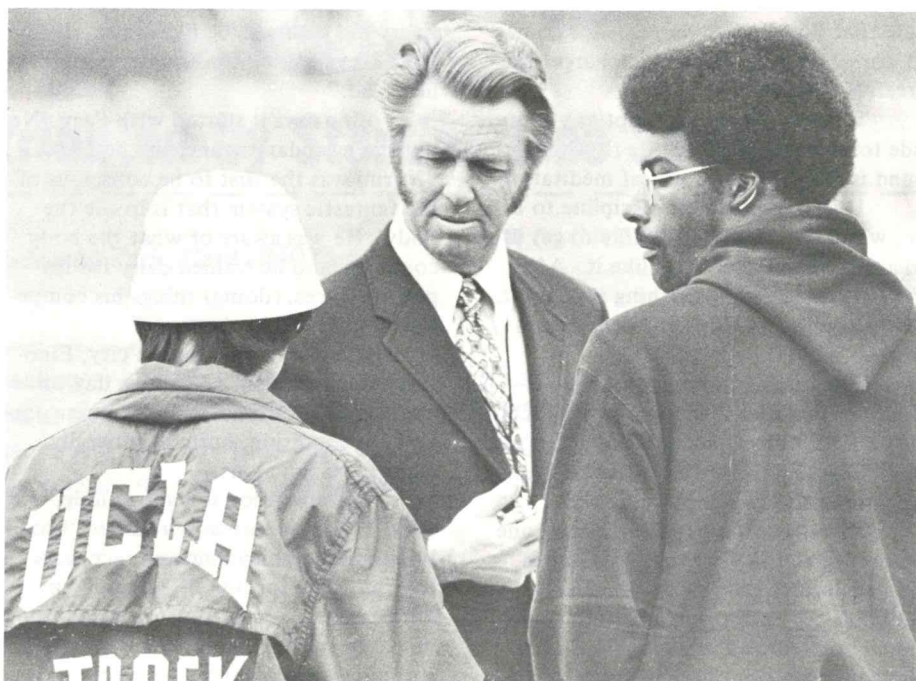
A great amount of work goes into our relay passing. Too many coaches think that the mile relay pass is easy, and very little attention needs to be given to it. This is the biggest mistake a coach can make. Runners can make up between two and three seconds on every visual pass in the mile relay. That's six seconds which can be taken off the total time!

At UCLA, we feel that we can get close to 3:00 if everyone runs to his fullest potential and we pass the baton correctly. We work on getting that baton fast and on sprinting fast for 30 yards before settling down to pace. We work and work on this.

We are very proud of our relay record. I used to always start my slowest man first and move right down the ladder. This cost us the mile relay in one of the big relay meets. Rice University put its best man second, and we missed beating that team by one inch, both running 3:05.1. In the NCAA championships, later that year, I put my second best man second. He ran 44.7 and got us the lead we never gave up. This also got us the American record of 3:03.4.

LEFT: UCLA's one-lappers John Smith (right) and Benny Brown (center) en route to first and third in last year's National Collegiate meet. (Steve Sutton photo)

BELOW: Coach Jim Bush counsels his runners. (Stan Pantovic)



RUNNING'S INFLUENCE IN ART

The exploits of Finnish runners like Lasse Viren, Pekka Vasala and Juha Vaatainen may seem like the end result of carefully planned training methods and the latest scientific techniques. To a certain extent they of course are.

But when an equally famous countryman from another field talks of his involvement with running, it becomes apparent that to the Finn running is a lot less tangible than lap times, training programs and race tactics. Running is a vital everyday life force.

Eino is a Finnish-born sculptor living in southern California. He uses his first name exclusively, but for the record the last is Rompannon.

"I run to keep nature's balance," says Eino, "to attune the body with the mind. With me the mind is in shape if the body is. If my body drops off, so does my mental state. Emotional strains are worked out best by running, and what proves your physical well-being better than a long run?"

To the marble sculptor (Eino is one of the very few artists expressing themselves principally in marble), physical conditioning is most important. The work required in sculpting a four by four-foot slab of marble to form is a task that taxes a man's strength and stamina beyond the ordinary.

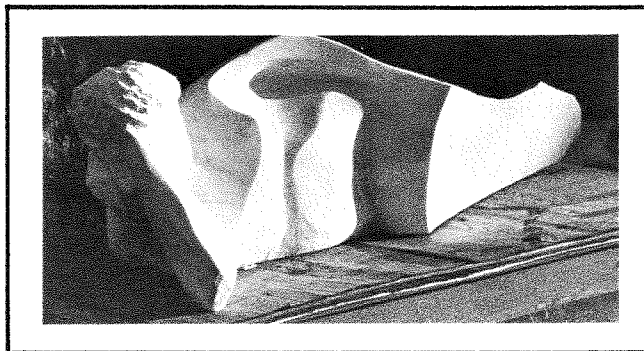
But all the conditioning in the world will not bring to life a piece of rock. It's here that Eino's spirit and essence comes to fore. To Eino, running recharges the creative energies.

He says, "Running empties you inside to receive nature. In its rhythm, the mind is freed. It is a form of meditation."

It is also a form of discipline to Eino, who says, "I especially like to get into a run when I don't feel like it. After the first few steps, everything is all right. There are no concerns left. Running is in your mind."

The human mind has always fascinated Eino, and it was to study psychology that Eino came to the US in the early '60s. But soon thereafter he found his true calling in sculpture.

"It was as if everything I had done before led to this," he says. Today Eino's sculptures sell for as much as \$20,000. His works include both traditional portraiture and abstracts, and critics have compared his sculptures favor-



Eino says his talent at sculpture (left) is related to his regular running (below). (Stan Pantovic)

ably to the work of such giants in the field as Rodin and Michelangelo.

Thirty-three-year-old Eino lives with his wife and daughter on 700 acres of land in the Virgenes mountains outside of Los Angeles. It is an ideal locale for Eino's runs. His day normally starts with a 5-7-mile run that would pose a stiff challenge for the sturdy, mountain-wise legs of Sheba, the family goat.

Occasionally, Eino will run a 20-miler just to see what shape he is in. "It is satisfying for my ego," he says, "to know what my condition is."

The present Finnish running explosion is of interest to the sculptor. He feels "it goes in cycles, and the present Finnish cycle is on a terrific upgrade. Every kid wants to be like Viren. In the next 10 years, the Finns will be running like mad."

Eino says it started with Paavo Nurmi, the legendary runner of the 1920s. "Nurmi was the first to be conscious of the fantastic system that is inside the body. He was aware of what the body could do, and he trained daily for his performances, (doing) things his competitors neglected at the time."

When still living in the city, Eino himself used to run 16 miles a day on the track. He admits to being near competitive condition, but still generally chooses to run alone.

"Competition is a good thing," he says. "It explores man's abilities. I used to compete in bicycling and race walking, but I run for myself, to know myself. I have nothing to prove when running. To me it's a comfortable thing. Running is a pleasure. It is really a dif-

ferent thing for everyone. The main thing is to run.

"I don't feel together when I don't run. I have been running since the age of five, and I will be running the day I die. Man always makes himself do what he wants to do."



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"Coming up a long hill three miles from the finish, I caught the younger leaders. When I came up on them, I noticed they were both covered with dried

sweat. I wasn't. I was perspiring freely. I gained a half-mile on the others from that point and finished in 2:29:33."

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Steve Sutton photo

BOWERMAN ON THE OLYMPICS

by Janet Newman

Tourists packed Munich's Marienplatz, waiting for mechanical figures to pop out from the walls of the high medieval building skirting the plaza. Groups of healthy-looking young men and women flocked to the department and curio stores. An occasional jacket emblazoned with USA or DDR sent swarms of children off seeking autographs. Tourists and natives alike crowded around the ever-present TV sets to watch the fight for medals on the other side of town.

Bill Bowerman stood alone in the throngs, waiting for his wife to transact business at a bank. For the moment he was motionless. His moment of contemplation was broken when a hometown acquaintance spotted the Olympic track coach.

"Enjoying the Games?" asked the friend from Eugene.

"Nope."

"Not even the competition?"

"Not even that. The moment our last competitor crosses the finish line—we're leaving."

Half a year later, safely home in the rainy Willamette Valley of Oregon, Bowerman looked back on Munich. "I've been to five Olympic Games," he said. "They were all great, except this one. This one was a shambles."

Bowerman is disenchanted. The incidents, petty and tragic, have not faded for Bowerman. He still speaks with anger and outrage for a United States Olympic Committee which ignored the needs of its athletes, for the German Olympic Committee which ran a tragi-comedy of errors and for the International Olympic Committee which played dangerous political games.

But the old blood which Bowerman so fervently attacks is being replaced. Athletes are finding representatives on the USOC. Avery Brundage had stepped down from the international body, to be replaced by the more liberal Lord Killanin. And athletes are already talking Montreal.

A cushion of time has lessened some of the emotion that threw the Olympics from turmoil to tragedy. The political problems remain; the terror of Black September has not disappeared. But neither have plans for the next Olympiad.

Many of the charges that Bowerman makes about Munich must be looked at now, with thoughts and suggestions for Montreal, and changes which must be made to insure a "good" Olympics.

The problems start at home, says Bowerman, with the US Olympic Committee which handles the preparation and finances of athletes participating in the Games. Bowerman thinks that the USOC did a poor job. For instance, training camps for prospective athletes were established only two years prior to the Games. Bowerman believes that such camps should operate every year, on a local basis, through local clubs.

"It's too much of a national program when it should be local," he says.

He sees the USOC as helping to fill the gap between school athletics and club athletics. Many local programs need the impetus of USOC dollars to establish the sorts of opportunities that breed athletes.

Citing the Oregon Track Club's olympic contingent of five distance runners last summer, Bowerman points out that "we don't have better cabbages than other people; it's the result of the program." From summer all-comer track meets to putting on the 1972 Olympic Trials, the Oregon TC has successfully nurtured an intense interest and high level of participation in track in Eugene.

The retired University of Oregon coach notes that schools take care of the athlete until he's 21 or 22, but after that he must pay his own way if he wants to participate in the Olympic Trials. The USOC refused even to provide housing for athletes last year.

"That's wrong," Bowerman says. "We had a gate near \$200,000 (at the Trials) and requested permission to pay room and board of the athletes. We could have

done it easily but we were denied the opportunity by the USOC.

"I'm critical of them (USOC)," continues Bowerman, "for not taking into consideration the athlete."

