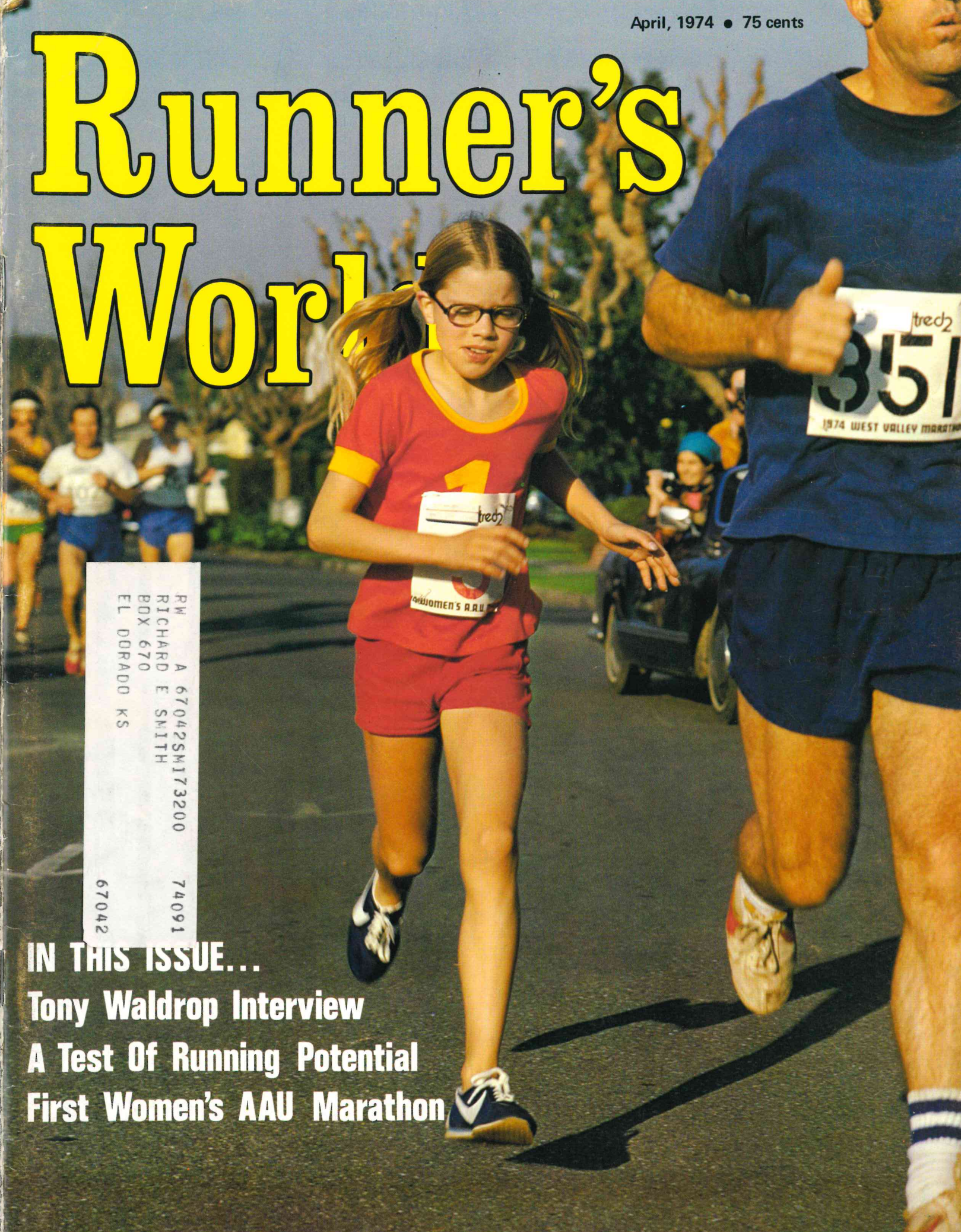


Runner's World



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IN THIS ISSUE...

- Tony Waldrop Interview
- A Test Of Running Potential
- First Women's AAU Marathon

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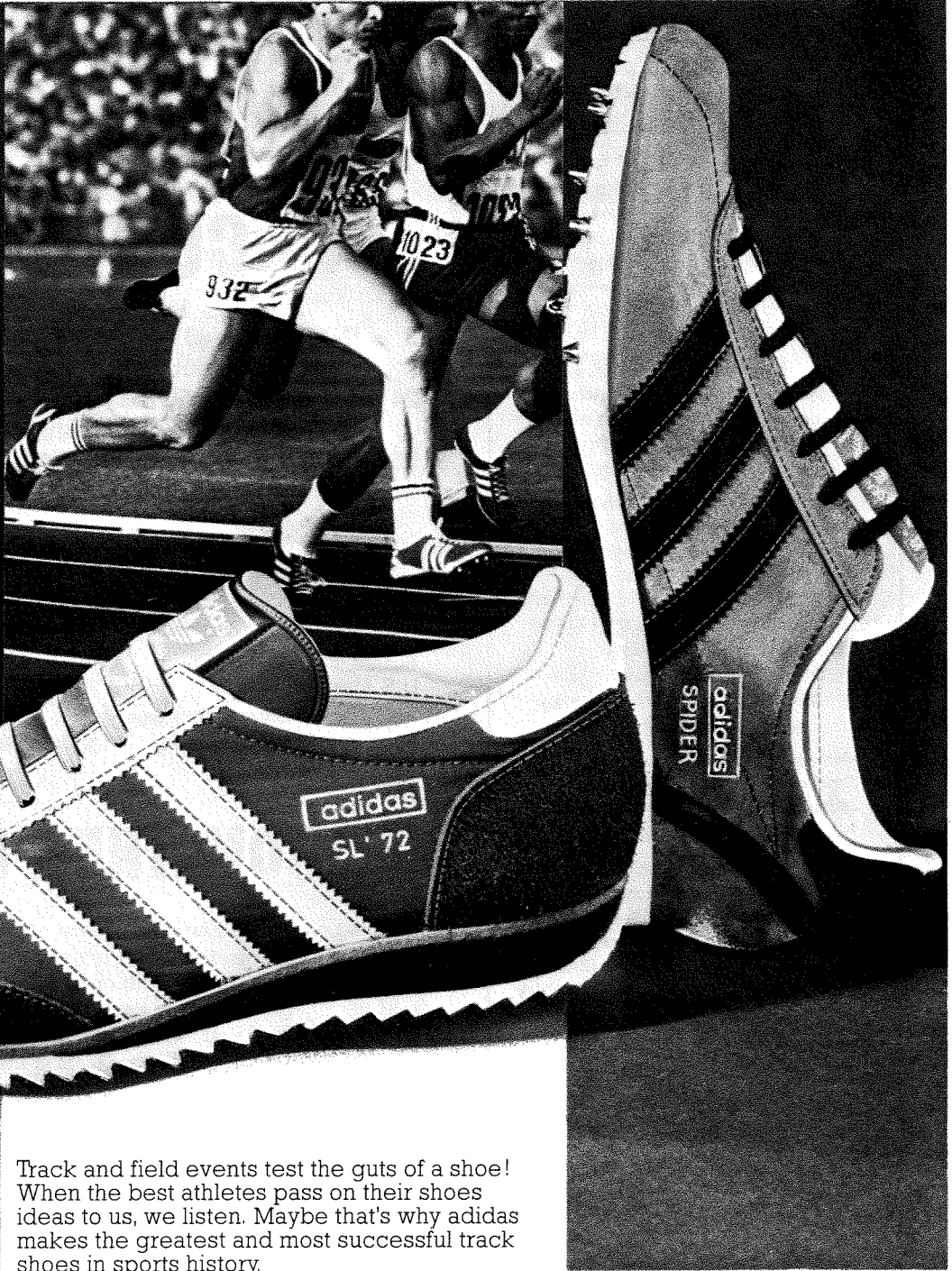
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RUNNER'S WORLD

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Volume — Nine April, 1974 Number — Four



COVER:
Mary Etta Boitano, 10 years old, was one of more than 60 female marathoners in the AAU's first women's championship. She placed fourth in 3:01. (G. Beinhorn)

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FROM THE PUBLISHER

We only moved into our present office on Dec. 1 and already we need more space. But we don't want to make another big move. Right now we are working out arrangements with our landlord to take another 5400 square feet next to us. This will give us a total of 10,800 square feet, and we should be okay for at least a year.

We are growing and we are pleased that we have come upon a magazine style that is working. We will never be interested in changing our overall style. However, we will continue to polish it. So many times a company grows and then forgets its customers. I have seen some excellent "personal" magazines go down the drain because the owners get greedy and forget about their readers.

We feel that as we go along we can gain from our growth instead of lose from it. Our readers will always be first on our list. The growth will just give us more money and talent to draw from.

Just this month we are starting magazine number five and we are really excited about it. It is *Soccer World* and it becomes our first team sport magazine. The game of soccer is one of a few team sports that keeps everyone moving. You just don't see an out of shape soccer player.

The sport is a booming one and we feel we can help greatly in the soccer movement now present in the United States. If you are interested in the magazine, I will gladly send you a sample copy on request.

Coming in July is *White Water World*. I have talked to many runners and bicyclists and they have mentioned some kayaking and canoeing trips they have taken. I have never gone myself, but after Rita (my wife) gave me a rubber raft (we also will cover rafting) for Christmas, Dave Prokop and I are very interested in trying it out. Write me if you also are interested in any of these sports.

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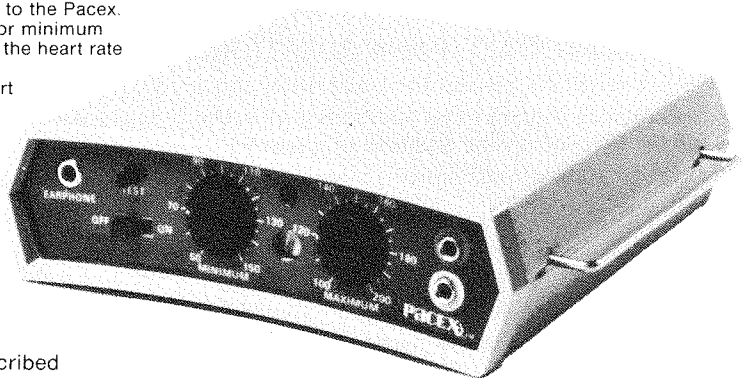
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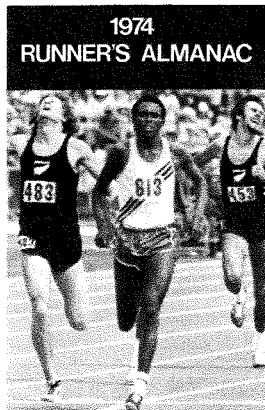
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Women who run are different from men who run—in ways other than the obvious.

The rules of exercise physiology, of training and racing techniques, apply almost equally to women and men. But the rules of society in general and athletic administration in particular split women and men into two camps—the male being pushed into strenuous sport, the female being held away.

Social influences, more than physical ones, shape women's role in running. The hardest thing for a girl or woman to do, says one of the booklet's contributors, is even to think of herself as a runner. The mythology lingers that this isn't the proper activity for her. Men don't face this. This is the biggest difference between runners of the two sexes.

The booklet centers on this and other significant differences, special problems and new opportunities of women.

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SUPPORT THE RACE WALKERS

Larry Young placed third in the 50-kilometer walk at the Mexico City Olympics, third again at Munich. He was looking ahead to something better at Montreal.

Young said right after the last Games (Nov. 72 *RW*), "I'd certainly like to try it again at Montreal. But it will be tough just to get there. A lot of young kids are coming up. Since Munich, I've received dozens of cards and letters from kids asking me for information about taking up race walking. One of them is liable to make it awfully tough in '76."

Young need not have worried about other walkers making it tough on him. He should have looked instead at non-walkers—the officials who right then were about to cut his race out of the Games.

That has been done now. There will be no 50-kilometer walk in the 1976 Olympics, and no race walking at all after that unless program-planners' minds are changed in a hurry.

"The officials are just looking for a scapegoat," Larry Young recently told a *Track and Field News* reporter. "Most walkers have accepted their traditional place at the bottom of the totem pole in track. But I, and a lot of other walkers, don't plan on just accepting this decision and doing nothing about it... As far as the decision-makers are concerned, the decision is final. But they're going to hear a lot of repercussions."

Of course the race walkers are upset at having their sport shot out from under them. They're crying out in protest of the decision. But let's face it, there aren't many race walkers. They can't make enough noise by themselves to be heard by the people who count.

Most of us reading this aren't walkers. We're runners, mostly long distance runners. We don't give walkers a lot of attention, perhaps even their fair share. *RW* hasn't given them much space over the years, perhaps not enough. But the walkers have been patient with us. They haven't asked for much glory, only a chance to keep walking. All they want is to be accepted, and this has always been an uphill climb for them.

Even if you don't care much for the action of race walking, you have to admire the race walkers themselves for the way they persist in the face of public ridicule and official apathy. Distance runners can feel closer to race walkers than they can to sprinters and hurdlers because they have traveled many of the same roads.

Walkers have won themselves many new supporters in this latest and hardest struggle. Not surprisingly, many of the supporters are distance runners who admire the way the walkers are fighting back against officialdom.

Now, almost a year and a half after the decision to drop the walks, sentiment for their reinstatement has grown to the point where it looks like a possibility. The feeling is that the decision was based on faulty logic and false economies, and that it should be reversed.

The International Olympic Committee's case is that the walks must go because (1) they're hard to judge; (2) the total number of competitors in the Games must be reduced; (3) walks are expensive and impractical to conduct; (4) participation is limited to a few countries, and (5) no one cares about the walks, anyway.

Walking's supporters contend:

1. Yes, the walks are somewhat hard to judge. However, look at the controversies of the last Olympics. Judges' decisions in basketball, gymnastics and diving all created bitter controversies. (There were no such squabbles in walking.) Does anyone mention eliminating those sports?

2. Harold Abrahams, a British athletic official, points out the nonsense of dropping the 50-kilo walk to trim the size of the Games. He says there were 41 entries in the race at Munich, 13 of whom also walked at 20 kilometers. At most, 28 competitors would have been eliminated. "Better we eliminate team sports," he sug-

gests, "and knock out a few thousand athletes."

3. Walks require not one special piece of apparatus, only an open road, whereas all other track and field events except the marathon take an entire stadium to conduct. It is that much harder to close a road for a few hours for a walk than for a marathon?

4. Every continent send walkers to the 1972 Games. The same can't be said of many other sports, which are virtually unknown outside of a few countries. True, only a few countries excel in walking, but isn't this true in most events and sports?

5. The walks are popular with spectators. In 1964, thousands of Japanese spectators lined the 50-kilometer course in a pouring rain. In 1968, the close finish of the 20 kilometers brought bedlam to the stadium. In 1972, the stadium remained filled until the last few 50-K walkers finished in the dark. The walks not only are appealing, they're among the very few events that spectators can still see for free.

The weight of evidence is clearly with the walkers. *Runner's World* strongly supports them, and opposes any move to eliminate them from the Olympic Games. We back all legitimate attempts to get both walks back in the Olympic program to stay.

One such move is picking up speed in Canada. We wrote of it in January ("Looking at People"). It took the form then of a resolution from a group headed by Bruce Kidd to the Canadian Track and Field Federation (CTFA). It called for the CTFA's efforts to reinstate the 50-K—or, failing that, to sponsor a world championship 50 in connection with the Montreal Games.

"I'm happy to report," Kidd says, "that our resolution was accepted by the national body. So all we have to do now is ensure that it is carried out. At the moment, the best insurance of this is to publicize all over the world the CTFA'S resolve to hold an unofficial Olympic 50-kilo if the IOC doesn't change its mind."

To help the decision-makers change their minds, send notes of support for the walkers to *RW* (Box 366, Mountain View, Calif. 94040) for forwarding to the International Olympic Committee. You'll be helping the Larry Youngs of the world get what's rightfully theirs.

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NEWS AND VIEWS

What It's Worth

Through the years, I've met a great many people who feel the same about running as I do about knocking a small white ball through the countryside with a metal-tipped stick, or banging a soft rubber sphere against a wall. In short, no matter how healthy, enjoyable, or inherently rational a particular activity is argued to be, such evidence hardly ever wins converts, and usually serves merely to reassure the participant that he is not the idiot his critics claim him to be.

In fact, at some moment or other, practically every practitioner of a sport draws back appalled and realizes that the critics of his activity could be right. That he *is* just staggering towards a finish line in a state of utter nausea, wearing underwear and foaming at the mouth.

For most of us, insanity generally creeps back and excuses are found. It's a wonderful way of getting exercise... out in the wind and fresh air... a great social activity... meet lots of people ... you wouldn't understand if you haven't tried... Until the spasm of frightening objectivity has passed and one is once again ready to go out and run to glassy-eyed exhaustion, confident in the knowledge that there is really nothing like it, nothing at all.

I am sure that barrel jumpers, high divers, stilt walkers, and various and sundry other sportsmen feel much the same way. We do not run because it is necessarily a reasonable or logical thing to do. Rather, we pursue the activity because it is something we believe worthwhile, and that belief helps to create the fact.

Should medical science prove, contrary to popular belief, that running is actually unhealthy, I doubt that many of us, even those who *do* injure themselves, would stop because of it. Nor, for that matter, would we desist if legislated against (many states have laws, thankfully never enforced, prohibiting public endurance contests); if shown it produces passive and submissive individuals (which several psychologists have argued); or if afraid popular opinion won't accept it (show me a runner who has experienced

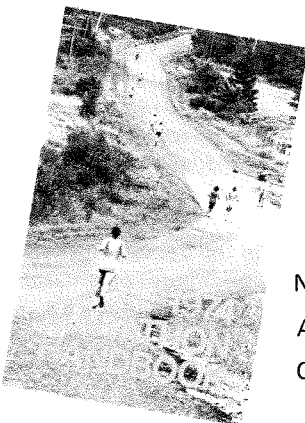


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no public scorn, and I will show you a wishful thinker).

Many runners react to outside criticism with knee-jerk defensiveness, possibly hoping that doing so will justify it to the world (not to mention themselves). This is surely a legitimate way of imbuing an activity with meaning, but one which, I feel, often makes for unnecessary frustration and confusion.

The pointless effort to trap life in a rational net instead of simply living it, with complete earnestness and sincerity, often stands in the way of full enjoyment and satisfaction. To my mind this is the same as the counsel of Ecclesiastes: "Whatever thy hand findeth to do, do it with thy might." And I think that William Blake was getting at much the same thing when he said that if the fool persisted in his folly he would be wise.

The great thing is not in arguing running's worth, but in keeping at it, and putting all you've got into it. And therein precisely does its worth lie.

From Garrett Tomczak

Double Pot-Luck

We are all familiar with the phenomena of ideas, poems and paintings floating across our oxygen-soaked brains when we

are out alone on a run. But then we go in to a slight oxygen debt and our memories go short. It's like being awakened during a dream. You can remember you were dreaming and you remember it was good, but you can't remember what the dream was about.

After one inspired run I remembered an idea I caught as it floated past at about 12 miles out. I geared down and jogged in, thus keeping my inspirations and elaborations intact. The idea is this:

Let's put on a road race or cross-country run for runners, for running's sake and by runners...cheap. Let's, as cooperating runners, provide ourselves with food, the kind of food runners like and need, and prizes that can be of some use. Call it a "Double Pot-Luck Road Race." There would be no cash entry fee but each runner would be required to bring lunch for himself and friends and family, and some sort of prize. After the race, we'd place all the food on one table and all the prizes on another for everyone to share.

Everyone could sample everyone else's cooking. There'd be some popular dishes and some unpopular, but at least everyone would be fed more than the usual coffee and donuts (not the best foods to replenish energy and nutrients lost in a hard race). Someone might bring cookies,

someone else a gallon of cider, a salad, sandwiches. All the runners could then sit together and eat together just as they came to run together. After they finish eating and talking about the race, the prizes would be awarded.

Prizes could consist of anything. I mean *anything*. Someone could bring a trophy won in some other race to be recycled while another runner might offer a new pair of shoes that don't quite fit, or a bicycle that the kids outgrew. Or perhaps a joke prize like a pack of cigarettes or a jar of vaseline, a pair of pink angora socks, a painter's hat...anything goes. I'm going to try my idea in New England this spring.

From Tom Derderian

True Believers

Some people think running is a pastime or a sport, but of course it isn't. As all dedicated runners know, running is a religion. Religions have traits that set them apart from the ordinary clubs or social groups. People may join a club with only a minimal interest in it, but a religion attracts True Believers.

Running's True Believer has his Bible: *Runner's World*. It is read rever-

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ently, carefully, and before drifting off to sleep. All issues are kept in a hallowed spot, and it is unthinkable that any should be given away. The rules of life are there, if one only hunts and meditates. If it's written there, it's *true*. If you don't accept that, you are already lost.

Of course this religion has its prophets. These men of great insight have dedicated their lives to helping the novice runner grow and understand. Sheehan, van Aaken, Selye. They tell us what to do and why.

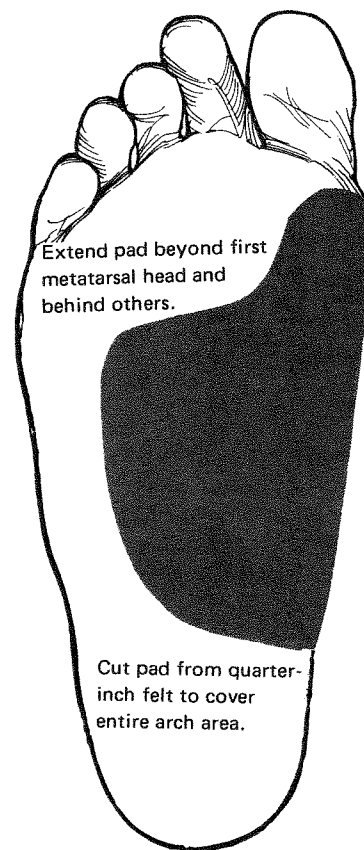
Religious rituals are important to put us in the proper frame of mind. They lead us by degrees to the act of worship. Can any runner start without first carefully taping, tuf-skinning, bending and breathing? Would he leave for a run without first anointing his body with holy vaseline? These rituals are all religiously attended to. There is no more prayerful pose in the world than that of a humble man leaning into the wall, head bowed, stretching.

The True Believer will let nothing stand in the way of his worship. The long weekend run is sacred. If it's cold and rainy, well, those are just pitfalls put there to test him. Heat, hills, blisters, pain; they serve the purpose of trying his soul to see if he is worthy. Nothing will stop him. He will run the "long one," preferably with other Believers, but alone if he must. This is the moment. All the short runs, the track workouts, the clean living, have given him strength, but it's on the long run that he comes face-to-face with the highest and best. He finds out if he has improved, if he can endure.

The runner seeks fellowship and communion with other True Believers at the club meetings; there people *really* understand and care. No problem is too small to elicit sympathy and advice. And for a real old-fashioned camp-meeting atmosphere, nothing can beat the high emotion and excitement of a race. Who has not come back from a race vowing to do better in the future, to re-dedicate himself to improvement and feeling repentant over his past sins? The True Believer knows he must avoid loose living and tight muscles. He will try harder to eat only health foods and be in bed by nine.

No religion would survive and grow without its missionaries, and there is no more earnest and passionate missionary in the world than a runner trying to spread the world and save a lost sinner's soul. A runner will explain aerobic conditioning, offer to take the uninitiated to a workout, in some cases even lend his Booklet of the Month. There is always great rejoicing over a new convert. Runners love their fellow man, at least if he's also a runner.

From Virginia Collins



Toe Trouble

In February ("Disaster at Little Big Toe"), George Sheehan described "Morton's Foot." Here, podiatrist Steve Subotnick outlines the treatment.

Morton's Foot is, as Dr. Sheehan points out, more common than generally recognized. In runners, this long second toe is often subjected to curling, which results in a painful blister on top of the toe and also at the end of the toe.

X-rays show increased bone density in the second metatarsal, which is associated with the extra load that metatarsal must carry during walking and running. The long second metatarsal is often subjected to stress fractures, and also is often the cause of painful callouses on the bottom of the foot beneath the metatarsal head. Many other foot and leg problems may also arise from Morton's Foot. Dr. Sheehan notes these adequately in his article.

Treatment of this structural deformity is not difficult. One simply must place a build-up under the first metatarsal head and have no corresponding build-up under the second metatarsal head (see diagram). This can be done initially simply by using quarter-inch felt. If results are satisfactory, then a permanent foot support can be made. We podiatrists have had success using either flexible or rigid appliances with an additional extension under the first metatarsal head for increased stability.

From Dr. Steve Subotnick

TONY WALDROP

North Carolina has played an unusually important role in the history of the four-minute mile indoors. It was back in 1962 that North Carolina's Jim Beatty, running for the Los Angeles Track Club, became the first man under four minutes indoors. This winter another North Carolinian, 22-year-old Tony Waldrop, became the first runner to make the feat seem positively routine.

Six times in approximately one month—from Jan. 19 to Feb. 23—the University of North Carolina senior broke four minutes, winning each time. The greatest number of indoor four-minute miles previously by an athlete in a season had been three. In San Diego on Feb. 17, Waldrop set a new indoor mile record of 3:55.0, breaking the old mark of 3:56.4 held jointly by Tom O'Hara and Jim Ryun. In fashioning his streak, he defeated such runners as Marty Liquori, Dave Wottle, Steve Prefontaine and John Walker, the new middle-distance sensation from New Zealand. And his times broke meet records held by such a galaxy of mile stars as O'Hara, Liquori, Kip Keino, Beatty and Ryun.