He charges certain USOC members with using gift money to build up their own retirement fund, and would like to see a Congressional investigation of the USOC and the funds it has raised.

Changes are already taking place to make the USOC more responsive to athletes. A group calling itself the "Committee for Better Olympics," formed after Munich, has succeeded in placing active athletes in the USOC power structure. Arthur Lentz has relinquished his position as executive director, to Bowerman's relief.

Bowerman suggests that the USOC reorganize its present system of overseeing the various Olympic teams. Instead of having one executive director in charge of all sports, there should be one chairman for each sport, someone directly connected with the sport. This set-up would fit well with the type of extended Olympics Bowerman envisions.

He sees the Olympics extending over a two-month rather than a two-week period, with teams brought in on a schedule. Swimming competition might take place the first 10 days, to be followed by 10 days of track, and so on.

"For example, use the track and field facility on a continuing basis, for track, for soccer, etc. Fewer people would be accommodated in the facility, but there would be more people over an extended time. And a lot less housing would be required. Instead of having 20,000 people at a time, there'd be 2000. Huge crowds create a hardship—both economically and security-wise."

With the sports spread out over two months, and with one chairman directly related to his sport in charge for his particular time period, organization and communication might have at least a chance within the US groups.

At Munich Bowerman constantly found himself fighting his own Olympic Committee. "It was like beating bears... I knew communication would be difficult. I didn't know that it would be impossible."

USOC executives not directly connected with any sport caused Bowerman more problems than they helped solve:

"At Munich a message went from the German Organizing Committee to the International Olympic Committee, to our organizing committee which was staying downtown in a plush hotel, to the individual sports.

"And communication, it turned out, was a vehicular matter as well as one of

written words. By the time vehicles were assigned to the different sports, as far away as Kiel, seven cars were left for track and field, basketball, wrestling, gymnastics and administrators."

"Who got the vehicles?"

"The administrators. They had the cars downtown. (One administrator) would drive to the Olympic Village in the morning and get out of the car, and then some babe—it may have been his wife, it may have been his secretary, or it may have been a *fraulein*—would take off with the driver and the vehicle was gone. It'd come back at a given time to pick up (this administrator). He had a private limousine. But for the teams, the wheels were gone."

The problems of communication frustrated Bowerman, a man who doesn't like no for an answer. With an extended program at Montreal, the Canadians could effectively reduce the communications mix-ups which caused runners to miss heats, vehicles to be misappropriated and marathon paths to be left unsurfaced. By reducing the number of Olympic participants and officials at any given time, communication channels should not become clogged as they were in Munich.

In Munich there was no insurance that each team would receive notice of any official changes in program. Steve Prefontaine found that visiting track fans knew more about his 5000-meter heats than he did. The central information bureau in the Montreal Olympic Village would do well to install the sort of mailbox system used for each team in Mexico City in 1968.

With only one sport to deal with at a time, the host organizing committee, the IOC and the International Amateur Athletic Federation (IAAF) should be able to devote full and fair attention to that one sport.

Bowerman fought to get attention from the IAAF. He confronted the group daily, for 10 days, to get a portion of the marathon course resurfaced. Bowerman refused to withdraw his complaint and the path was never fixed.

Bowerman still holds a grudge against the IAAF for disallowing Rick Wohlhuter and Jim Ryun from continuing in their competition while allowing Kenya's Mike Boit to continue. Bowerman says that Boit was late for his heat in the 800 meters but was advanced to a later heat. Disqualified in that heat for running out of his lane, Boit appealed and was again advanced to the next round. He won a bronze medal while Ryun and Wohlhuter could only watch their events continue without them.

Undoubtedly Montreal will face

similar rules problems. New rules may need to be made to deal with the sticky disqualification process. All Bowerman asks is that rules be followed uniformly, impartially and publicly.

He continues to be amazed at the law of averages which put Americans in lane one, race after race. "There was not a heat run that we did not have the inside lane," says Bowerman. "That's the worst lane. Our best man in all lane events was always on the inside. If we had three men in a final event we always had lane one, two and maybe six or eight. Six isn't bad, but eight is. If a runner isn't a real judge of pace, he'll kill himself."

A public drawing of lane assignments by team representatives would stop any speculations or complaints like Bowerman's, legitimate or not.

Bowerman is inclined to think that there was a conspiracy in Munich to make the Americans look bad. He won't say he's sure, but he cites the appeals that didn't go through, the pole vault controversy, the refusal of the Germans to allow him to use unofficial vehicles for transporting athletes, and the communication breakdown between teams and organizing committees.

"If it was a conspiracy, nothing can be done," says Bowerman. "You can take it and go ahead and bleed."

Montreal planners are certainly aware of conspiracies, though of a much more hideous nature. The Black September group continues to spread terror in other parts of the world. Who could have foreseen the Israeli massacre?

Bowerman is led to believe that the Germans were aware of the Black September activities but failed to check the group.

"The fact that the Germans didn't make preparations for them is a serious indictment of what their responsibilities were."

It may be difficult in 1973 to determine which political groups may be seeking center stage in Montreal in 1976, but security precautions must be strongly considered.

"Security at Munich was atrocious. The day we walked in there I looked at our team's building—a beehive sort of thing—and I thought, 'well, this isn't too bad, except a petty thief wanting to get to the sixth floor could go hand over hand through the balconies.' And you could go up and down the stairs at will."

Bowerman wanted more security, a man at the front door and two on patrol. He wanted an ID check. He drew up a proposal asking for more security guards. They didn't materialize until after the Israeli tragedy.

Before German tanks surrounded the Olympic Village, virtually anyone could get in. Wives of athletes made fake ID passes, and so did some tourists. They needn't have bothered. Guards nodded and smiled at anyone wearing a sweat jacket, seldom asking to see identification. Gate crashers quickly discovered that other than at the front gate, security was lax.

Montreal may not relish the idea of tanks and machine guns dominating the Games, but it seems reasonable that guards be armed with something more convincing than a pretty blue jacket.

And again, with fewer people to guard, security measures can be more strictly enforced. The press can do its part too by respecting the privacy of the athletes and by honoring security precautions.

If the 1976 Games are conducted on the two-month basis, the spectacle aspect would be reduced and the eyes of the world would not be glued to a Montreal center stage. The terrorists in Munich knew they had a huge audience. With planning, Montreal can reduce the audience impact but retain the fundamental purpose of the Games—outstanding athletic competition.

Both athlete and spectator would benefit. Each sport would have its own limelight. And each sports fan could concentrate on his favorite sport or sports, instead of trying to take in four or five sports at one time. While television at Munich managed to capture most of the highlights of each event, it had to edit out many things to make room for all the other events.

Likewise, the visitor to the Olympics who wants to watch gymnastics as well as track finds that there just isn't enough time to see both.

The two-month schedule would alleviate those problems.

Along with structural problems to solve, Montreal planners have a myriad of other decisions to make. Seemingly petty decisions, such as whether or not to play national anthems, will have international repercussions. And other decisions, like how much security is needed, must realistically aim at saving lives.

Bill Bowerman has optimism for the future of the Olympics. Lord Killanin is at the helm of the international governing body. Goals and ideals are being redefined. The structure of the Games can also be redefined.

But Bowerman prefers to work in his own backyard, where he's the own boss, working at the grassroots level, working with athletes who still run with the gleam of Olympic gold in their eyes.

RUNNER'S WORLD WEEKEND

July 13-14 certainly is going to be a good weekend for running in the San Francisco Bay area. And there is no better place to hold the events than on the tartan track at San Jose State.

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Everyone will receive an award this year. And for \$1.00 extra, participants will receive a 24-Hour Relay T-shirt (\$2.00 to non-participants). Here is the schedule:

- 7:30 p.m. (July 13)—RW 24-Hour Relay (2-10 men team, one-mile legs). Entry fee—\$5.00 per team (if received by July 5). Post-entry—\$8.00 per team.
- 8:00 p.m. (July 13)—50-mile track run. Entry fee—\$.50 per person (if received by July 5). Post-entry—\$1.00.
- 9:00 p.m. (July 13)—3-mile fun run. No entry fee.
- 6:30 a.m. (July 14)—50-mile track relay (5-man team, 2-mile legs). Entry fee—\$3.00 per team. (Enter that morning.)
- 1:00 p.m. (July 14)—2-mile fun-run. No entry fee.

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RUNNER'S GUIDE TO CHICAGO

Ken Young, a graduate student at the University of Chicago, is one of the country's most talented ultra-marathoners. While pursuing the elusive rewards of this kind of running, he has covered large chunks of the city which he writes about here.

The place to run in Chicago is along Lake Michigan. Bicycle paths stretch virtually unbroken along the lakefront from Bryn Mawr on the north (5600 N) to Rainbow Beach on the south (7900 S) along the lakeside of Lake Shore Drive. The varied scenery makes workouts pass quickly and, in the summer, the lake breezes usually make running quite refreshing.

You can get a rough estimate of mileage by figuring 800 street numbers to the mile (except between 0 and 1600 S which is 1.5 miles). With all the ins and outs, the distance is close to 20 miles one way. Although you can run virtually the entire distance on pavement, you can also run up to 70% on grass if you choose.

If you're staying in the Loop, head east through Grant Park until you reach the lakefront. Then go south to McCormick Place for a run of up to 10 miles or north for runs up to 20 miles. If you're staying near the University of Chicago, head east along the Midway, through Jackson Park and go either north or south. Most of the routes between 31st Street and Rainbow Beach have been measured with a calibrated wheel and a number of the local runners have maps.

In addition to the lakefront, Chicago is dotted with parks of sizes ranging from sandbox to hundreds of acres. The larger ones include Calumet Park (on the lake adjacent to the Indiana border), Jackson and Washington near the University of Chicago (5900 S near the lake), Marquette (6700 S and 3200 W), Douglas (1600 S and 3000 W), Garfield (0 N and 3600 W), Columbus (400 S and 5600 W), Humboldt (1200 N and 3000 W), Riis (2400 N and 6200 W), Grant (400 S and the lake) and Lincoln (1600 N to 5600 N along the lake). In the parks, you'll find drinking fountains at frequent intervals plus, in the summer, toilet facilities are open in most of the parks and along the lakefront.

Races are frequently held in Riis

Park both summer and winter, and shower facilities are available in the fieldhouse there (2400 N and 6100 W). Notices of races to be held are generally posted in the fieldhouse. Riis Park also has a 400-meter cinder track, but it is rather poorly maintained.