Tony Waldrop's list of sub-four minute miles (after a fourth-place finish in a two-mile in his first, and only other, race of the indoor season) reads as follows:

- 3:59.5—East Coast Invitational, Richmond, Va., Jan. 19.
- 3:59.7—Millrose Games, New York City, Jan. 25 (ending Marty Liquori's Madison Square Garden winning streak at 14).
- 3:58.9—Philadelphia Classic, Jan. 28.
- 3:58.3—Los Angeles Times Indoor Games, Inglewood, Calif. Feb. 8.
- 3:55.0—San Diego Indoor Games, San Diego, Calif., Feb. 17.
- 3:56.4—Atlantic Coast Conference championships, College Park, Md., Feb. 23.

At press time, Waldrop, a political science major, had one more indoor mile to run (in the important NCAA indoor championships in Detroit, Mich.) and a chance at still another four-minute mile.

RW: You've described your own involvement in running as being something that you do for fun. In one arti-

cle you were quoted as saying, "I've got no real interest in the Olympics whatsoever. If they held the Olympics tomorrow I probably wouldn't try out. I'm in this for fun because I like the people I meet and the places I go." Does that represent approximately the way you look at running and competition?

Waldrop: Yes, approximately so. But I'm like everyone else. I am a competitive person. I do enjoy competing and doing as well as I can—whether it be winning or doing as well as I can in the field. But having fun doing it is important to me, very much so.

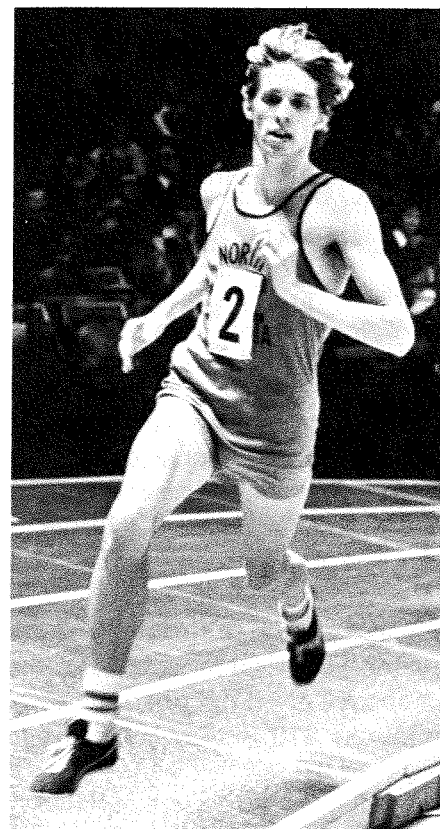
RW: Yet when one starts to produce one outstanding performance after another, as you've done, people start to expect this level of achievement each time out. Also, the press starts paying a great deal more attention, bothering you for interviews, constantly drawing your mind back to athletics. All this has a tendency to take away from the "fun" aspect of it. Has this happened in your case at all now that you've become a mile star on the indoor circuit?

Waldrop: No, it hasn't. There was one week where I ran in San Diego on Sunday (the world record race) and then I had a race the next Saturday in our conference meet. That week was a little busy. I had several people I had to talk to and everything. That was the only time it was bad at all.

But it wasn't pressure of any kind. It was just not having quite enough time to get to my schoolwork and talk to everyone else also. But being known by some of the papers now as a fairly good runner hasn't really changed a lot of things. I still think about running in the same light. It's still a lot of fun and it hasn't caused any additional pressures.

RW: How accurate is the statement that you're not interested in the Olympics whatsoever? I know you did try out in Eugene, Ore., for the '72 Olympic team. (Waldrop finished sixth in his 800 heat.)

Waldrop: Yes, I did. I was sort of reluctant to do so then. But my coach (Joe Hilton) and another person encouraged me to go ahead and try. But right now that's not something that's driving



The record mile. (Brad Mosher)

me on to keep running. That's not a long-range goal I have in mind. And you know, it's hard to say this far in advance whether you would or wouldn't (try out for the Olympics). But right now that's not something that I have my mind set on.

RW: Are you goal-oriented at all beyond simply going into races with the view of doing your best and trying to win?

Waldrop: Not really. My goals are just sort of abstract things like that. I think about doing as well as I possibly can, improving my times and things like that. But I don't set a specific thing in mind.

RW: Your next big indoor meet will be the NCAA indoor championships in Detroit?

Waldrop: Yes, that's right. That's the last one indoors.

RW: Now that you've run under four minutes six consecutive times, do you find yourself looking at it as a string. For instance, as you approach the Detroit meet, is there any thought in your mind that you must run under four minutes?

Waldrop: No. There were a couple



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of races where I wanted to run under four. The first race I was concerned with doing it just...not overwhelmingly, just that I felt it would be nice to run a sub-four indoors. And in the last one (the Atlantic Coast Conference championships) I sort of wanted to run it under four just so I could run in front of my teammates. I didn't get to run with my teammates all year and I wanted to run a good one for them.

But going to Detroit, the biggest thing will just be doing as well as I can in comparison to the other people. I feel that if the competition is good, there'll be a good chance that it's under four. But if it's not under four, that's not going to bother me. That's not what I'm worried about. It's placing in the race that's important.

RW: As far as I'm concerned, you were an excellent runner before this current indoor season began. Anyone who saw you win last year's NCAA indoor 1000 or finish second in 3:57.3 to Dave Wottle in last year's NCAA outdoor mile can attest to that. But what has happened this winter has really been extraordinary. What has brought it to this stage, what has brought it to this level of performance for you?

Waldrop: Well, I think it's a combination of things. One, I'm just older, physically and mentally, in relationship to my running. I have a good background: I trained all through the summer since I went to the World University Games (where he was second to Great Britain's Frank Clement) and I've had a couple of good years of cross-country. And I think the background there helps. And also I think the way that I train now...it's sort of evolved over the last two or three years and I think the way I'm doing it now makes a difference, too.

RW: Could you give us a description of the type of training you do?

Waldrop: Sure. I do much shorter mileage probably than most middle distance runners. I haven't been over 50 (miles) a week since the first week of cross-country last fall. The two weeks before that first cross-country meet, I was up around a 100 miles, but it just wore me out to the point where I didn't compete well at all in the meet. But what I do is usually one or two days of fartlek a week—aw, 8-10 miles, never more than 10. And I really do hard fartlek. I always sprint up hills and rest coming down. There's quite a bit of hilly places to run around here, so I always do it on hills.

RW: You do this on a cross-country course obviously.

Waldrop: Yes, there's three golf courses and there's other paths through the woods, and most of my fartlek is out in the woods or on a golf course. And as far as interval training, it's still not a whole lot. I usually run about five miles before I start an interval session on boards. Suppose I'm doing quarters. Week to week it will vary; I may be doing quarters, 220s, or halves. But just taking quarters for an example, I'll only take about 50 yards or a little less than 50 yards rest between each quarter—and the rest is a jog. So actually what I end up doing is running before I've recovered and trying to keep the time of each quarter basically the same.

I'm also a great believer in rest. If I'm tired, I'll go ahead and just do next to nothing that day. Or if I'm out on a run and I realize I'm tired, I may stop and walk in or something like that.

RW: Let me try to get a clear picture of your actual weekly training pattern. You run two fartlek workouts. How many days would you run straight interval work during the week?

Waldrop: Aw, one really hard day and one light day.

RW: You train twice a day?

Waldrop: No, I haven't done morning workouts since that first week of cross-country competition.

RW: That's interesting. I dare say you must be quite an exception to the rule. It seems that *everybody* who's anybody in national and international track trains twice a day. Why don't you do it? But I suppose you do train twice a day when you're doing straight stamina work, don't you?

Waldrop: Actually, the only time I've ever trained twice a day was my junior year during cross-country season and for two weeks this past fall just before the cross-country meet. I feel that the work I do in the afternoons is as much as I need.

As I said, during the two weeks before cross-country last fall I just tired myself out and I ran miserably in the first meet. It's also that I think that sleep is very important, too, and so I use the mornings for sleeping later than what I would otherwise. I enjoy running in the mornings sometime, but sometimes (laughing) it's a lot better just to stay in bed and sleep. I guess in a way I'm sort of lazy, too. But I feel the important thing is not that I don't do a lot of distance but that what I do is really hard most of the time.

RW: When you run quarters, for instance, how many would do you in a workout?

Waldrop: Well, for example, taking yesterday, which was a typical day, I did quarters-220s alternately and I did four sets of those. So I had four quarters and four 220s, which is not a whole lot but still (it's) pretty hard.

RW: What times would you try to hit in these 220s and quarters? You must be going awfully fast.

Waldrop: Not really, no. Under 28 and under 58. I start out about 26 and 56 and they stay just under 58 and 28.

RW: In terms of sheer speed, you're actually very fast, are you not, say, over a quarter-mile?

Waldrop: Actually, coach doesn't think of me as (being) exceptionally fast. He credits my teammate Reggie McAfee (3:57.8 for the mile) with having more speed than I have, and he thinks that I may have a little more endurance. I would disagree with him as far as the endurance goes, because Reggie works so hard that his endurance is much better than mine. But, you know, I'm a former half-miler so I do have a pretty good bit of speed.

RW: What have you run for a quarter-mile?

Waldrop: I've run just under 48 on a relay.

RW: Your running indoors this winter—and perhaps others have told you this—has been somewhat reminiscent of the way Dave Wottle runs—for instance, the very strong kick at the end. In fact, I feel you somewhat resemble Dave Wottle physically. Is that your plan generally—to stay back and kick at the end?

Waldrop: Yes, it is, when I know I have a really good field around me. For two years I always took the pace; I was always in front. And I found out that I was getting passed a lot in the end. But I think of my kick as different from Wottle's, a great deal different. Wottle is probably the miler I respect most. In fact, I'm sure he is, because he has such a tremendous acceleration. I don't have that acceleration. My finish is more drawn out over a whole quarter.

RW: Even after you'd started your series of indoor four-minute miles and had beaten such big-name runners as Dave Wottle and Marty Liquori, you still downgraded your own ability compared to theirs. Yet surely from the way you've been running, your confidence must be going up in leaps and bounds.

Waldrop: Well, I do have some more confidence in myself. The biggest thing is just gaining the experience of running

the mile indoors. But when I'm in a race against people I've always read about and never ran against, I'm not very confident at all. And I do lay back, although it's not a matter of confidence. It's just I feel that I run easier there now—not in the back but behind a couple of runners. You know the old saying how it's easy to get carried along (in a race) and that's really true.

RW: Certainly you have shown you can win on your finishing kick. I'm wondering just how much confidence do you have in your kick?

Waldrop: Aw, not a great deal. I'm not always sure I will have a fast finish. It's just a race-to-race feeling of how it's going to turn out. So I'm still leery in thinking, "Well, I can just wait and outkick 'em." It's still not something I have confidence in.

RW: You're a native of North Carolina. What's your hometown?

Waldrop: Columbus, N.C.

RW: What part of the state is that in?

Waldrop: That's in the western part of the state, just at the foot of the mountains. In fact, the county I live in, about half of it is on top of a mountain and half of it is down at the foot.

RW: What do your parents do? Are they farmers?

Waldrop: No, no. Their parents were and they as children were involved in farming. But my dad is a plant mechanic in Spartanburg, S.C., and my mom is a receptionist-secretary for an ophthalmologist.

RW: I've read somewhere that you

have a North Carolina accent—but I don't detect an accent. And I think the press also has presented you as a real country boy. I gather that's not exactly accurate—or is it?

Waldrop: Well, actually the country boy thing got carried a little bit away. I don't think of myself as a real country boy. You know, I'm a small-town boy. That's what it should have been. I do have somewhat of an accent. I have more of a North Carolina drawl than an accent. It's only apparent on certain words now. But when I'm at school, I just naturally talk one way and when I'm at home I talk another way. It's just fitting in with the patterns of the different areas.

RW: Let me ask you about the San Diego race where you set the world indoor mile record of 3:55.0. Was that a particularly good day for you or is that track—as many people have said—simply a very fast indoor track? Perhaps you could describe that race, how it went for you and how you assess it as a performance.

Waldrop: Well, I was a little leery about the race. I had just gotten back to North Carolina (after running in Los Angeles) and spent two or three days here. And then I had flown back to California. So I was a little tired just from traveling. And I wasn't sure that it was going to be that good a race. But I was sort of wanting to run there. I don't know why; I had a feeling that I would run well there.

As far as the track goes, I still can't tell a whole lot of difference in tracks. Of course, the wide curves are going to help some. They're easier to run.

But the race...I was expecting (Filbert) Bayi to be there and then he wasn't, which wasn't...you know, it would be nice to see how he runs, but then again (laughing) it'd be nice not to run him, too. But Larry Rose from the Pacific Coast Club really deserves a lot of credit for the race in that he set it up through the first half. He went ahead and carried the pace, and it was just a perfect pace, really. He went by in 59:1:59, I think it was. So he had really set me up. And after I heard the 1:59, I had a pretty good idea that I could lower my time. I didn't think that I would be down to 3:55. But I thought maybe I could run a little faster than I had in LA the week before.

So I decided to go ahead and take the pace. I guess if I hadn't run the other meets beforehand, I wouldn't have had the confidence to go ahead and take the lead. But when I did, I think I came by in about 2:59 at the three-quarters and finished up just about the same as I've been doing in other races—a 56 quarter, I

think it was. I felt really strong. I didn't have a great deal of spring but it was really a good flow.

RW: Of the six four-minute miles you have run this winter, which felt the best?

Waldrop: Probably the one in LA. I just felt good and strong that day. When I knew I had to move, I had plenty of pickup and acceleration. It was just a feeling I can't describe.

RW: That was the 3:58.3 in which you beat Steve Prefontaine and John Walker.

Waldrop: Right.

RW: It must have been interesting for you to meet John Walker because he was part of that world record 1500 in the Commonwealth Games.

Waldrop: Right, it really was. In fact, I did get a chance to talk to him about the race. He's really a friendly guy. I talked to him after the mile and I was interested in hearing how he felt about Bayi's style of running.

RW: A moment ago you made a very honest and frank remark that it would have been nice to meet Filbert Bayi in San Diego but it was also nice not to meet him. I take it you mean possibly one of two things, perhaps both: that he's obviously a great runner but he also obviously goes out at, shall we say, a rather unusual early pace.

Waldrop: (laughing): Right. In a way it would be interesting to run against him to see what it's like, the way he goes out—how you would do it, you know. One doesn't really know how they would run against him until they do it. Then again, you would have second thoughts running against someone

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so different in his tactics and some-one so very good. So, it was mixed feelings.

RW: People are now talking about a new era in miling. What happened in New Zealand and the way you've been running all these four-minute indoor miles is at the root of it. Some feel it's all pointing towards some truly super-human running in the next two or three years—and particularly in the '76 Olympics. I would assume you're not too wrapped up in such thoughts.

Waldrop: No, the Olympics themselves, it's not something I'm training towards right now. But it would be interesting to run against those guys. But still again it would be mixed feelings (smiling) so...

RW: There's an obvious question that must be asked when one assesses your running this winter: after all these fast times indoors what will you have left for the outdoor season? You have done a lot of hard running this winter. Do you think you can sustain this kind of form or may-be even improve it during the outdoor season?

Waldrop: Well, I'm...you know, I'm going to run this last indoor race, I'm going to take a good rest, I'm going to start off easy just running relays. But

you know, I really can't answer that. I don't know the answer to that. I would hope that... well, coach and I have talked and we think that the way that I'm training, I'll be able to come back and run good races outdoors. But it's...you know, I'm still leery about saying, "Sure, I'll be able to sustain it," because it's all so new to me to be running so well.

RW: Looking ahead to this year's outdoor season, are you going to point towards the NCAA championships, or are you thinking primarily of the AAU championships, possibly making this year's US AAU team?

Waldrop: Coach and I don't really aim towards any meet. When I go into each race, we don't talk about, say, "We'll run a certain time." I just go into the race and do as well as I can. He and I don't think of peaking for one race or another. We think of peaking as more of a mental thing than a physical thing. So, really, I won't be aiming towards any meet in particular but just every meet as it comes.

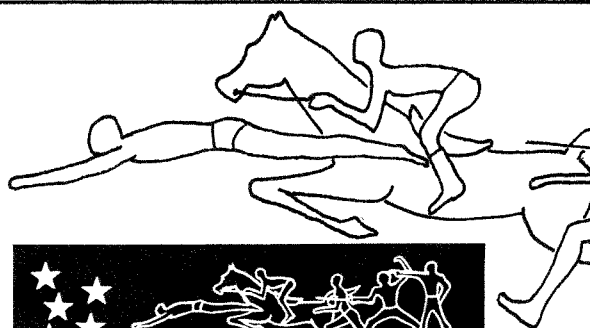
RW: One last question. With all the success you've had this winter, what have you particularly enjoyed about it and is there anything you haven't enjoyed about it?

Waldrop: I've pretty well enjoyed it all other than that one week where, like I said, I didn't have as much time as I would have liked to have had. But even that wasn't really that bad. I've enjoyed traveling for one thing, going places and meeting people and talking with them. And, of course, I've enjoyed running well. That was very important to me, too. I'm sure it would be to any other runner.

RW: Is there at least a part of you that has enjoyed your new role of athletic hero or star?

Waldrop: Not...I wouldn't describe it that way, no. I just enjoy knowing that I've done well. I feel sort of silly at times, when, you know, different statements are made—"Well, you've really run well this year," or someone may walk up to me and tell me how well I've been running. I'd rather still be thought of as another student here on campus.

(Late News: At the NCAA indoor meet in Detroit March 9, Tony Waldrop won the mile in 3:59.5, his *seventh* consecutive sub-four-minute mile indoors this season.)



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A year earlier, he was unknown in world track circles. Now Filbert Bayi of Tanzania is the fastest 1500 runner ever. He ran 3:32.2 in the Commonwealth Games.

(All photos by Mark Shearman)

THE COMMONWEALTH GAMES

For all but the Australians and New Zealanders, it was an out-of-season meet in a faraway corner of the globe. But evidence of the far-reaching running power of the Commonwealth (formerly British Empire, formerly British Commonwealth) was still quite obvious at these Games in Christchurch.

Though the meet was in January, quick scanning of the results shows:

- Filbert Bayi setting a world record for 1500

meters, with John Walker also under the old mark.

- Ben Jipcho running the second-fastest 5000 meters ever, after winning the steeplechase.
- John Kipkurgat doing the second-fastest 800.
- Ian Thompson getting the second-fastest marathon.

Eight-hundred meters through the marathon, it was an even better men's meet than the last Olympics.

Every winning Commonwealth mark except the 10,000 would have won at Munich.

But the drama of a meet is not captured in statistics alone. Here it involved Bayi and Jipcho getting better all the time; the startling emergence of the likes of Walker and Thompson; the fine runs of home-country athletes Walker, 10,000 winner Dick Taylor and marathon runner-up Jack Foster; Dave Bedford's losing bout with the 10,000; the coming of age of Africa's women; the sprint doubles of Don Quarrie and Raelene Boyle... the list goes on.

Bedford intended to go out fast and shake loose the opposition in the 10. Instead, he got into a showing match with three Kenyans and wound up fourth.

"I was going to have a fast 5000 meters and try to shake them off," he said, "but I was upset and couldn't get back into it. The three Kenyans were up to every antic in the book. One grabbed my shorts. It turned out to be Juma, and I shouted at him to quit it. Then Kiingi pushed me onto the grass, and I shook my fist at him. Mose was the worst. I had to restrain myself from hitting him. I lost my cool—and it lost me the race."

Affairs between a Kenyan (Evans Mogaka) and a Briton (John Davies) turned physical in the steeple-

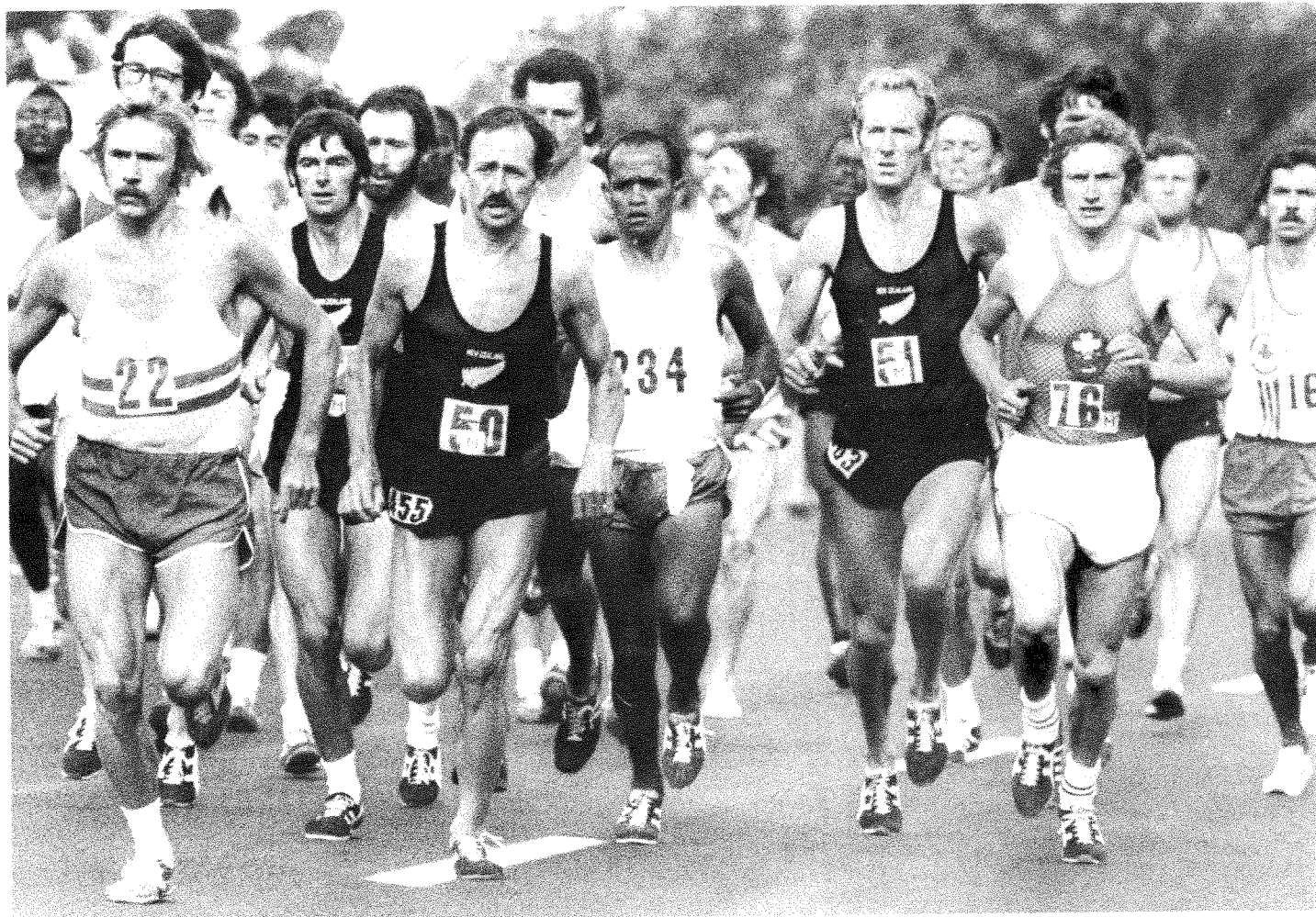
chases, too, with the two falling over each other in the last lap while another Kenyan, Jipcho was winning.

The East African men (Kenyans and Tanzanian Bayi) won every distance race except the marathon. And the women showed potential to something similar in four more years.

Sebina Chebichi of Kenya is 15 years old and her countrywoman Rose Tata is 14. Both made the 800 final, and Chebichi won a bronze medal in 2:02—eight seconds under her pre-Games best.

One African was missing. John Akii-Bua stayed home in Uganda with his ailing wife. In his absence, Alan Pascoe of Britain won the 400-meter hurdles. Pascoe then tried to do an "Akii-Bua"—a victory lap over hurdles. Pascoe fell over the first hurdle. Undaunted, he picked himself up and continued, only to fall again on the second hurdle. At that point, he called off his lap of honor. The delighted crowd had seen enough.

Ian Thompson (left, No. 22) starts history's second fastest marathon. Beside him (50) is Jack Foster, the veteran marvel who finished second in this one. (Mark Shearman photo)

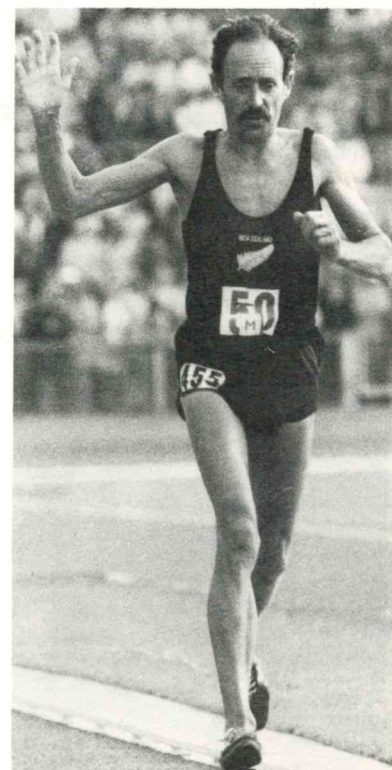




ABOVE: (l-r) Crouch, Dixon, Jipcho, Walker, Bayi sprint in the 1500 final.