The other main area for racing is around the University of Chicago. Open cross-country races are held every weekend during October and November in Washington Park and road races are run occasionally on a two-mile loop in Jackson Park. In spring and summer, there are all-comers track meets at the Stagg Field track (5600 S and 800 E), and open indoor meets are held every few weeks from December through March at the UC fieldhouse (5600 S and 1100 E).

Stagg Field is generally open from April to November, and its 440-yard Tartan track available for workouts. At night, there is usually sufficient light to run by, although they usually lock the gates around 9 p.m. Local runners usually run track workouts between 4 and 6 p.m. and race information can be gotten this way.

Other than the tracks at Stagg Field and Riis Park, there is the 440 cinder track at Loyola University (6400 N and the lake) and a 400-meter cinder track in Jackson Park which is very poorly maintained. Few of the high schools in Chicago proper have tracks, but many of the suburban schools do.

Hills are few and far between in Chicago, and probably are not worth the effort of finding them. Running along the lake into the almost constant lake breeze during the spring is good resistance work. In addition, if you like running in sand, the Rainbow (7500 S), Jackson Park (6300 S), Oak Street (1200 N), North Avenue (1800 N) and Fullerton (2200 N) beaches still have plenty. But they may be crowded during the summer. Try them before 10 a.m.

Although I'm not too familiar with the suburban areas, there are many forest preserves, and the ones I've seen have plenty of running room over grass or dirt.

The traffic hazard is negligible along the courses I've outlined. Getting to a course, however—especially in the loop—you'd best consider it an easy warmup

and watch the traffic carefully. Stay off the expressways. The police won't bother you for running an occasional red light, but don't overdo it.

Dogs are a problem despite city ordinances banning dogs in parks and requiring dogs to be on leashes in public. These ordinances are widely ignored, but most people will make an effort to hold their dog if you yell at them. I prefer to attack dogs which bother me, thereby teaching the dog not to bother runners. This is much more effective.

Problems with being attacked, shot, mugged, or otherwise physically restrained from completing a workout are almost non-existent. I personally have never heard of a runner being attacked without provocation in Chicago. A few misguided dog owners have tried to take revenge on me after I gave their dogs a lesson in behavior, but they succeeded only in providing a nice change of pace for me while proving to themselves how out of shape they are.

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Mt. Washington in New Hampshire is the highest peak in the northeastern US. An annual race has been run to its 6288-foot summit each year since 1966, and periodically before that. This year's climb is June 17. For information, write to Bob Campbell, 39 Linnet St., West Roxbury, Mass. 02132.

I'm leading. I feel good and I'm going to win the Mt. Washington race. I took the lead shortly after the cannon. That's right, a toy cannon fired at Jock Semple's command.

I didn't doubt that I was going to run the eight miles to the top faster than anyone else in the field. I mean, I *always* beat Roland Cormier, whose back I haven't seen for years, and Roland Thomas, the old chicken-farmer-turned-truck-driver from Maine.

So all I have to do is run it. There are seven miles left, and as Jock says every year, "It's an easy course—only one hill." This is going to be a private affair between me and the mountain. The sun is shining and I have a great view of the Presidential Range and Tuckerman Ravine. I'm running up, churning away the mountain with what the *Christian Science Monitor's* reporter later described as a "butter-smooth stride." Roland and Ralph are all arms and legs behind me.

I remember four years ago, running this dirt road for the first time. The road is relentless, with not an inch downhill or flat except the first 250 yards. George Waterhouse, weighing in at a half-century, tick-tocked past me while I was trying to run backwards to ease my raw macaroni thighs. This is not going to happen again. No old geezers are going past me today. I am going to beat this mountain. I'm not even all-out yet.

One hundred twenty-three men and two women are behind me. Although I don't know it yet, I will marry one of those women six months later. Charlotte Lettis is somewhere below me on New England's highest carriage road, built in 1861. She is going to be the first woman to finish this race in the 12 times since 1936 that sunspots or moonlight have caused entry blanks to be printed.

The timber line comes. I'm not even thinking about second place. At 3000 feet, I have a nice lead.

I pass the halfway house and a group of hikers and tourists marvel at

me. Back a couple of years ago, I learned later, this same sort of amazed crew cheered Roland Cormier as he sprinted and then stopped, thinking he had reached the finish. So you see I didn't know then what kind of mad revenge burned in Roland's mind.

I run with the power of positive thinking propelling me. I did win the New England AAU marathon a week ago over a tough course, and I did win the Acton four-miler two days ago, although I had difficulties finishing because of a cloth banner two Boy Scouts were holding across the finish line like a tape. I stopped and squeezed my way over the line.

I am having fun with this spaghetti road stuck like iron-on ric rac to the sleeping slope of this mountain. Five miles gone.

The guy from the *Monitor* is taking my picture in the bright sunshine. I love it, and sprint up to the station wagon and tag the tailgate he is perched upon. The driver has to mash down the gas. The car groans.

"Man defeats machine," I shouted, and I am ebullient in sharp focus with a good depth of field.

I draw energy through invisible silver wires attached to every diamond facet of this dynamic panorama around me. I can't see much ahead, but it is a great view down.

They say John J. Kelley, who won the race in 1961, ran 3:50 for one mile on the way down after the race. It is presumed that he was in a great hurry to return to the base because there was a 38-degree temperature difference and a snowstorm at the summit.

The weather gets wild up here, and people have died in sudden blizzards on June afternoons. A world and American record 231 miles per hour wind velocity was clocked here, and a temperature of minus-59. But today it's sunny, 70 de-

grees, and I'm sweating. I'm loose and swing higher with each turn.

My mind rambles off in poetry as I run. I'm sorry I can't write it out here for you because I'm sure it would rival Wordsworth. But the poem is like a good dream. The words and images are there. But like the dream, I can't remember what it was about. I can only remember that it was good.

Then I run into a cloud. The lead car disappears. Fog and sleet blow through my shirt. I am alone. The panorama is gone. Somebody cut my silver wires. It's a timeless kind of heath fog from *King Lear* or *Jane Eyre* that engulfs me. I lose my heat and grow numb very quickly. I'm freezing cold, so I try to run harder to warm up. I can't.

Ralph Thomas scratches up behind me through the icy spit and pulls alongside. There's nothing I can do. I haven't the strength to elbow him into the gray abyss as he pauses to speak to me—"Watch out, Cormier's comin' fast"—then disappears ahead.

Cormier goes past, fast.

Max White goes past.

Crazy Peter dances past, singing.

I run the last mile alone. I try to run, but my feet won't leave the ground. I would be legal in a race walk.

Not one bit of level ground. Just a little downhill, just 30 yards, and the tightness would go away. All hill, eight miles, no quarter.

I blunder over the finish line, fifth, and I can't see back 20 yards to where I came from. My eyes can't really tell that I am on top of New England.

But the mountain tells on me as I sit in the rain, wind and fog and watch gray turn to black and then into runners. A bit of each one has worn off on the mountain. A bit of psychic erosion joins the spirits of other runners that have been left after the halfway house.

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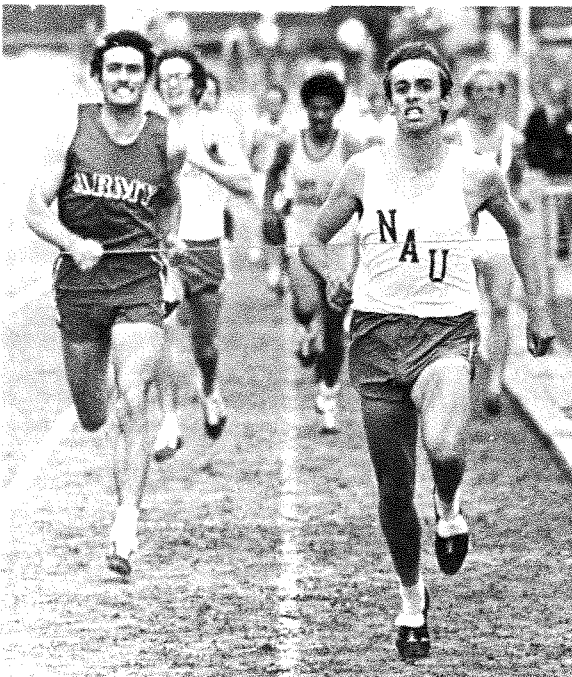
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Early in the mile, the eventual winner Richard Selby of England is a well-hidden third (behind runner in the Canadian uniform).

The action at Mount Sac



The "relay season" traditionally has a big windup the last weekend in April, with the Penn, Drake and Mt. San Antonio meets. Stan Pantovic's camera caught this action at Mt. Sac in Walnut, Calif.



ABOVE: Selby, who attends Northern Arizona University, came from the pack to win in 4:05.9.

RIGHT: Southern California's two-mile relay team, third here, won in 7:36.2.



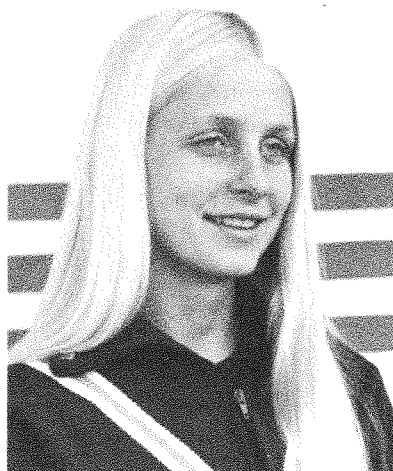
ABOVE: Final handoff in the 440 relay, won by Cal Poly of Pomona.

LEFT: Southern California (dark shirt, center) won the two-mile relay.

RIGHT: Marilyn Neufville (left), returning from serious injury, is on her way to second in the 220.



PROFILES



VALERIE EBERLY

This is Chapter Three on the fast young women. We've already talked about 14-year-olds Mary Decker (March) and Robin Campbell (May). Now it's Valerie Eberly's turn.

Valerie was the youngest member of the US international cross-country team that competed in Belgium recently. She was just 16 when she made that team by finishing fourth in the AAU championship last fall.

Eberly is already a veteran runner from a family of runners. She started racing when she was 10, and was developing well when struck down three years ago by a knee injury. That cost Valerie two full years of running. She didn't start competing again until last spring, but by July was fit enough to win the exhibition 3000-meter run at the Olympic Trials.

Even though she's a 4:54 miler, Valerie says, "I prefer cross-country because I am a distance runner, and running around the track that far gets monotonous."