LEFT: Kenyans Jipcho (left) and Mogaka lead the steeple. Englishmen Davies and Hayward follow in that order.

BELOW: Jack Foster's 2:11 marathon.

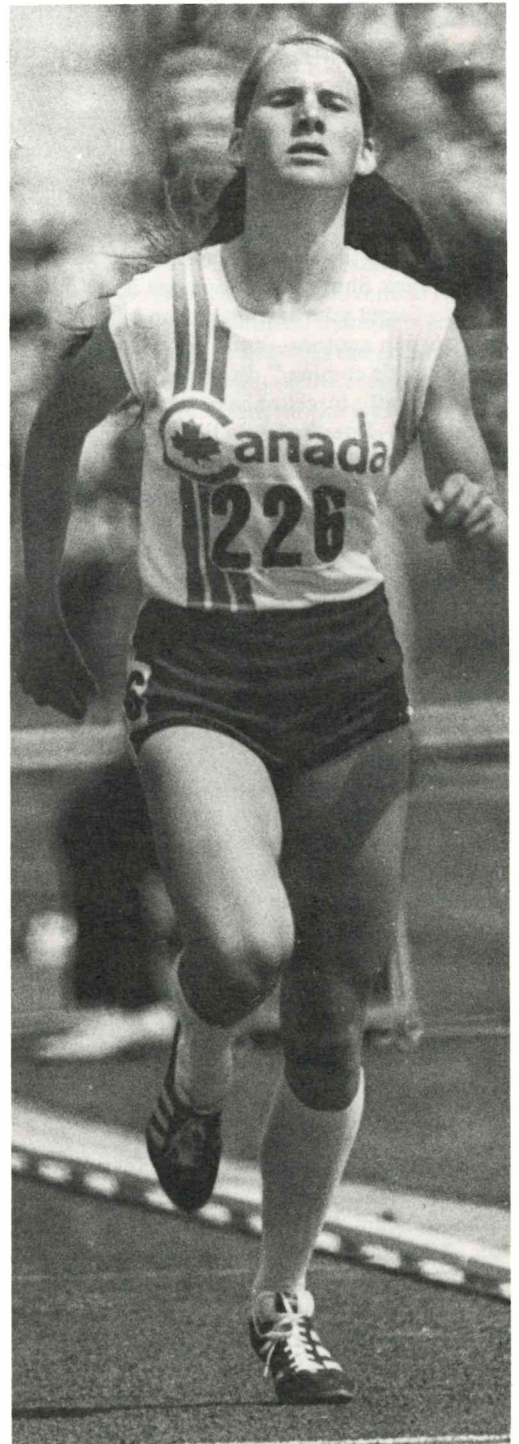




ABOVE: (l-r) Chebichi, Tata, Haden, Rendina and Crowley are upfront in the 800. Australian Rendina won the race in 2:01.

BELOW: Ben Jipcho's narrow victory over Brendan Foster in the 5000.

RIGHT: Glenda Reiser winning the 1500.



ADVANTAGES OF INEXPERIENCE

Ian Thompson, the 2:09 marathoner.

Experience in the marathon is an overrated commodity. The history of the event is rich with examples of runners scorching the courses their first time out, and there are nearly as many cases of runners never repeating their first flash of brilliance.

In marathoning, there's a lot to be said for innocence. Provided the runner is fit and tactically wise, he often is better off not knowing some things about the marathon. Better they come as a surprise than he worry about them too much in advance.

After the first marathon, innocence inevitably declines. Experience, good along with bad, is stored. The runner knows what's in store for him, he knows how to prepare for it, and he develops a reluctance to face the pain again.

Frank Shorter's famous line is, "You have to forget your last marathon before you can run another. Your mind can't know what's coming." But does a runner ever really forget once he's been through it? Does he lose a little of himself—his confidence, his eagerness, even his health—each time he goes through 26-plus miles at maximum effort?

Ron Hill has been running marathons for a decade. In 1970, he was the best in the world at it. He'd set his course for Munich, and had refined his techniques and narrowed his vision to the point where he was wasting no motion and seeing nothing but the painted lines aimed at Olympic Stadium.

Hill knew quite well what to expect in a marathon, and he was readying himself for that. He couldn't be bothered by anything else but that, and was honest enough to say so in the movie *Visions of Eight*.

As it turned out, Hill was a sad, struggling shadow of his 1970 self at Munich. He set a new course for the 1974 Commonwealth Games in hopes of redeeming himself there. He would split some more hairs to do it.

The trial for the Commonwealth team was the British national championship last October. Hill ran 2:13 there to make the team, but he lost to Ian Thompson. Thompson, who ran 2:12, was the picture of innocence beside Hill.

It was Ian's first marathon, in fact his first race longer than 10 miles. After his marathon, he told a reporter from the British magazine *Athletics Weekly*, "I never thought very seriously about mara-



Ian Thompson: "I prefer to remain in blissful ignorance of the opposition. That way I'm not frightened by anyone's reputation..."

thons until I was asked if I'd like to make up the team for Luton (his club) in this race. I just never considered the possibility of making the Commonwealth Games team. I honestly wasn't thinking of doing anything faster than 2:20. I'd have been well pleased with a time like that...."

Thompson, a 24-year-old teacher trainee, said he didn't bother reading athletics magazines. "I prefer to remain in blissful ignorance of the opposition. For much the same reason, I avoid watching athletics on TV unless a friend is running. That way I'm not frightened by anyone's reputation. If I'd known before the race that Hill was the second fastest ever, it might have eroded my confidence. Knowing it now merely boosts it."

While Ron Hill followed his carefully planned and secretive training program for the Games, Thompson did nothing out of the ordinary. He in fact has cut down his mileage in recent years.

"During the winters of 1970-71 and 1971-72," he said, "I built up mile-

age to 140 per week but repeatedly broke down. I now do about 100-120 miles per week, made up of three track sessions, fartlek/hills and one long run of 25-30 miles, aiming at sub-six-minute miling pace."

Now that Thompson had waded so deeply into marathoning waters the first time, would he be able to do the same again when he knew what to expect and what was expected of him? *Athletics Weekly* correspondent Cliff Temple said many Britons had already written Thompson off as a "flash in the pan." He was simply too new at this to win a major championship.

Hill appeared at the Christchurch race with a new time-saving wrinkle to his wardrobe—a backless vest. He wore this above his Union Jack shorts.

Thompson hadn't yet mastered the basics of taking a drink on the run. Temple reported, "There was a moment about 11 miles when you realized how new to the event Thompson is. He took one of the plastic water bottles handed out on the course, had a drink and then held it (the bottle) for several more strides as if he didn't quite know what to do with it. Finally, he threw it rather gently into the gutter, almost apologized for being a litterer."

A more experienced runner might have been bothered by the stomach upset that drink caused, or by the "slight twinges of cramp" in the opening miles, or the attack by a dog. None of this disturbed Thompson overly much, nor did the fact that he ran his first 10,000 meters in 30:15—just five seconds slower than his best on the track.

Thompson took the lead on the 12th mile and simply ran away from everyone else. "Everyone else" in this case included Derek Clayton, Hill, Jerome Drayton (all among the 10 fastest of all-time) and Jack Foster (soon to be in the top 10).

Cliff Temple, following the race in the press van, said, "My impression of Thompson was that of a man in a class apart."

Ian won by more than two minutes in 2:09:12—the second fastest time ever.

Ron Hill had won this race in 2:09:28—the second fastest ever—at the last Commonwealth Games. He came in 18th this time, limping badly from a heel injury.

Long experience doesn't seem to make marathons any easier.



Glenda Reiser

A TIGER IN KNEE SOCKS

Few runners have gone from novice to world class as quickly or dramatically as Glenda Reiser did in 1972. A year before the Munich Olympics, the Ottawa, Ontario, schoolgirl was a 16-year-old swimmer with an eye out for another sport ("In swimming there are so many kids that if you haven't done well by the time you're 15, you're all washed up, so to speak"). A year later she was an Olympian in track, chasing Russia's Lyudmila Bragina through a heat of the women's 1500 as both of them finished under the previous world record—the 29-year-old Bragina in 4:06.5, Glenda in 4:06.7 (the time still stands as a world junior record).

Munich turned out to be bitter-sweet for the blonde teenager, however.

She was eliminated in a tactical semifinal race when she was elbowed and forced to run wide the entire last lap by older, more experienced rivals. After a slow opening 800 of 2:17, Glenda finished seventh in 4:09.5. But she learned a worthwhile lesson which is reflected when she says now, "It's really sad to lose a race because you fooled around the first two laps."

Since Munich, Glenda's penchant for a brisk early pace has become as synonymous with her running as the white knee socks she always wears. Usually she will go in front forcefully from the gun. Her decisive victory in the women's 1500 at the recent Commonwealth Games was achieved in precisely this fashion. She ran the first 400 in 64.0 and the 800 in 2:10.6 to reach the gun lap 25 meters ahead. She was able to maintain this margin to the tape, winning in 4:07.8, her fastest since Munich.

Afterwards, the British publication, *Athletics Weekly*, said Glenda had "obviously learned something about front running from Lyudmila Bragina at the Olympics." But in running, tactics are rarely as important as the person using them. And as Glenda's coach Harry Kerrison puts it, "The main ingredient behind the success Glenda has enjoyed is her dedicated and tenacious attitude towards both training and competition. To put it in the colloquial, 'She is a tiger.'"

The daughter of a retired aerospace engineer with the Canadian Air Force, Glenda Reiser is now an 18-year-old science student at the University of Ottawa (she was second to Italy's Paolo Pignicacchi in the 1500 at last year's World University Games in Moscow). Under the guidance of Kerrison, who also happens to be executive director of the Canadian Track and Field Association, she trains on quality rather than quantity lines. She averages 40-45 miles per week, running once or twice a day. By comparison, her chief North American rival, US mile-1500 champion Francie Larrieu, usually averages about twice as much mileage per week.

Even Glenda's racing schedule is an example of quality over quantity. She races regularly only during the winter and summer. And even then she competes only twice a month, usually in national or international-caliber meets. Her normal racing range extends from 800 meters, where her best is 2:03.6, to the mile, where she set a short-lived world record of 4:34.9 last year. But her favorite distance is the 1500.

Glenda's training year is broken into four parts. October through November is a general endurance and strength buildup period, with the emphasis on

overdistance running and weight training. Most of the running is done on grass and trails. She also does a considerable amount of running on a beach and up a long, steep sand hill.

From November through the end of March, the emphasis in training is shifted to quality work for the indoor racing season. During this time, two-thirds of her training consists of interval running, both pace work and anaerobic work, on a 150-meter non-banked indoor synthetic track.

Following the winter season, Glenda spends about a month on general endurance training and relaxation. In May, she resumes quality training in preparation for the outdoor season.

Explains Kerrison: "While a modicum of endurance running is conducted on a two- to three-times-per-week basis, most of the training done throughout the summer is very specific in terms of pace. Each time a race is won and a personal best is created, the previous target is adjusted realistically (usually between one or two seconds improvement) and all of the competitive training is geared to this 'target pace.' As the season progresses, the length of the repetition runs is increased. Early in the season, repetitions are carried out at 100, 200 and 300 meters. But as the season progresses, repetitions of as high as 1200 meters are used, although shorter repetitions are also included for variety.

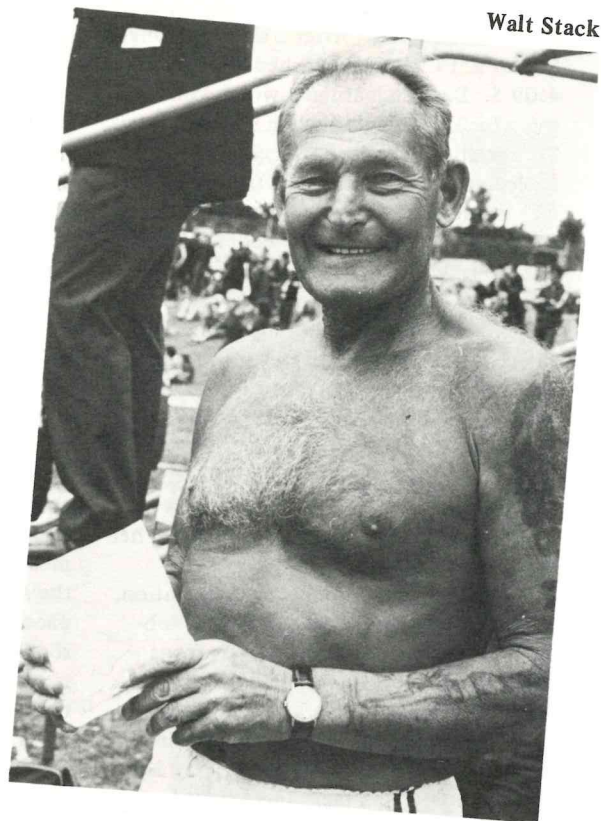
"As a rule of thumb regarding the number of repetitions or distance covered in a workout, it's usually twice her race distance approximately, or 3000 meters in total, exclusive of her warmup and taper-off.

"Generally, the emphasis in Glenda's training since she started running has been on specific pace work and learning to run greater and greater distances at a pace which would produce either a personal best or a local, national or world record for her in her event. Although she is not required to go through the emotional and total physiological fatigue and amount of work in each training session that races produce, the intensity and approach to running in almost every session on the track is kept as close to that of racing intensity as is wise and safe to do. Basically, this approach to training is similar to that used by swimmers wherein they are continually attempting to improve performances as recorded by the watch rather than relative to their training mates or next week's anticipated competition."

No wonder you can always expect a fast pace whenever Glenda Reiser is in the race.



Augie Escamilla



Walt Stack

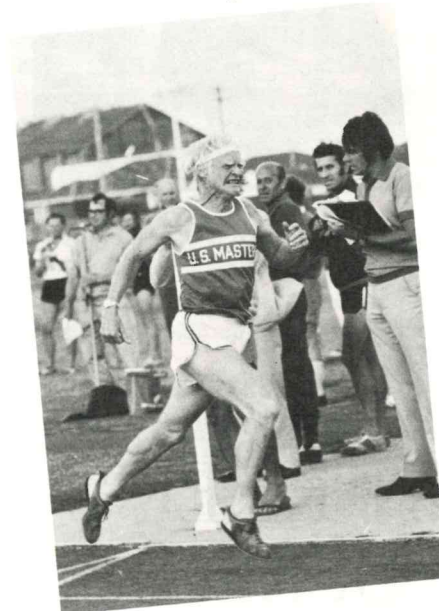


A group in Fiji

Ed Keysar



Norman Bright



U.S. MASTERS ON TOUR

Over the Christmas holidays, a party of 132 US and Canadian masters (ages 40 and up) athletes and their families toured the South Pacific. They competed in Fiji, Australia, New Zealand and Hawaii as part of the trip conducted by David Pain. These are highlights from Pain's journal of the tour.

Nadi, Fiji, Dec. 16: Although it is 5:30 a.m., and the sun is just rising over the jagged hills to the east, I am a victim of jet-lag, and accordingly, my body tells me it is one day earlier and around 10 a.m.

by David Pain

I see one team member disappear off down the country road, at a slow jog, and reflect on the moving experience our veteran track team is enjoying—travel to distant places, camaraderie with one's peers, and the anticipation of competition at a strange venue with an unknown adversary.

Yesterday was supposed to be a day to relax, after an all-night flight from Los Angeles to Fiji, some 11,000 miles, with a short stopover in Honolulu, but this

was impossible as we were greeted on our 5:30 a.m. arrival at Nadi by New Zealander Keith Williams, sponsor of our cross-country race in Auckland, and our Fijian host, both of whom wished to consult with us.

There was the usual hassle over lost luggage. Hal Wallace's javelin never got off the plane, and several pieces of baggage apparently are now enjoying their holiday in Auckland, Sydney or Melbourne. Some of us were a little shocked to see our brand new luggage being stacked four deep in an open-bed truck, with two bur-

ly Fijians standing atop the whole lot!

The exhaustion of the flight was dismissed, however, as some of our troupe started off in various directions for a good workout. Reports soon filtered back of runs to the beach four miles away, to a freshwater river, and the experience when caught in the usual afternoon rain shower of being invited into a Fijian home. The locals must have thought us quite mad, running ourselves silly in 90-degree heat (it is the height of the summer here) and 90% humidity. Shades of Mad Dogs and Englishmen!

Nadi, Dec. 17: Still adjusting to the time zone differential, but making headway.

After breakfast, we engaged buses and drove to the coast, where we boarded a motor cruiser bound for Vomo Island. Upon hearing the anchor rumble out at the island, the impulse for a swim in crystal-clear, 85-degree water was overpowering. My son-in-law, Nigel, and I dove overboard and swam to the beach 250 yards away. We then swam back to the boat. The Fijian captain was extremely upset, as he feared sharks might attack swimmers. The Fijians were particularly up-tight about sharks at the time, as 92 people were lost in a typhoon several days prior to our arrival and *no* bodies were found, it being speculated that the sharks ate the entire bunch.

Later in the day, we had our first track meet held in the town of Lautoka. The meet was conducted on a grass track laid out on a large playing field.

A jolly crowd of locals, estimated at several hundred, who cheered for friend and stranger alike. Larry O'Neil, George Braceland, Bob Long and other team members put on a race walking demonstration, which was greeted with a wave of spectator laughter when the walkers struck out accompanied by two Fijians, apparently full of local bitters, who manfully attempted to keep up—with little success.

As expected, the Fijians, mostly in bare feet, won all the races up to 1500. The feature race—the 5000—was supposed to have been between Ray Hatton and Fiji's national champion, nicknamed Mushroom. Unfortunately, Ray was more ready than Mushroom, who hung on for only the first three laps. Ray, in a fine sporting gesture, dropped off his own pace to pick up the rapidly failing local, but to no avail. Ray's winning time of 16:21 was exceptional in view of the fact that he had just left Bend, Ore., with 40 inches of snow.

The 1500 for runners over 60 was a fine race, with Bill Andberg and John Wall on Norm Bright's shoulder until the

final straight, when John and Bill pulled away in 5:12 and 5:13, with Norm third at 5:18. Besides the weather and track to contend with, the runners were distracted by numerous frogs that jumped about the track, assisted by our camera crew which deliberately planted the frogs in lane one to highlight their shooting of the event. On the finish line, Bright was last seen crawling down the track, desperately lunging for the elusive frogs.

In this small, poor country (although there is no unemployment the workers make about \$3 per day), almost anything from America is in demand. An example was our T-shirts and windbreakers. Although the T-shirts represent a day's wages and the jackets nearly a week's, the locals snapped up more than half of our stock, now sadly diminished. There are going to be some surprised US travelers in Fiji when they see locals all sporting US Masters attire.

Melbourne, Australia, Christmas Eve: Catching up on my writing since arriving in Australia six days ago from Fiji. We have competed twice, first in Sydney and then in Melbourne.

Wednesday the 19th, we bused to Randwick-Botony Club's new Tartan track for the competition. Unfortunately, the weather was inclement, with strong, gusty winds eliminating any chance of a record of even fast performances. Since it was a twilight meeting, it also grew quite chilly. The competition was close, however, with approximately 100 Sydney vets contesting the 50-odd US Masters.

Dave Power, former world class performer, proved the best of the field, running a good 15:23 5000m and in so doing lapped the field.

After the meeting we were all treated to sandwiches and beer, courtesy of the host club. As the beer flowed, international good will flowered, with athletes promising to come to Toronto in '75 for the world over-40 championships. T-shirts and Masters patches were broken out and a brisk business was done. The Aussies bought everything in sight.

On Friday, we flew to Canberra, the national capital, for a stopover and then on to Melbourne and the pending Australian veterans' championships. We learned that Melbourne had just that afternoon been struck by 82-mile-an-hour winds and rain.

In Melbourne, Wal Sheppard and his hardworking committee were tying up loose ends for the meeting. Wal's primary concern appeared to be our attestation of athletic virginity. Fortunately, we came supplied with certification from Olan Cassell of the US AAU, but we loud-

ly protested the antiquated athletic rules which require men 40 years of age and older to be simon-pure amateurs. The rule worked no hardship on our group, all amateurs anyway, but did prevent Ron Clarke, now 36 and anxious to get back into athletics, Merv Lincoln, Herb Elliot and Gordon Pirie (now a New Zealander) from competing.

Fortunately, our much-maligned AAU several years ago adopted a rule which permits any veteran to compete, regardless of his prior athletic status. Since in some six years we have not had one accident, we can assure other nations that their veterans are not going to turn into pillars of salt should they compete with non-amateurs, or ex-professionals.

The two days just prior to Christmas, we enjoyed excellent competition at the Box Hill Club. Competition in the first Australian veterans' championships commenced at age 30, which, somewhat to my surprise, did not detract from the other aspects of the meeting. This caused me to re-evaluate my thoughts as to the age at which veteran competition should begin. The outstanding performer in this meeting was, without question, Dave Power, 45, who won the 5000 (15:12) and 10,000 (31:42). Our best performer was 41-year-old Ray Hatton, who ran second in the 5000 at 15:19, and third in the 1500 with 4:15.

The competition was concluded with an outdoor reception, in which we were again provided with bounteous quantities of food, and plenty of Australian beer donated by a local brewery through the efforts of our local US Master Denis De Vallance.

During our stay, we also were guests on a television show viewed by a large percentage of the Australian population. Interviewed on this show, from our group, were Ossie Dawkins, Norman Bright and, the hit of the show, Walt Stack, whose earthy, outgoing language and personality made a most interesting evening. The next day, a number of us were stopped in the streets for comments of appreciation.

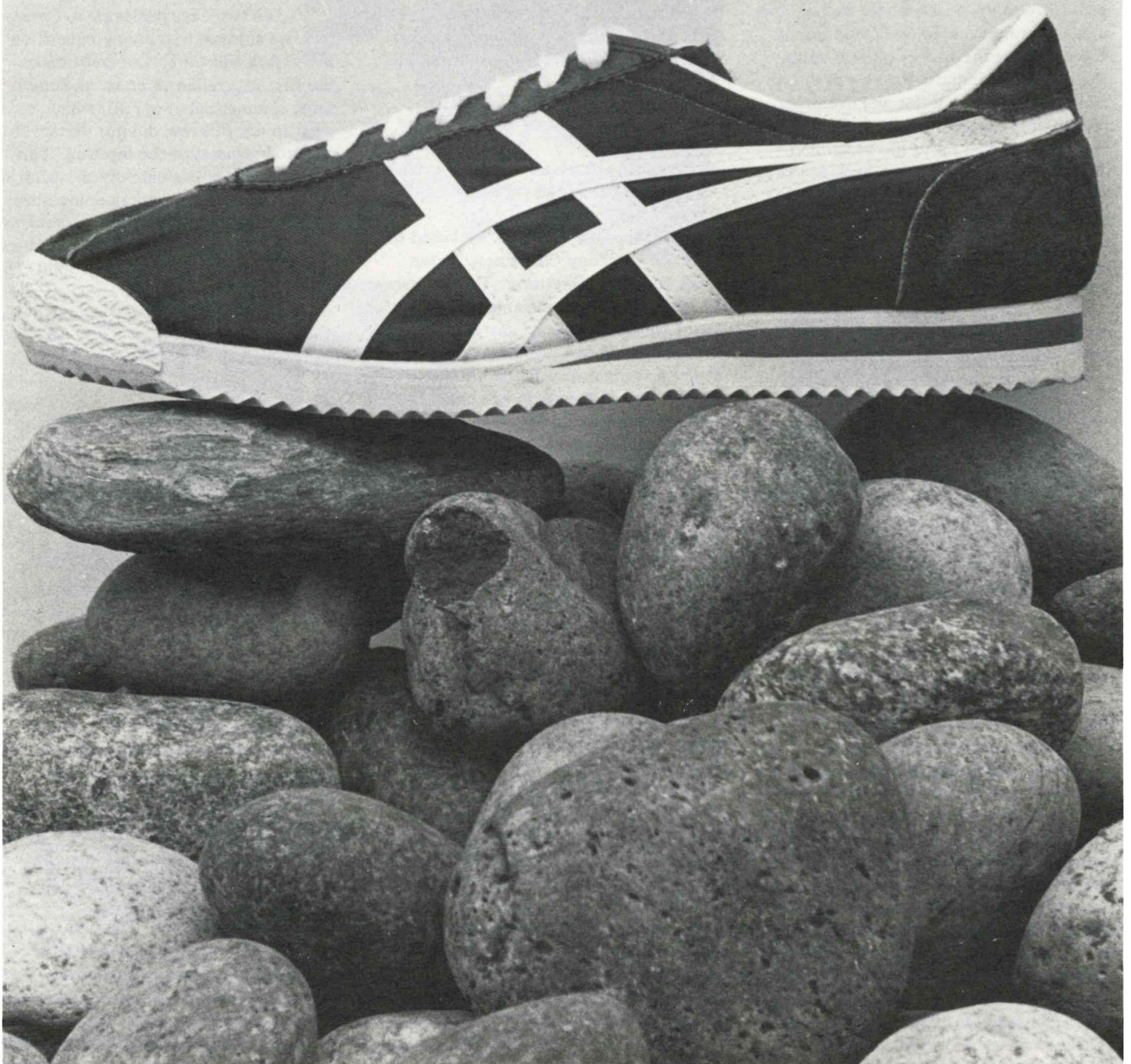
Melbourne, Christmas: Our host, Wal Sheppard, had gone to a great deal of effort in arranging that each member of our party of 132 be the guest of an Australian family during Christmas day. Our family of seven was the guest of Hal Dalheim, a Norwegian-turned-Australian who participates in the steeplechase and is also an accomplished orienteer. It was strange, even for southern Californians such as us, to enjoy Christmas dinner on a warm summer afternoon, preceded by

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U.S. MASTERS ON TOUR — continued

a swim in their backyard pool.