Valerie shares a coach and a training routine with Francie Larrieu, currently the country's leading female distance runner. They train together with the San Jose (Calif.) Cindergals, under Augie Argabright.

Valerie's younger sister Vicki placed third in the 14-17 division at the AAU cross-country meet, and brother Vance won the 12-13 race at the California state championships last fall.

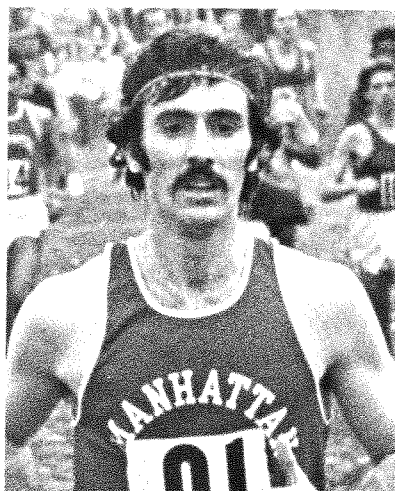
Valerie Eberly: Los Gatos, Calif. (San Jose Cindergals). 17 years old (born May 1, 1956, at Sioux City, Iowa). 5'6", 110 pounds. High school student. Began racing in 1967 at age 10. Coached by Augie Argabright.

Racing: 1500m—4:32. Mile—4:54. 3000m—9:45.

Training: once a day, 7 days a week, 9 months a year. "In early season, I run a lot of distance (75-100 miles a week). As the season progresses, distance decreases and I do more quality workouts. At the end of the season I run 40-60 miles a week of quality work. A typical week would be:

"Monday—2 x 1½ miles. Tuesday—20 x 440. Wednesday—2 x 1320. Thursday—10 x 440. Friday—20 x 220. Saturday—race. Sunday—10 miles.

"My coach wants me to lay off between seasons, then come back and peak for the championship meets."



Steve Sutton photo

MIKE KEOGH

True, Mike Keogh is an Irishman by nationality. But he isn't an imported, ready-made runner. His family settled in the US before Mike was 10. As far as his running is concerned, he's quite American.

Mike is compiling an impressive set of credentials for himself. As the earlier story in this issue noted, he's still the two-mile record holder at the Golden West Invitational. Last year he won the AAU 5000-meter championship. Last fall he was seventh in the NCAA cross-country and ninth in the AAU—five days apart. Then in March Mike won the NCAA indoor two-mile, helping his school—Manhattan—to the team title.

Keogh made the Irish Olympic team, despite the fact he hadn't lived there in 13 years.

"I believe the experience I have gained by running in Europe and in the Olympics," Mike says, "has given me an edge over most guys. I have gained a lot of confidence also, which is an intricate part. And add also to this a more relaxed attitude towards racing."

He explains the last statement: "Racing really gets a guy keyed up inside, but this can be held to a minimum if the atmosphere you're in is a relaxed one. I'm not saying you should not be nervous, because that is almost impossible. But only be nervous to an extent. If you cannot learn to relax and enjoy what you do and work for seven days a week, then quit. This may sound harsh. But the guy who works hard and is determined should reap the benefits and self-satisfaction that comes with either finishing a tough workout or a hard race. Remember, people come to see you run one day in the week. The other six days are spent in preparation for that one day."

Michael John Keogh: Kearny, N.J. (Manhattan College). 22 years old (born Oct. 13, 1951, in Ireland). 5'8", 125 pounds. College student. Single. Began racing in 1966 at age 14. Coached by Fred Dwyer.

Racing: mile—4:01.4 (1972); 2 miles—8:39.6 (73); 3 miles—13:18.0 (72); 5000m—13:46.4 (72); 10,000m—29.20 (72).

Training: Often twice a day, 7 days a week, 11 months a year; 100-110 miles a week. "During cross-country, this would be my average week.

"On Sunday, I run about 15 miles, starting easy, then after five miles work into about five minutes a mile pace for another five miles, then finish up dragging my ass home. Monday would be a distance day—20 miles in two sessions. Tuesday, on the track 30 x 440 in 68 seconds, then five miles afterwards which should destroy me for the next few days. Wednesday, two sessions of easy distance. Thursday, two sessions, one easy and one hard. Friday, no morning run—just an easy day on the track, usually 25 x 330 at (race) pace, going through the 220s in 33 seconds, enjoying it while I can. Saturday, 15-20 miles.

"I believe that when you are training on the track, concentration is vital because your pace habits that you perform on the track will be used in a race. If you can concentrate while running 440s on the track, then running a farther distance will become all the easier and you will become more efficient in how you perform."

Rick Levy photo



WALTER RENAUD

Walter Renaud was the first over-40 finisher at Boston last year. He ran 2:32:12, which was the fastest veteran marathon of 1972. At the same race this year, he was the second over-40 American (Jim Green finished ahead of him. Walter ran 2:37:16.

Renaud, a college English teacher, insists that all this has happened by chance, not design—that he's a "runner, not a racer."

Walter Renaud: Malden, Mass. (unattached). 41 years old (born Oct. 24, 1931, at Cherry Valley, Mass.). 5'9", 143 pounds. College teacher. Married, one child. Began racing in 1966 at age 34. Self-coached.

Racing: marathon—2:32:12 (1972).

Training: Usually twice a day ("prefer one"), 7 days a week, 12 months a year; 75-80 miles a week. "I've never approached my running very systematically. I started running while living in

Cambridge, Mass., about 10 years ago, with no intention of competing. In 1965 I started teaching at the University of Maine, and though I ran every day I still had no intention of competing.

"In 1966, however, I entered a local race and enjoyed the experience. But I did not compete again for 14 months. In 1968, I ran the Boston marathon, but from '68 to '71 I ran in only 23 races—an average of less than six a year. I had little more desire to compete more frequently. Running has always been more enjoyable to me than competing.

"In my last two years in Maine, I usually ran once a day, 12-13 miles. But in 1972 I had to return to Harvard and my running life changed drastically. I now live in Malden, about 4½ miles from Harvard, and run back and forth on weekdays. On weekends, I try to get in a long run. This kind of running is not as enjoyable as my previous type. Perhaps because of that I am competing in more races.

"I still regard myself as a runner, not a racer. I like to do well in races, but I don't care to run in too many of them. I believe, however, one must run in them if he has racing ambitions. I sometimes have thought about what I should do if I had those ambitions. I admit my conclusions are not based on much experience, but here they are.

"I should first of all lose some weight. Secondly, I should train rather than simply run. Now I just run at a comfortable speed. I have never run intervals or any other kind of speed workout. Thirdly, I would compete more, and experiment in some races. After one has, in a sense, "learned" how to race, he

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wouldn't have to compete so frequently. I haven't learned, and I doubt that I ever will.

"I will probably stay where I am in running or go to a lower level naturally as I get older. I will probably go back to one-a-day runs, even though I believe two-a-day workouts make me a better racer. Running once a day after work is over is simply more enjoyable to me.

"Frankly, the greatest pleasure in running for me is just getting off by myself (or sometimes with someone congenial) and thinking over what I've done during the day. I have some wonderful thoughts out running—or at least I did in Maine where I didn't have to worry about traffic. Unfortunately, I'm rarely able to remember them after I've showered."



by George Sheehan M.D.

MEDICAL ADVICE

SHOE TROUBLE

I recently ran my fastest marathon on about half the training I was doing last year. But four days after this marathon I developed swelling and redness on the top part of my left foot. My training for five days was down to about 17 miles, so I had the foot x-rayed because I thought I might have a fracture.

The results were negative, but the doctor told me that at first he thought it might be a form of tendinitis. But he finally diagnosed it as a form of arthritis caused by the strain of running too much on pavement. He recommended I take off two days, and he prescribed anti-inflammatory tablets to help my recovery.

The swelling subsided, so I started with a five-mile jog. I couldn't walk the next day. Then I checked my shoes. I compared them with shoes I had worn last year when I ran a lot more distance. I soon realized that I had a nice thick pair of training shoes in 1972 which protected my feet. But I had run them over and had switched to an old pair of lighter shoes which had the insoles taken out. They felt nice, but they didn't protect my foot from shock.

So I marched (hobbled) down to my friendly shoe shop and got a new pair of the '72 model. My foot problems cleared up in three days.

Moral: You might think that a man who has run 2:20 for a marathon would know better than to use inadequate shoes, but many foot problems are caused by hard-headed runners who keep piling up the mileage after their favorite training shoes are shot. Pay attention to your shoes and save yourself problems. (Carl Hatfield, Morgantown, W. Va.)

"BEACH KNEE"

Q: Until a few months ago, I was a happy 25-35 miles per week runner. Then I made a big mistake by switching from hard firm ground to the sandy beaches along the ocean. My knee started to ache. The pain continued until I finally had to give up running, as I was limping badly and the swelling was pronounced. X-rays were negative, but the doctor thought the cartilage was damaged. He recommended isometric exercises and

large doses of aspirin. Is there anything else I can do? (H. H., Carmel, Calif.)

A: Running on the beach sometimes gives knee pain because of the slant rising up from the shoreline. I have had similar problems and avoid beach running except where it is perfectly flat.

However, it also means you have a pronation problem in your foot and are putting some torque from the foot to the knee. You need to see a podiatrist who is clued in on runners' problems. On your present course, you will get the pain back as soon as you resume running.

The treatment of runner's knee is to ignore the knee and treat the foot.

BLOOD PRESSURE

Q: In mid-January I took my annual physical examination and for the first time took the treadmill (stress) test. The EKG and pulse rate were very satisfactory. But my systolic blood pressure went up too high. (Diastolic was normal.) The doctor advised that I reduce the amount and intensity of my running, which I have done (from 6 miles a day in 46-50 minutes to 2 miles in 17-19 minutes). I am 61 years old and had been training for over-60 races. I am not satisfied that the treadmill test represents my normal state while running. Will you comment? (R. S., Hillsborough, Calif.)

A: I tend to operate in intuitive and mystical areas. I regard, for instance, the human being as an animal who has protective instincts and a set of inborn checks and balances. Ignoring the language of the body is usually what gets us into trouble.

If you enjoyed running six miles in 46-50 minutes, I'm sure it was contributing to your health. And if you were operating at a speed which enabled you to converse with a companion, I would be quite definite about it.

You are left with a blood pressure that fails to impress me. As we grow older, the aorta becomes less elastic. I do not see this as a bad thing, just an aging problem that has nothing to do with the health of your heart.