San Diego: I'm back home before I'm able to do the last of my writing (which I'd promised *RW* to do everyday, but couldn't quite manage) on this hectic and satisfying tour. This covers the New Zealand leg of it, in many respects the highlight of the trip.

The day after Christmas we left Melbourne for Auckland, where we were greeted by Peter Snell and Keith Williams, a local runner and official of Air New Zealand who was providing our transport through the South Pacific. Our group was immediately impressed by the beautiful environs surrounding Auckland, as well as the hospitality and friendliness of the New Zealanders themselves.

Here, our competition consisted of a 10-kilometer cross-country event. The course proved quite challenging, with substantial changes of elevation and fences to be vaulted. This park within the city is also a functioning farm, complete with cattle and sheep. This event was handily won by world class mara-

thoner Jack Foster, whose only real competition came from ex-British world record holder Gordon Pirie.

These two were followed, at some distance, by Ray Hatton, Bill Stock and Walt McConnell of the US team. The Americans appreciated meeting legendary coach Arthur Lydiard, who acted as starter and Peter Snell, who earlier had toured the course with members of our team. Following the competition, we all crowded into the local cross-country clubhouse for crackers, cheese and beer, and the presentation of awards. It was from this clubhouse that many years ago Lydiard took his initial steps in encouraging adult fitness. It was here where Bill Bowerman of Oregon experienced the indignity of being beaten by a man in his 70s in an exercise jog. This convinced Bowerman of the importance of personal fitness and resulted in the transporting of the Lydiard program to the United States.

The bulk of the team then flew to Hawaii for competition in the Hawaiian Masters Meet and 10-mile Mt. Tantalus New Year's Eve run. Unfortunately,

torrential rains virtually washed out the track and field meeting. The following day, however, was pleasant, although somewhat windy, and 40 runners tackled the Mt. Tantalus course. After three days in Hawaii, the group returned home.

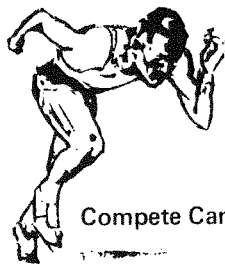
Thirty-six of us remained an additional 12 days on the South Island of New Zealand, where we climbed on—but did not reach the summit of—Mt. Cook and walked the world-famous Milford Track, one of the world's most beautiful natural areas. This trail may be traversed only upon making reservations and paying a fee, which entitles you to walk the track and spend the night at huts located one-day's walk apart. The number of people using the track is carefully controlled, a concept which might profitably be copied in the US.

We returned to Christchurch, where the week before part of our group had engaged in friendly competition with the Canterbury Veterans on the Commonwealth Games track. Once more, we competed in a local track meet, this time highlighted by the appearance of the Kenyan Commonwealth Games team. Then we had to dash to the airport for the first leg of our long return flight to the States.

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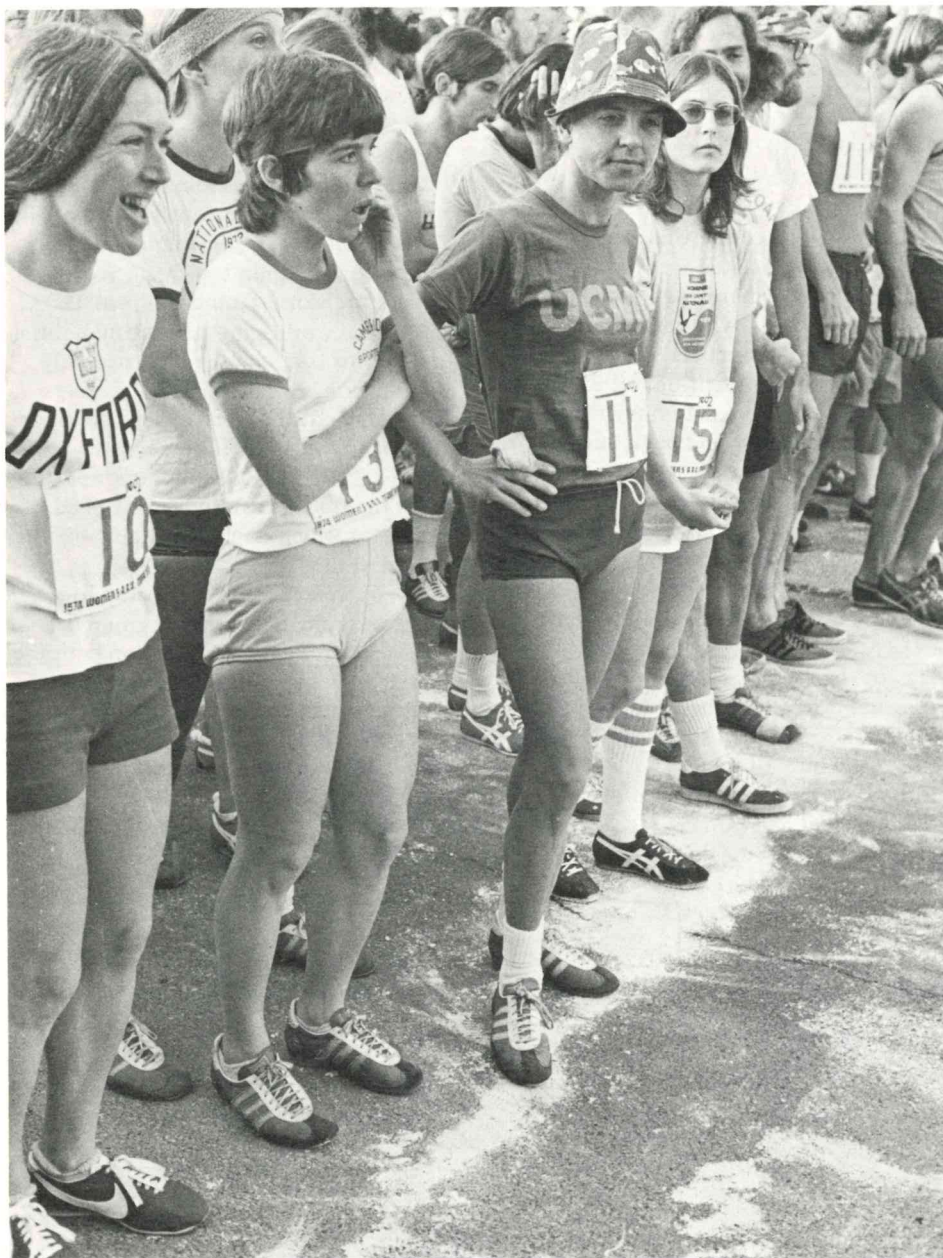
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(Left-right) Marilyn Paul, Jenny Taylor and Irene Rudolf all finished in the first 10 at the first women's AAU marathon. (George Beinhorn photo)

A HOT RACE FOR THE WOMEN

by Joe Henderson

A frosty bite is still in the air at nine o'clock. But the two women from the northeast have been in California long enough to know it won't last. By noon, the time they'll be needing cool air the most, it will be gone. The temperature will be in the 60s, and that is too warm for them, far too warm.

Nina Kuscsik is out here from New York for the AAU's first women's marathon championship. She has been the most consistent of the women marathoners year to year. Now she's worried.

In November, Nina had run a 10-kilometer race in Puerto Rico. It was 90 degrees that day, and she had collapsed. That experience, along with family turmoil afterward, had jolted her confidence. Friends from the east said she had cut her mileage in half and was having doubts about her future in running.

On Friday, two days before the marathon, she'd said, "I'm still scared of running. The race (in Puerto Rico) didn't hurt me so much. It was just that my head was mixed up."

"Are you ready for this race?" I asked her.

"No." It wasn't the coy kind of no that most runners give before races. It was a sincere, concerned one.

The other eastern runner, Jenny Taylor of Boston, said the women from her part of the country were grumbling over the awarding of the championship to a California city in February. The traveling distance wasn't so much a problem as was the timing. It would be hard for women from cold areas to train at all, and impossible for them to prepare for warm weather if they did train.

"Hell," said Jenny, "you can't expect us to come out and run well in weather like this. We can't heat train this time of year."

Jenny had run her only other marathon in the heat at Boston last year. She had finished third of the women, but had run to complete exhaustion and dehydration, and into the emergency room of Massachusetts General Hospital. A ruptured duodenum cost her a week in that hospital and six more weeks without running.

"I'm afraid of the heat," she said Friday at a press luncheon for the women.

"Jenny plans to run a sub-2:50 marathon," race director Dawn Bressie told the reporters.

"Retract that!" Jenny snapped. But she was still thinking 2:50.

If San Jose, 20 miles to the south, was once known as "Speed City," then San Mateo can now call itself "Marathon City."

The San Mateo-based West Valley Track Club has had more than 20 of its members under 2½ hours for the marathon. Two of the last three Boston marathon champions lived in San Mateo at the time—Alvaro Mejia (1971) and Jon Anderson (1973). The West Valley TC team won at Boston in 1972.

This San Francisco suburb sits in one of the world's liveliest road running areas, and it has a recreation department which (with the WVTC) goes looking for championships to sponsor. The men's AAU marathon was here last June. The men's national cross-country will be here in the fall.

San Mateo earned the right to have the women's marathon, even though its timing might have been better. The date was set by the West Valley open race, an event always run in February. The wo-

men would still be part of an established race this year, still running with the men.

None of them seemed to mind the mixed field. They'd always run it that way. One woman said, "Mind it? I love it. I'd much rather be running with 300 other people, regardless of sex, and having them help me along than to be running without another woman in sight. Maybe when we get 300 women marathoners, I'll want a separate race. For now, this is great."

They do have their own separate-but-equal starting line. Half the road is for women, half is for men—though the chalk-lines which said so have long since disappeared under shuffling feet.

It is apparent already that the women are the featured runners here. The women aren't going to get lost in the pack as had been feared. Instead, the 60 to 70 women are taking more of the attention away from 200-plus men, which is another argument for an eventual separate championship.

The field of women is more than twice as big as any other for a marathon. It doesn't have sub-3:00 runners Miki Gorman, Cheryl Bridges, Teri Anderson and Margie Norem. But it's a classy field just the same.

Judy Ikenberry of Crestline, Calif., is one of the sport's old-timers, though she's only 31. She ran a marathon in 1967, then didn't do another until her three children were out of diapers. Judy did three hours and five seconds at San Diego last year, then 2:54 this January.

"When people asked me how fast I ran there," she said, "I told them 3:54. They looked at me as if to say, 'What's so great about 3:54?'" After all these years, I still can't get used to saying 2."

Marilyn Paul, 36, of Portland had been on the way to sub-three time last fall when she strayed off the course. She later ran 3:05. Ever since then, I'd been getting warnings from friends in Oregon, "Look out for Marilyn Paul in the AAU!"

But she said, "One week before the AAU, I developed a stress injury in my right knee (that resulted in an accumulation of fluid under the patella), and I was unable to run at all for three days. In fact, I ran only seven miles during the week before this marathon. On the flight down from Portland, I was putting crushing ice on my knee. This was a severe psychological setback."

Peggy Lyman, 26, of nearby Palo Alto doesn't yet know her own strength. Before her first marathon, Peggy told another woman, "I think I'll go out in about nine-minute pace (almost a four-hour marathon) and see if I can hold it." Peggy ran 3:19. This time she said, "I'm

aiming at sub-three." But she wouldn't start as if she meant it.

These women, along with Nina Kuscsik (35) and Jenny Taylor (26), are typical of the people in the sport. They're in their 20s and 30s. Most are married and have families. Many have careers. Many started running distances only recently.

Mary Etta Boitano comes from the other extreme. She's 10 years old, young enough to be the child of many women in the race. (In fact, her mother Mary is in it). Mary Etta has grown up with running, letting her performances answer critics who wonder, "Oh, she's good now, but what will she be next year?" Each next-year has been better than the last.

She read of Lili Ledbetter's 3:03 marathon (Feb. 74 *RW*) and said, "That's what I want to do." It didn't matter that Mary Etta's best was 23 minutes slower. She wanted 3:03.

Each of the 60 or 70 women wants something as she started. Some will get it, some won't.

The five-mile course isn't pretty. Half of it winds through residential streets of San Mateo and Burlingame, the other half runs alongside the Bayshore Freeway.

It isn't a scenic place to run, but it's a good place to run fast. The biggest hill is a curb to be jumped in the last quarter-mile, leading to a ramp that goes down onto the track. Drinks and splits are easily and frequently supplied. It's a good course to run if you're running fast, because you always know where you are timewise. It's a terrible place to run after you've caved in—because you always know where you are.