Stress testing is not only overrated, it is dangerous to the degree that the examining physician curtails activity on a prejudice, as happened in your case.

SOFTER SUPPORTS

(This is a report from a runner-patient who first received soft custom-made orlon inserts for his shoes, then later got a rigid type from his podiatrist to correct a number of foot and leg irregularities.)

I am now making rapid progress in

my training program, and I attribute my success to a number of things: (1) discarding my rigid orthotic appliances and returning to my previously successful orlon ones; (2) knowing myself, my capacities, and reading warning signs properly; (3) conscientiously following a program of stretching exercises.

My history was this: First, I had shin splints. Then I developed runner's knee, primarily in the left, and severely dropped my right arch. I was fitted with an orlon inlay and all symptoms disappeared. I experienced a year of my most successful running ever. However, I did have occasional soreness in my right Achilles and a slight grating in my left hip after 15 miles.

Then I went back to the podiatrist last November and complained that my orlon inlays were wearing, and I would like to purchase another set. Then came the rigid orthotic with front and heel posting.

The results: I could no longer plant my feet straight. The toes pointed outward at a 30-degree angle. My stride changed from a long smooth gait to a shorter more jerky stride. I began to develop a high degree of pain in my legs and sciatic pain. Coincidence?

I laid off for two months. When I started running again in March, my wounds were about 60% healed. That's when I returned to my orlon inlays. I was soon running daily, with less pain each day, my foot plant was straightening itself out, and my stride was becoming smoother and longer.

My feet now look and feel better and stronger. I once again am finding joy in running and in living without pain. However, I do have one problem. My orlons were wearing out in November and are still wearing out. I must convince my podiatrist that this is what I want.

My orlon basically offers me support so my arches cannot collapse, while still offering me freedom of motion in conjunction with my natural gait. The rigid orthotic tries to change this motion. I strongly believe that I need only additional support when running, not a new stride. (J. D., Hellerstown, Pa.)

Dr. Sheehan comments: What progress we are making in this field is due to runners, not the doctors. The medical establishment has ignored the foot completely, and even the podiatrists are not quite sure what to do about it.

We are going to end up with soft appliances eventually. Some podiatrists have not quite accepted this yet, but this is what the runners' experiences are telling us.

JULY COMING EVENTS

This section includes all known national, regional and AAU district championships—running and race walking, at all distances—plus selected other major races. Obviously, we don't have them all, often because no one has let us know the details. Please send your schedules at least two months before the event.

Information includes date, name and site of meet, starting place and time, entry limitations, name and address of director if known. Since information often changes without notice, we suggest you write ahead for information before traveling long distances.

The January issue included a list of individuals to contact for schedules of open distance runs and walks in their areas. We'll update that list in the July issue.

Send listings of races to RW, Box 366, Mountain View, Calif. 94040.

NORTHEAST

- 1 Metropolitan AAU one-hour, New York City area. (open; Joe Kleinerman, 2825 Claflin Ave., Bronx, N.Y. 10468).
- 21 Eastern Masters track championships, Randall's Island, N.Y. (Downing Stadium; ages 40 and over; Masters Sports Association, 11 Park Place, New York, N.Y. 10007).

SOUTHEAST

- 14 Mountain marathon, Boone to Grandfather Mountain, N.C. (Appalachian State University, 11 a.m.; open; George Phillips, 3100 Briarcliffe Rd., Winston-Salem, N.C. 27106).

MIDWEST

- 1 Freedom marathon, Monticello, Ill. (Alerton Park, 6 a.m.; open; Steve Goldberg, College of Law, University of Illinois, Champaign, Ill. 61820).
- 1 Whitewater marathon, Whitewater, Wisc. (Starin Park, 5 a.m.; open; Rex Foster, R. R. 4, Whitewater, Wisc. 53190).
- 7 Minnesota AAU 20-kilometer, Bloomington, Minn. (open? Chuck Ceronsky, 9125 Meadowview Rd., Bloomington, Minn. 55420).
- 14 Sioux Valley Track Club Track Classic,

Sioux City, Iowa (all day; invitational; Jim Gerkin, 4701 Meadow Lane, Sioux City, Iowa 51104).

- 14 Missouri Valley AAU 15-kilometer, Columbia, Mo. (Cosmo Park, 8 a.m.; open; Joe Duncan, 4004 Defoe Dr., Columbia, Mo. 65201).
- 27-8 AAU Junior women's track, Hastings, Nebr. (open to non-AAU champions and non-internationalists only; Pat O'Byrne, P. O. Box 953, Hastings, Nebr. 68901).

ROCKIES

- 4 Molestus half-marathon, Ogden, Utah (open; Ogden City Recreation, 1220 23rd St., Ogden, Utah).
- 24 Pioneer marathon, Salt Lake City, Utah (6 a.m.; open; Keith West, Deseret News Pioneer Marathon, P. O. Box 1257, Salt Lake City, Utah 84110).

WEST

- 4 Southern Pacific AAU 15-kilometer, Santa Barbara, Calif. (San Marcos High School, 10:30 a.m.; open; John Brennand, 4476 Meadowlark Lane, Santa Barbara, Calif. 93105).
- 6-7 National AAU Masters track, San Diego, Calif. (Balboa Stadium; ages 40 and up; Ken Bernard, Box 10512, San Diego, Calif. 92110).
- 7 Redwood Empire marathon, Arcata, Calif. (9 a.m.; open; Jim Hunt, Track Coach, Humboldt State University, Arcata, Calif. 95521).
- 8 National AAU Masters marathon, San Diego, Calif. (Mission Bay Park; ages 40 and up; Ken Bernard, Box 10512, San Diego, Calif. 92110).
- 8 Police Olympics marathon, Los Angeles, Calif. (Los Angeles Police Academy,

7 a.m.; California police officers only; Bob Burke, 1800 N. Academy Dr., Los Angeles, Calif. 90012).

- 14 Oregon AAU one-hour, Portland, Ore. (University of Portland, 9:30 a.m.; open; Richard Raymond, 2575 N.W. Lovejoy, Portland, Ore.).
- 21-2 Northwest Seniors track and marathon, Gresham, Ore. (Mt. Hood Community College; ages 30 and up; Jim Puckett, Track Coach, Mt. Hood C. C., Gresham, Ore.).
- 28 Southern Pacific AAU one-hour, Santa Barbara, Calif. (open; John Brennand, 4476 Meadowlark Lane, Santa Barbara, Calif. 93105).

CANADA

- 1 International track, Ottawa, Ontario (invitational).
- 1 Eastern Canadian and Canada Day marathon, Scarborough, Ontario (7:30 a.m.; open; Lorne Buck, 19 Avonmore Sq., Scarborough, Ontario, Canada).
- 1-2 International track, Saskatoon, Saskatchewan (invitational).
- 4 International track, Montreal, Quebec (invitational).
- 7 International track, Vancouver, British Columbia (invitational).
- 21 Police Games marathon, Toronto, Ontario (CNE Stadium; open; Deke McBrien, Metropolitan Toronto Police, 590 Jarvis St., Toronto, Ontario).

INTERNATIONAL

- 7 International marathon, Rotterdam, Holland (invitational; Koninklyke Nederlandsche Athletiek-Unie, Nachtegaalstraat 67, Utrecht, Holland).
- 9-19 Maccabiah Games, Tel Aviv, Israel (for information on qualifying for US team write US Committee of Sports for Israel, Suite 53, Statler-Hilton Hotel, New York, N.Y. 10001).
- 11-2 US vs. West Germany, Switzerland, Munich, West Germany (national team).
- 14-5 US vs. West Germany juniors in West Germany (site to be determined; national teams, below age 20).
- 15 International marathon, Dublin, Ireland (invitational; Bord Luthcleas na H'Eireann, Moran's Hotel, Talbot St., Dublin 1, Eire).
- 16-8 US vs. Italy, Florence, Italy (national teams).
- 20-1 US vs. Poland juniors, Warsaw, Poland (national teams, below age 20).
- 21 International marathon, Szeged, Hungary (invitational; Magyar Atletikai Szovetseg, Budapest XIV, Istbanmezei-ut 5, Hungary).
- 24-5 US vs. USSR, Donetsk, USSR (national teams).
- 27-8 US vs. USSR juniors, Kharkov, USSR (national teams, below age 20).

RACE WALKING

- 8 Pacific AAU one-hour, San Francisco area (open; Steve Lund, 402 Via Hidalgo, Greenbrae, Calif. 94904).
- 21 National AAU women's 5000m, Boulder, Colo. (open to all women; Floyd Godwin, 935 Ash St., Broomfield, Colo. 80020).



1976 Games

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RACING HIGHLIGHTS

TRACK ROUNDUP

April is dual meet and relay carnival month in the United States, and the outdoor season has been fast from the start. Individually, the headlines belonged almost entirely to Steve Prefontaine.

After his American record six-mile, Steve ran an 8:31.8 two, an unprecedented 3:56.8 and 13:06.4 mile/three-mile double, and a 3:55.0 mile. All were in relatively minor meets.

Jim Wilkins ran a 4:00.5 mile in a North Carolina triangular meet—and finished fourth! Tony Waldrop (3:58.4), Reggie McAfee (3:59.3) and Steve Wheeler (4:00.4) finished ahead of him. McAfee is the first black American under four minutes. Wheeler is a younger brother of Olympian Bob Wheeler.

The two Wheelers helped produce a 16:22.2 four-mile relay for Duke University. It was the fastest mark by an all-American team until Bowling Green State, with Dave Wottle, ran 16:19.6 two weeks later.

Kenyan Mike Boit ran a 1:45.1 half-mile leg for Eastern New Mexico's sprint medley relay team. The total time of 3:15.5 was third-fastest ever.

One of the best performances of the indoor season was late in being reported. Barbara Lawson of Colorado took more than four seconds from the world 1000-yard record with 2:25.1 in March.

Another Colorado runner, Olympian Wendy Keonig, ran what is believed to be a world record for the new 400-meter hurdles. Wendy's time was 59.1.

Following her 4:40.1 mile in the US-Soviet dual meet, 14-year-old Mary Decker started the outdoor season with her best 1500—4:25.7.

LONG DISTANCES

Two of the most spectacular results (besides Boston, of course, and that race has been reported earlier) concerned ultra-marathons.

The JFK 50-miler in Maryland—a combined run and hike—drew a field of 1724, of which 675 finished. Max White won that one.

The 50 kilometers is a championship event for the first time this year.

Bill Scobey recently ran the fastest mark yet for the 31.1-mile race. He passed the marathon in 2:26:31, en route to a final 2:52:24.

Doug Schmenk ran THE marathon in Greece—the original one from Marathon to Athens—and finished fourth, one place ahead of Ron Hill.

Paul Talkington won the AAU 25-kilometer championship, and his Summit Athletic Club teammate Keith Brown took the junior division. Over-40 champ was Hal Higdon.

Bill Ranney led walkers in the AAU's most prestigious championship race—the 20 kilometers. Jerry Brown and Bob Kitchen picked up the next two spots and probable spots on international teams for the summer.

NORTHEAST

● **Wilmington, Del., March 25**—Caesar Rodney half-marathon: 1. Tom Fleming (NJ) 1:06:05.4; 2. Vic Nelson (Md) 1:09:11; 3. Moses Mayfield (Pa) 1:09:13. (190 runners; from Elliott Denman).

● **Washington, D.C., April 1**—Cherry Blossom 10-mile: 1. Sam Bair 51:22; 2. Jack Mahurin (Md) 52:36; 3. Heinz Wiegand 53:45; 4. Donald DeWitt 54:35; 5. Bynum Meritt (1st junior) 54:59. (130 finished, 14 under 1:00, 42 under 1:05; Bob Thurston).

● **Hagerstown, Md., March 31**—John F. Kennedy 50.2-mile: 1. Max White (Va) 5:55:30; 2. Rick Warren 6:12:20; 3. Park Barber (Pa) 6:23:53; 4. Ed Jerome (Va) 6:53:13; 5. Steve Yates 6:53:13; 6. Jim Ebberts 7:08:42; 7. Bill Jackson (45) 7:16:56; 8. Bill Dewar 7:17:43; 9. Leo Richard 7:24:50; 10. Bob Spousta 7:27:35; 11. Tom Dillon 7:37:26; 12. Pat Gill 7:41:13; 13. Wally Joller 7:43:20; 14. Mike Shoemaker 7:43:34; 15. Doug Allen 7:45:00; 16. Martin Sullivan 7:47:30... Donna Aycoth (23, Md) 8:26:07. (675 finished; from Robert Clinton Wood).

● **New York, N.Y., April 7–10-kilometer**: 1. Dave Holt (28, Great Britain) 30:16.2; 2. Norbert Sander (30, NY) 31:08; 3. Jim Schindler (22, NY) 31:11; 4. Frank Handelman (27, NY) 32:56; 5. Paul Ingrassia (21, NY) 33:34; 6. Paul Fisher (18, NY) 33:36... 20. Jim McDonagh (48, NY) 36:44... 30. George Sheehan (54, NJ) 38:17... 43. Nina Kuscsik (32, NY) 39:19. (97 finished, 13 under 35:00, 45 under 40:00; from Joe Kleinerman).

● **Boston, Mass., April 16**—Boston AA marathon: 1. Jon Anderson (Cal) 2:16:03; 2. Tom Fleming (NY) 2:17:46; 3. Olavi Suomalainen (Finland) 2:18:21; 4. Bernard Plain (Great Britain) 2:21:01; 5. Jeff Galloway (NC) 2:21:27; 6. Dennis Spencer (Ga) 2:22:31; 7. Bob Moore (Ontario) 2:23:55; 8. Paavo Leiviska (Finland) 2:23:59; 9. John Vitale (Conn) 2:24:06; 10. Ron Daws (Minn) 2:24:09.

11. Lutz Philipp (West Germany) 2:25:

04; 12. Jack Mahurin (Md) 2:25:31; 13. Steve Hoag (Minn) 2:25:36; 14. Norbert Sander (NY) 2:25:50; 15. Ron Wayne (Ore) 2:26:25; 16. Ulf Hakansson (Sweden) 2:27:26; 17. Larry Olsen (Mass) 2:27:31; 18. Justin Gubbins (DC) 2:28:33; 19. Rick Bayko (Mass) 2:28:40; 20. Russ Pate (Ore) 2:29:26.

21. Duane Spitz (Mich) 2:29:30; 22. Bob Fitts (Mo) 2:30:47; 23. Jack Fultz (Va) 2:30:55; 24. Michael Graham (Saskatchewan) 2:31:12; 25. Bill Bragg (NJ) 2:31:18; 26. John Butterfield (DC) 2:31:24; 27. Don Slusser (Pa) 2:31:24; 28. Max White (Va) 2:31:40; 29. Pat Bastick (NY) 2:32:22; 30. Will Van Dyke (Mass) 2:32:56.

31. Fred Best (NJ) 2:33:23; 32. Peter Lever (Ontario) 2:33:47; 33. Robert O'Connell (Ill) 2:33:57; 34. John Cedarholm (Mass) 2:34:12; 35. Chan Whan Kim (South Korea) 2:34:15; 36. R. Marshall Jones (Mass) 2:34:38; 37. Jim Green (40, Mass/1st over-40) 2:34:58; 38. Gerald Teal (Ontario) 2:35:13; 39. Art Taylor (40+, Ontario) 2:35:30; 40. George Guins (Ohio) 2:35:59.

41. (unidentified) 2:36:02; 42. James Boyle (NY) 2:36:08; 43. Gerry Holliday 2:36:44; 44. Jeff Carmody (NJ) 2:36:54; 45. Walter Renaud (41, Mass) 2:37:16; 46. Martin Sudzina 2:37:19; 47. Paul Thompson (Mass) 2:37:32; 48. Daniel Larson (Conn) 2:37:38; 49. Mike Sabino (Md) 2:37:41; 50. David Wise (Ontario) 2:37:45 (no others available).

Women: 1. Jacqueline Hansen (Cal) 3:05:59.2; 2. Nina Kuscsik (NY) 3:06:29.6; 3. Jennifer Taylor (Mass) 3:16:30; 4. Kathy Switzer (NY) 3:20:30; 5. Sara Mae Berman (Mass) 3:30:05; 6. Gerda Reinke (West Germany) 3:30:20; 7. Sigrid Nadon (Ohio) 3:30:40; 8. Merry Cushing (Mass) 3:36:06; 9. Valerie Rogosheske (Minn) 3:51:12 (Rick Levy).

● **Lexington, Mass., April 16**—Patriot's Day 5-mile: 1. Dan Moynihan (Mass) 23:56; 2. Rick Sum (NY) 24:42; 3. Wayne Frongello (Mass) 24:49; 4. Joe Crowley (Mass) 24:52. (123 finished; from Fred Brown).

SOUTHEAST

● **Gainesville, Fla., March 31**—Florida Relays marathon: 1. Dennis Spencer (Ga) 2:30:53.8; 2. Phil Sutherland (Fla) 2:42:24.4; 3. Terry Helms 2:44:29; 4. John Perry (Ky) 2:44:54; 5. Dave Johnson (Colo) 2:47:46... 25. John Oeltman (59, Fla) 3:26:46. (42 finished, 12 under 3:00, 25 under 3:30, 42 under 4:00; hot and humid; from Roy Benson).

● **Atlanta, Ga., April 7**—Georgia AAU one-hour: 1. Mark Gibbens (25, Ga) 11 miles 1198 yards; 2. Greg Camp (26, Ga) 10m 1329y ... 13. George Crerar (40, Ga) 9m 430y. (26 runners, 6 over 10 miles; from Billy Daniel).

MIDWEST

● **St. Louis, Mo., April 1**—Gateway Arch 13.6-miles: 1. Rob Leutwiler (23, Mo) 1:09:44; 2. Bob Fitts (30, Mo) 1:11:12; 3. Robert O'Connell (24, Ill) 1:15:49; 4. Don Todaro (21, Mo) 1:15:58; 5. Carl Owczarzak (32, Kans) 1:16:27... 12. Jac Griswold (43, Mo)

1:24:34... Lorn Gwaltney (53, Mo) 1:33:44...
40. Amy Reichard (12, Mo) 1:51:00... 42.
Paul Ciaccio (66, Mo) 1:54:55. (50 finished,
6 under 1:20, 25 under 1:30).

7.3-mile: 1. Phil Davis (27, Ill) 37:38;
2. William Norton (19, Ill) 38:09; 3. Jeff Mil-
ler (16, Ky) 39:14; 4. Edward Heidbrier
(19, Mo) 39:29... 11. Ron Knowlton (40,
Ill) 42:15... 25. Paul Schmitt (50, Mo) 45:54
... 42. Lucy Kowalski (24, Ill) 50:45... 72.
Eugene Busen (61, Mo) 1:04:25. (77 finished,
20 under 45:00, 39 under 50:00; from Jerry
Adams)

● **Rochester, Minn., April 1**—Minnesota
AAU 25-kilometer: 1. Ron Daws (35, Minn)
1:25:45; 2. Steve Hoag (25, Minn) 1:24:26;
3. Scott Sundquist (19, Minn) 1:25:25... Tom
McAloon (40, Minn) 1:35:48. (from Jay Lucas)

● **Shawnee Mission, Kans., April 7**—Na-
tional AAU 25-kilometer: Open division—1.
Paul Talkington (Ohio) 1:22:37.4; 2. Philip
Ndoo (NM/Kenya) 1:23:12; 3. Dennis Williams
(NM) 1:23:39; 4. Dan Shook (Ohio) 1:23:55;
5. Terry Ziegler (Okla) 1:25:23; 6. Bob Fitts
(Mo) 1:25:37; 7. Chuck Ceronsky (Minn) 1:
26:45; 8. Joseph Skaja (Minn) 1:26:47; 9.
Chuck Koeppen (Ind) 1:27:07; 10. Jeff Brain
(Minn) 1:28:38. (41 finished, 12 under 1:30,
29 under 1:40).

Junior (under-20 division)—1. Keith
Brown (Ohio) 1:23:45; 2. Dennis Katzer
(Nebr) 1:34:06; 3. Stewart Mowry (Kans)
1:35:21. (6 finished).

Masters (over-40) division—1. Hal Hig-
don (Ind) 1:28:47; 2. Steve Goldberg (Ill)
1:30:58; 3. Dave Waco (Cal) 1:34:04; 4.
Robert Coffey (Tex) 1:36:55; 5. Arne Rich-
ards (Kans) 1:39:54. (13 finished, 6 under
1:50; from Carl Owczarzak).

● **Lawrence, Kans., April 21**—Kansas
Relays marathon: 1. Terry Ziegler (Okla)
2:21:15; 2. Tony Brien 2:26:01; 3. Rob
Leutwiler (Mo) 2:26:28; 4. Robert Busby
(Mo) 2:30:04; 5. Jim Hays (Kans) 2:31:02;
6. Tim Hendricks (Nebr) 2:32:04; 7. John
Bramley 2:33:08; 8. (unidentified) 2:33:34;
9. Roberto Rosales (Kans) 2:34:25; 10. Ken
Katzer (Nebr) 2:34:26. (96 finished, 48 un-
der 3:00, 69 under 3:30, 85 under 4:00;
rainy weather; from Harold DeMoss).

SOUTHWEST

● **Pueblo, Colo., April 14**—Rocky
Mountain AAU 25-kilometer: 1. Tom Ber-
ger (22, Colo) 1:33:25; 2. Don Morris (36,
Colo) 1:33:53... 5. Frank McCabe (54,
Colo) 1:44:01. (13 finished; D. McMahill).

● **Tulsa, Okla., April 14**—Oklahoma
AAU 15-kilometer: 1. Terry Ziegler (22, Okla)
49:18; 2. Terry Lewis (21, Okla) 49:43... 5.
Tom Kempf (48, Okla) 57:15... 13. Bob Mar-
tin (52, Okla) 1:04:42. (17 finished, 3 under
55:00, 6 under 1:00; from Vern Whiteside).

● **Houston, Tex., April 14**—Gulf AAU
25-kilometer: 1. Brian Harrington (26, Tex)
1:31:52; 2. Dennis Matheson (34, Tex) 1:34:
29... 6. John Stowers (44, Tex) 1:41:12... 9.
Bill Eppright (52, Tex) 1:50:16... 14. Clyde

Villemez (61) 2:09:17. (18 finished, 5 under
1:40, 8 under 1:50; from Pete League).

WEST

● **Agana, Guam, April 7**—San Miguel
marathon: 1. John Uson (15) 3:16:16; 2.
John Houlette (17) 3:27:45... 4. Joe Shea
(42, Thailand) 3:50:35. (7 finished, all under
4:00; low-80s and humid; from Joe Lawton).

● **Maui, Hawaii, April 8**—Hawaiian ma-
rathon: 1. Gordon Haller 2:39:14; 2. Johnny
Faerber 2:41:13; 3. David Cadiz 2:42:33; 4.
Reuben Dias 2:43:15; 5. John Hayes 2:48:09
... 8. Sam Bossetti (42) 2:58:46... 25. Caro-
line Miyashiro (Cal) 3:45:30. (25 finished, 8
under 3:00, 17 under 3:30, all under 4:00;
from T. A. de Lusignan).

● **Pasadena, Calif., April 15**—Southern
Pacific AAU 50-kilometer: 1. Bill Scobey 2:
52:24 (2:26:31 at marathon); 2. Carlos Alfaro
3:03:39 (2:33:50); 3. Bill Anderson 3:11:59
(2:41:43); 4. Doug Sailors 3:14:00 (2:42:00);
5. Dave Russell 3:17:23 (2:46:34); 6. Dave
Parker (40+) 3:18:25 (2:48:35); 7. Dave Waco
(40+) 3:18:25 (2:48:35)... 24. Linda Bottlik
(10) 4:41:22 (3:54:28). (25 finished, 12 under
3:30, 17 under 4:00; from Stan Rosenfield).

● **San Luis Obispo, Calif., April 15**—
Laguna Lake marathon: 1. Keith Jeffers (25,
Cal) 2:36:44.6; 2. Rich Peterson (35, Cal)
2:45:16; 3. Roberto Lopez (25, Cal) 2:47:05
... 13. Roy Coy (40, Cal) 3:24:41; 14. Don-
ald Zarin (53, Cal) 3:35:03... 20. Jana Ellis
(Cal) 4:54:06. (21 finished, 10 under 3:00,
13 under 3:30, 16 under 4:00; from Brian
Waterbury).

● **San Diego, Calif., April 21**—Mis-
sion Bay 15-kilometer: 1. Bill Gookin (40,
Cal) 49:28; 2. Mark Bringas (18, Cal)
49:30; 3. R. Barnard (20, Cal) 50:40; 4.
F. Veliz (22) 51:25; 5. B. Monzingo (34)
52:06... 13. Nadia Garcia (19, Cal) 55:02.
(110 finished, 11 under 55:00, 32 under 60).

● **Honolulu, Hawaii, April 21**—Ha-
wii Masters 15-kilometer: 1. Johnny Faer-
ber (Hawaii) 52:44.4; 2. Dave Cadiz (Ha-
wii) 53:05; 3. Tom Sturak (40+, Cal)
56:51... Norman Hansen (50+) 1:00:34
... Norman Tamanaha (60+, Hawaii)
1:09:31... Virginia Moore (Hawaii)
1:18:12... Noel Johnson (70+, Cal)
1:44:30. (from Bob Gardner).

INTERNATIONAL

● **Athens, Greece, April 6**—International
Classical marathon: 1. Colin Kirkham (Great
Britain) 2:16:45.4; 2. Kenji Kimihara (Japan)
2:19:09; 3. Paavo Hivonen (Finland) 2:19:22;
4. Doug Schmenk (US) 2:21:08; 5. Ron Hill
(GB) 2:21:29.2.

CANADA

● **Hamilton, Ontario, March 31**—Around
the Bay, 19.1 mile: 1. Jerome Drayton (Ont)
1:37:53; 2. Bob Moore (Ont) 1:38:08; 3.
P. Quance 1:38:54; 4. Doug Scorrar (Ont) 1:

42:57; 5. Paul Pearson (Ont) 1:44:02; 6. Art
Taylor (40+, Ont) 1:44:35; 7. Peter Lever
(Ont) 1:45:21; 8. Bill Allen (40+, Ont) 1:45:
39; 9. D. Anderson (Ont) 1:47:21; 10. C.
Beitz (Ont) 1:47:45. (78 finished, 11 under
1:50, 25 under 2:00; from Graham Knox).

RACE WALKS

● **Asbury Park, N.J., April 1**—Ron Zinn
Memorial 10-mile: 1. Ray Somers 1:15:27;
2. Ron Daniel 1:17:25; 3. Howie Palamarchuk
1:17:43; 4. Ron Kulik 1:24:21; 5. John Fred-
ericks 1:24:58... Stella Palamarchuk 1:52:00.
(35 finished, 10 under 1:30; from Elliott Den-
man).

● **West Long Branch, N.J., April 15**—
Eastern Regional AAU 50-mile: 1. Steve King
(England) 8:42:35; 2. Elliott Denman (NJ)
9:13:03; 3. Rich Pleffner (NY) 9:42:52; 4.
Don Johnson (NJ) 9:57:31; 5. John Markon
10:14:00; 6. Bruce MacDonald (NY) 10:20:
40; 7. Bib Hornek (NY) 10:24:30; 8. Luis
Montes (NY) 11:58:47; 9. Vincente Maceira
(NY) 11:59:26; 10. Rolando Maceira (NY)
11:59:42.

● **Santa Barbara, Calif., April 15**—Na-
tional AAU 20-kilometer: 1. Bill Ranney (Cal)
1:34:15; 2. Jerry Brown (Colo) 1:34:37; 3.
Bob Kitchen (Cal) 1:35:02; 4. Todd Scully
(NJ) 1:35:14; 5. Ray Somers (NJ) 1:35:47;
6. John Knifton (NY) 1:36:13; 7. Bill Weigle
(Cal) 1:36:48; 8. John Henderson (Cal) 1:37:
09; 9. Floyd Godwin (Colo) 1:38:45; 10. Ron
Daniel (NY) 1:40:03.

11. Carl Swift (Cal) 1:40:23; 12. Pete
Van Arsdale (Colo) 1:40:23; 14. John Kelly
(40+, Cal) 1:41:05; 14. Dan O'Connor (NY)
1:41:51; 15. Jim Bean (Ore) 1:42:18; 16.
Ron Kulik (NY) 1:43:42; 17. Rudy Haluza
(40+, Cal) 1:43:20; 18. Mike DeWitt (Cal) 1:
44:30; 19. Mike Ryan (Cal) 1:44:10; 20.
Wayne Glusker (Cal) 1:44:30... 33. Chris
Clegg (50+, Cal) 2:05:37. (39 finished, 27 un-
der 2:00; from Martin Rudow).

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RUNNING SHORTS

● Jack Anderson, the nationally syndicated columnist, departed briefly from his political dirt-digging in Washington recently to paint a picture of American exercising habits. He quoted a survey by the Opinion Research Corporation of Princeton, N.J. The President's Council on Physical Fitness commissioned this poll (which was alluded to in this issue's editorial).

From their sample, the surveyers projected that 60 million American adults are exercisers. Anderson didn't make clear in his column how often or how vigorously one had to work out to be counted.

At any rate, nearly three-fourths of these people said they were walkers. More than 10%—6½ million individuals—are supposed to be runners, according to this poll. That figure, if correct, is startlingly high.

Exercisers were asked why they do it. About half said they do so for cardiovascular health—"It's good for my heart," or, "I can breathe better." Another quarter listed weight control as the main motivator. The remaining 25% said they exercise for "enjoyment and relaxation."

The report concludes, "Men are somewhat more likely than women to exercise for reasons of (heart-lung) health or because they enjoy it, while women are twice as likely to exercise to lose weight."

● Kenneth Cooper, who had a big hand in producing these 6½ million fitness-fun runners, is offering three separate workshops at his Aerobic Center in Dallas this summer. The three-day sessions are packed with material for runners in general, and fitness instructors and medical professionals in particular. To fit it all in, two of the days' schedules start at 6:30 with an "aerobic workout" and don't wind up until well into the night. Included in the package is a complete orientation on the Aerobics Center and its programs, and personal laboratory (stress-test and body-fat evaluations) and field (12-minute run) testing.

Sessions are July 19-21, Aug. 16-

18 and Oct. 18-19 (the last being for physicians only). Write to the Aerobics Center, 12100 Preston Road, Dallas, Tex. 75230.

● Two years ago, Natalie Cullimore ran 100 miles in just over 16 hours. Few men and no women had ever run faster—or even that far. In the meantime, however, Natalie had suffered a depressing number of foot and lower leg disorders which may or may not be related to her ultra-marathoning. More than once she was in a cast.

But in March, 35-year-old Mrs. Cullimore ran another 100-miler in California. She won (there was one other finisher, four hours back of Natalie's 18:09:16). Officials were claiming she is now the only woman "ever to win a major road race open to men...and may well be the only person in the United States who has twice run 100 miles in less than a day." We can find nothing to the contrary.

● Ken Young of Chicago (see "Runner's Guide to Chicago" in this issue) also indulges in this sort of thing. He won the annual 100-miler at Rocklin, Calif., last year. Ken has a theory about training. At least he says it works for him.

Young figures that every long distance runner has a "collapse point" that relates closely to his training mileage. Ken figures this is one-twentieth of two months' total. Say a runner does 500 miles in two months. If his pacing is sensible, he should be able to get through 25 miles of a race in good shape. If he ups his training to 600 miles for that period, the collapse point extends to 30 miles, and so on.

Ken writes in the new *Runner's Training Guide*, "Before my 100-miler, my peak months were 450 miles and 490 miles. The collapse point works out to 47 miles, almost exactly where I 'collapsed' in that race." He says that once a runner reaches that point, drastic slow-downs or even dropouts are called for.

"I first met the collapse point on 30-40 miles per week during a 14-mile-plus workout, and only right at the end," Young says. "At the time I figured the only way to increase the distance was to keep hitting that point in workouts and going beyond. That proved rather painful and mentally too tough for the rate of improvement I wanted. It took me two years to increase my collapse point from 20 to 30 miles using this method. But since realizing the correlation between total mileage and collapse, I've added roughly 20 miles to my collapse point in 1½ years."

The obvious question is, "Why one-

twentieth of two months' mileage rather than one-tenth of one month's?" Young says this is because it takes 6-8 weeks to produce training effects—"i.e., two months rather than one."

He thinks the collapse point theory is "definitely the reason so many low mileage runners hit the wall around 20 miles of a marathon."

● A physiologist named George Mann has determined how quickly training works and how little it takes to maintain condition once it is gained.

Mann and his co-workers studied a group of 15 volunteers, training them with calisthenics and running to raise the pulse to 120, then interval-training them at heart rates of 60-90% of maximum.

In a six-week period, training five days a week on 60-minute sessions, the runners improved their work capacity by 35%.

Then they were studied for eight more weeks. But this time they worked out only one hour a week—either in two 30-minute sessions or three 20s.

One-fifth of the previous level of training maintained all the fitness gained earlier, Mann reported in the *Southern Medical Journal* (May 1971).

● Northern Californians are running into a problem that was predictable. There are more runners wanting to run races than there are workers wanting to officiate them. Two marathons in the area—both of which had fields over 300 in past years—are cancelling this year for lack of help. Dropped from the schedule are the Golden Gate race from Tiburon to San Francisco, and the Pacific AAU championship in Petaluma.

Golden Gate director Rich Perry said, "We needed a bare minimum of 20 people to put on the race. I tried for weeks to line up help, calling a number of running clubs and service organizations in the area. I got firm commitments from two officials."

● Added to the Road Runners Club Hall of Fame at Boston marathon were Ellison "Tarzan" Brown, two-time Boston winner; Victor Dyrvall, AAU champion at every distance from 10,000 meters to the marathon; James P. Henigan, 1931 Boston champ; Peter McArdle, 1964 Olympic marathoner; and Jerry Nason, historian of the Boston marathon. Nason, the only non-runner ever selected to the Hall, was flabbergasted. He says the longest run he ever made was when the press bus took off without him and he had to dash 175 yards to catch it.

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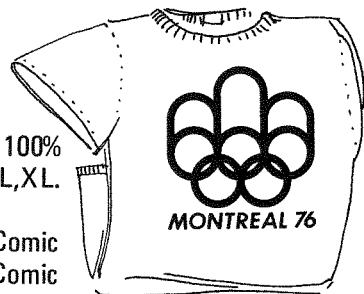
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READERS' COMMENTS

PRO CRITIQUE

I went to the Portland ITA (International Track Association) meet—out of curiosity like most others, I guess. It was sort of like going to see a friend in a play and then not knowing what to say to him after it's over.

The meet set out to avoid the pitfalls of a three-ring circus, but in doing so lost the excitement it so desperately needed.

The main problem was lack of quality performances. Track fans are not impressed by a man's credentials. They're impressed by a man's present performances. Bulky football players returning to track, former gold medal winners struggling to reach their high school bests. It leaves an impression of the over-the-hill gang.

*Janet Newman
Eugene, Ore.*

THE "INTERNATIONAL"

From a first-hand report (my wife competed), the recent first annual IAAF women's cross-country meet was an inspiring but perhaps humbling experience for our US team. The team's third-place finish—though representing good effort, all things considered—suggested some need for our qualifiers being in better if not comparable condition to that which enabled them to qualify some months earlier at our nationals.

With next year's qualifiers, I'd like to see a "fitness" trial be mandatory for the first six girls plus alternates. The trial could be held locally with official timing on a regulation track at three miles and be run sometime between March 1 and a week before departure date. Anyone not making a qualifying time of 16:30 would give up her spot on the team to the next-in-line alternate making the standard.

The international meet is big in Europe and will get much bigger now that it is under IAAF auspices. Can you imagine 15,000 spectators paying \$7 apiece to see a cross-country meet that was covered live on TV throughout western Europe? It is incredible that a US junior or senior men's team was not represented.

*Don Foltz
Monroe, Wash.*

MAYOR'S MESSAGE

Your article in the March issue of *Runner's World* ("A Place for Us in New York") and favorable comments from other New Yorkers encourages me to look for imaginative uses of city resources in an effort to improve urban life. Indeed, I am delighted with the increased use of Central Park since the inception of traffic restrictions. I fully intend to continue this policy.

*John Lindsey
Mayor
New York, N. Y.*

BACKTRACK

This is a simple plea. Return to what you were, a magazine about distance running. You have let go of a very unique approach to a wonderful sport by combining distance with track and field news. They are very different things and deserve separation. I've been so disheartened with your new magazine that I find myself re-reading my old issues and even going to the library to check out past issues. Please backtrack and get back on the trail.

*Michael Freeman
(address not listed)*

FOR THE RUNNER

I'm a track nut myself, but I find the prospect of *my* running a 30:00 six-mile infinitely more interesting than reading about someone else doing it in 26:00. For my money, I'm more interested in improving *my* running and exploring *my* physiological and psychological limits than following someone else's.

And while the accomplishments of the Frank Shorters and Lasse Virens can be exciting, I think veteran runners outrunning old age deserve just as much mention as world class runners outrunning other world class runners.

This "scientific and over-40 stuff," which Mike Tollefson criticizes ("Readers' Comments," April 73), is just what makes your magazine not only interesting but practical and valuable as well.

*Karl Stengel
Seattle, Wash.*

NEXT ISSUE: The nutritional feature scheduled for June definitely will appear in July. (The Boston Marathon took precedence this time.) Featured will be practical new findings which runners can translate into faster times.

NEW FRONTIER

Bravo and let's have more like the April issue of *RW*. True Sport types like to hear about High Sport—and Big Sport, even ("The New Frontier")—but not the dosages we've been getting.

Glad to see the wider geographic coverage, too. I was about to give up running because I didn't live in California.

*L. Lundy
Spooner, Wisc.*

The "New Frontier" symposium in the April issue was the best thing you've ever published. I say this, I guess, because I've always taken this approach to running. I didn't even know that I do transcendental meditation while running until I talked with an expert in it. My fastest and best running comes when I don't even know I'm running. I can suddenly realize I'm eight miles farther than I thought I was.

Wolves have been known to run at incredible speeds for 40 miles with no apparent purpose. This is no mystery to me. They just had the urge to run. Only man, horses and canids run for fun. And I suspect that man can have the most fun because he can move further out in the frontier of psychic running.

*Robert Crane
Vienna, Va.*

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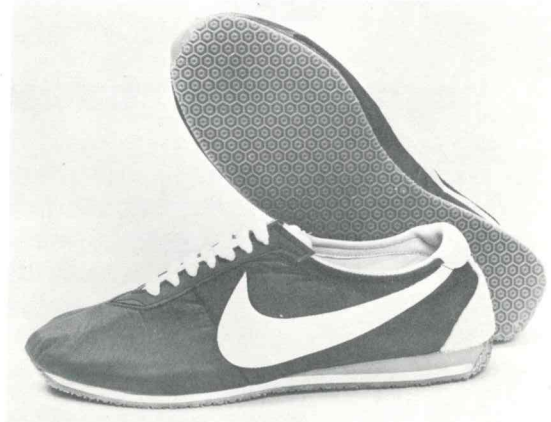
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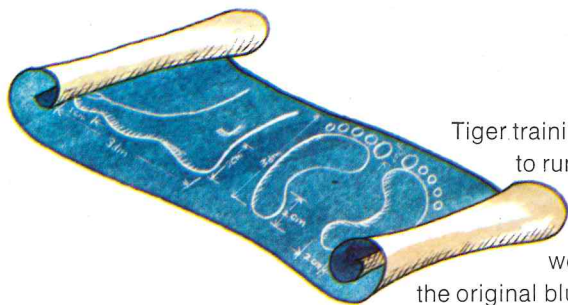
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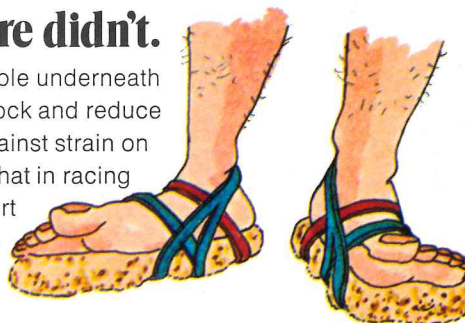
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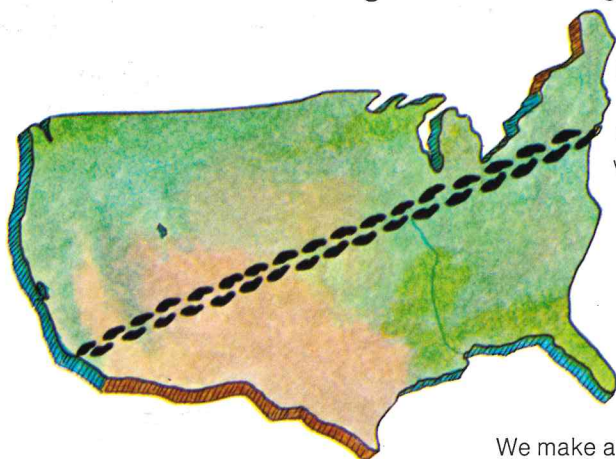
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