It's always a good place to watch a race as it develops. The runners pass the start five times before going that long last stretch to the stadium. Few of the several hundred spectators leave the lap line until the leading women have passed 25 miles.

"I'm not interested in the men," says one man. "I came here to see the women run."

The crowd in the stadium is bigger after almost three hours than it was when Jim Dare won the open race a half-hour earlier. Dare is walking at a quiet end of the track. No one is chasing him for interviews. Nearly 50 men have come in since Dare. But those 50 combined don't get as much attention as the first woman.

"It's Judy Ikenberry!" the announcer shouts as she comes down the ramp. Judy finishes in 2:55, and has five still photographers, four reporters and three TV cameramen around her before she can pull off her Nikes and black knee socks.

She tells one reporter, "I've been

running for 18 years, and this is the first time I've ever won anything. I guess if a person keeps looking long enough, she can find something she can do." Then, in self-mockery, she says, "That's my sermon for today, folks."

Marilyn Paul finishes second in 2:58, only 11 seconds ahead of Peggy Lyman. It's the first time three women have broken three hours in one race. All three have paced themselves well. Ikenberry was fifth at five miles and didn't take the lead until halfway. Paul moved steadily up the places. Lyman ran two minutes faster than anyone else from 20 miles in.

Mary Etta Boitano runs even faster than predicted—3:01. She has passed her older brother Mike in the last mile. At this age, the sexes truly are equal in ability.

Nina Kuscsik is crying as she walks through the chute after finishing fifth. It's a cry of relief.

"I'm so pleased with today," she says, "and so glad I came. My friends in New York had to badger me to come. I know now that this is what I needed. It gave me back my confidence to know I ran this fast (3:05) when I was out of shape.

"I would never have forgiven myself if I hadn't come and had seen this was won in 2:55. I would always have wondered what I might have done, whether I might have won. This way I know. I'm so glad I came."

Jenny Taylor sits in the bleachers long after her race has ended. Despite the warm sun, she is shivering under a blanket as a result of the stress the heat and her own hot pace have put on her. A man pours water on her blistered feet.

Jenny had gone after her 2:50 marathon. She had led for half the race, before Ikenberry caught up.

"I'm not a talker when I run," Jenny says. "I knew Judy was trying hard to catch me. When she did, she ran up beside me and said, 'Hi, I'm Judy Ikenberry. Who are you?' I gasped back, 'Jenny.' She said, 'What?' I gasped again, 'Jenny.' 'Oh, you're Jenny Taylor, the one who finished third at Boston. I'm happy to meet you.' I grunted something at her. Then she took off. I still thought I could get second and decided that wasn't too bad."

After 24 miles, Jenny was still second. But she started to weave from dizziness. At 25, she veered into a van parked beside the road. She fell. A male runner picked her up. She walked. She walked onto the track and across the line, in front of all the people. Eight runners had passed her in the last mile, which took 24 minutes.

"It must have been the heat," Jenny says, not bitterly but with a smile.

If you train hard but don't reap the benefits, you might blame your parents.

CHAMPIONSHIP MATERIAL

Dr. Costill, author of a number of pioneering studies involving running physiology, directs the Human Performance Laboratory at Ball State University in Indiana.

Over the years a great deal of public attention and physiological effort has been directed toward superior endurance athletes. Our early studies with Derek Clayton, Amby Burfoot, Ron Daws and others served to illustrate the unique physiological qualities required for championship level performance in distance running. It is now common knowledge that distance runners possess a highly developed oxygen transport system and are capable of exercising at high rates of energy expenditure with little accumulation of blood lactic acid.

Following our studies of Clayton, the world's fastest marathoner, it became obvious that factors other than maximal oxygen uptake might play an important role in successful distance running. At the suggestion of an English colleague, Harry Thomason, we attempted to determine what laboratory measurements might be most accurate in predicting one's performance in distance running.

The subjects for our study were 16 runners from the Manchester-Liverpool region of England. Unlike in our previous studies, these men were not all of championship caliber. For example, the runners' best times for 10 miles ranged from 49 to 69 minutes. All of the runners were in good to excellent running condition, averaging 8-12 miles daily. In order to make comparisons between laboratory measurements and running performance, each runner was first tested on the treadmill at four different speeds during a maximal run. After this testing, the men competed in a 10-mile road race under nearly ideal conditions (flat course, no wind, 50 degrees, mist).

In an earlier study, we had reported that there was a very low correlation between maximal oxygen consumption and the runners' best marathon running time. Those observations were complicated by the fact that the runners' best performances were attained over different courses and varied environmental conditions. With these factors controlled, we found that oxygen uptake capacity was highly

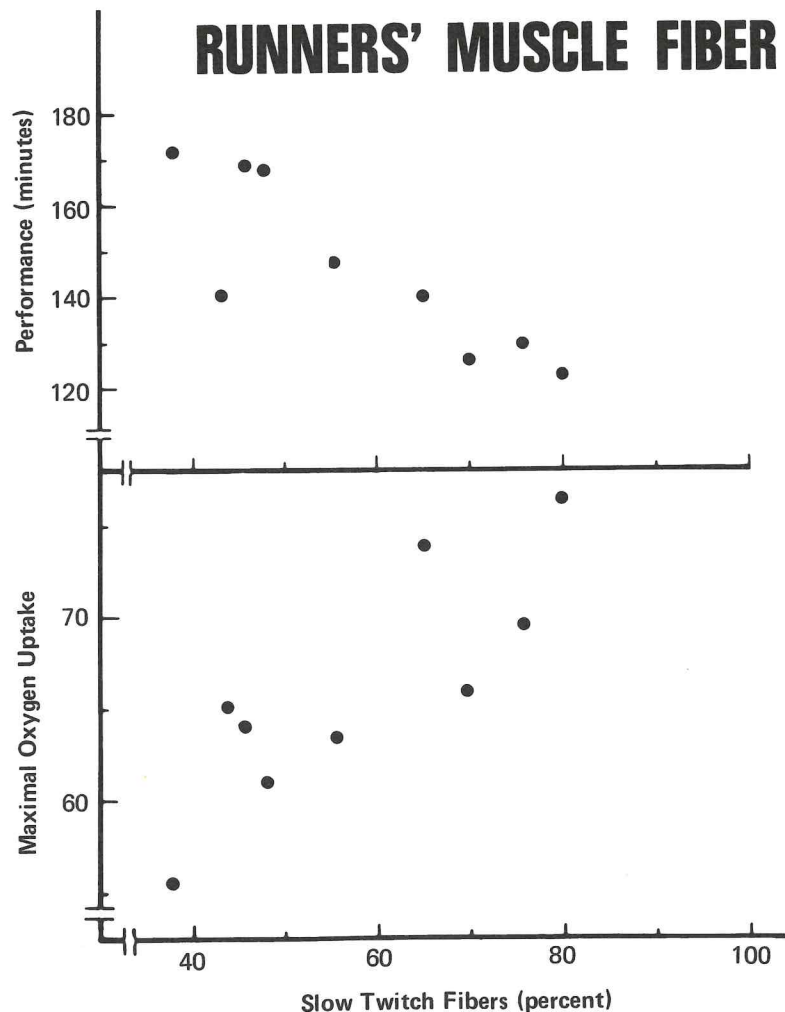
by Dr. David Costill

related to the runner's 10-mile time (correlation of -0.91 from a possible 1.0).

The maximal oxygen uptake for the best runner was roughly 82 milliliters per kilogram of body weight per minute, a value quite similar to those reported for Jim Ryun, Ron Clarke and Kip Keino. It is also interesting to note that the slower runners have oxygen uptake values that are not much higher than those commonly measured in sprint and moderate endurance athletes (basketball, football, etc.). It is unlikely, however, that man with a value of 55 ml./kg./min. can run 10 miles in 67 minutes without specific training in endurance running. We were led, therefore, to view other factors that

might serve as prerequisites for success in distance running.

One quality we observed in Derek Clayton was his ability to run at better than five minutes per mile without accumulating blood lactic acid, a waste product of anaerobic metabolism. The muscles only pour out lactic acid when the tissues are deficient in oxygen. Most trained athletes show an increase in blood lactic acid when their demands for oxygen exceed 70% of their maximal oxygen uptake. Clayton, however, was able to work at 85-89% of his oxygen uptake capacity (4:53 per mile) without accumulating lactic acid. After reviewing all of Derek's laboratory tests, we were unable to explain this unique ability to satisfy the muscles' oxygen demands at such severe levels of effort.



Our next step was to determine whether this quality was typical of world class competitors and to see if we could differentiate this quality in runners with varied abilities. For that reason, we measured blood lactic acid at varied running speeds and related our findings to their 10-mile running performance.

We found that the best runners were able to use a larger percentage of their oxygen uptake capacity without accumulating lactic acid—confirming our findings with Clayton. From a physiological point of view, this fact was quite intriguing. But it really did not explain how these men were able to prevent the buildup of this waste product, thereby enabling them to run faster, longer.

All indications seemed to suggest that the ability to utilize a large fraction of the aerobic capacity for prolonged periods is dependent upon some unique quality of the runner's leg muscles. Having made such a vague assumption, we found it relatively difficult to prove our point. In the fall of 1972, Drs. Bengt Saltin (Stockholm), Phil Gollnick (Washington State University) and I were able to examine the muscle tissue from the thigh and lower leg of some talented and not so talented distance runners.

Very small samples of muscle tissues were obtained with a biopsy needle from the thighs of 10 runners before and after a 30-kilometer cross-country race. This procedure is relatively painless and did not affect the runners' performance.

These muscle samples were subsequently sectioned (sliced) and chemically stained to reveal the character of the muscle fibers. Human muscle is characteristically classified into two distinct muscle fiber types. Some fibers are quick in their response and are equipped to work anaerobically, such as is expected during sprint running. These fibers are termed fast-twitch (FT). Their counterpart, slow-twitch fibers (ST), are designed to perform aerobic work, but respond more slowly than the FT fibers. Most muscles are a mixture of these two fiber types—usually a 50-50 ratio in the thigh muscles.

Our biopsy studies with the distance runners revealed a very interesting relationship. Those runners who finished in the fastest times had a greater percentage of slow-twitch fibers than the slower runners. As can be seen in the illustration on page 27, there was a good correlation between running time and percentage of ST fibers.

Since maximal oxygen uptake and distance running time are also highly related, it is not surprising that the runners with large aerobic capacities also had a

large number of ST fibers. In retrospect, it seems only logical that good endurance athletes should have more ST fibers. These fibers have the structural necessities required for aerobic metabolism. ST fibers have more of the enzymes and mitochondria needed for the production of energy with the aid of oxygen.

Training the leg muscles to perform endurance work increases the number of mitochondria and related enzymes, but it does not alter the character of the muscle. That is to say that training can improve the endurance qualities of the muscles, even the FT fibers, but it *will not* change a FT fiber into a ST fiber. This point is well documented by Gollnick and Saltin, suggesting the proportions of ST to FT fibers that compose your muscles are genetically determined. In a sense, superior endurance ability is determined at birth. But like intelligence, only with training can that capacity be developed to its full potential.

You probably wonder how all this relates to your running success, and what it means in terms of improving your performance. These studies serve to emphasize the individual variations in athletic ability and the innate qualities possessed by the superior distance runner. As you may already have deduced, the muscle fiber typing methods could be employed to identify those young athletes with superior endurance potential. Just as IQ tests are used in screening for superior

intellect, the muscle biopsy technique may hold equal predictive potential in pointing out those individuals of "super" athletic ability.

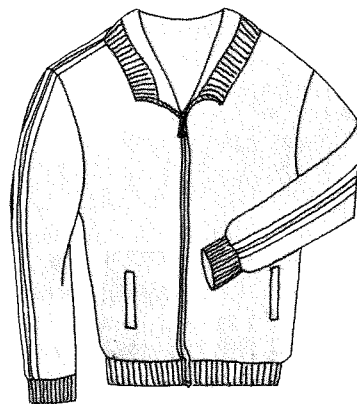
Are you interested in knowing how you might rate? There is no way of knowing for sure unless such tests are performed. However, our data provide a means of estimating your maximal oxygen uptake and percentage of ST muscle fibers, providing you have performed a 10-mile run for time. Before making such predictions, you must presume that the 10-mile performance was representative of your distance running ability, that you are a relatively efficient runner and that you were at a high level of fitness at the time of the run.

These factors assumed, it is possible to use the following regression equations to estimate your maximal oxygen uptake percentage and ST fibers:

Maximal oxygen uptake = 138.6 - 1.278 (time in minutes for 10 miles)

Percentage of ST = 1.424 (maximal oxygen uptake) - 38.28.

If such information leads you to conclude that you may never be a world record holder in the distance events, it may at least give you some excuse for running failures you previously blamed on poor training or lack of intestinal fortitude. You might gain some satisfaction from knowing that your inability "to win the big ones" is the fault of your parents and not your own.



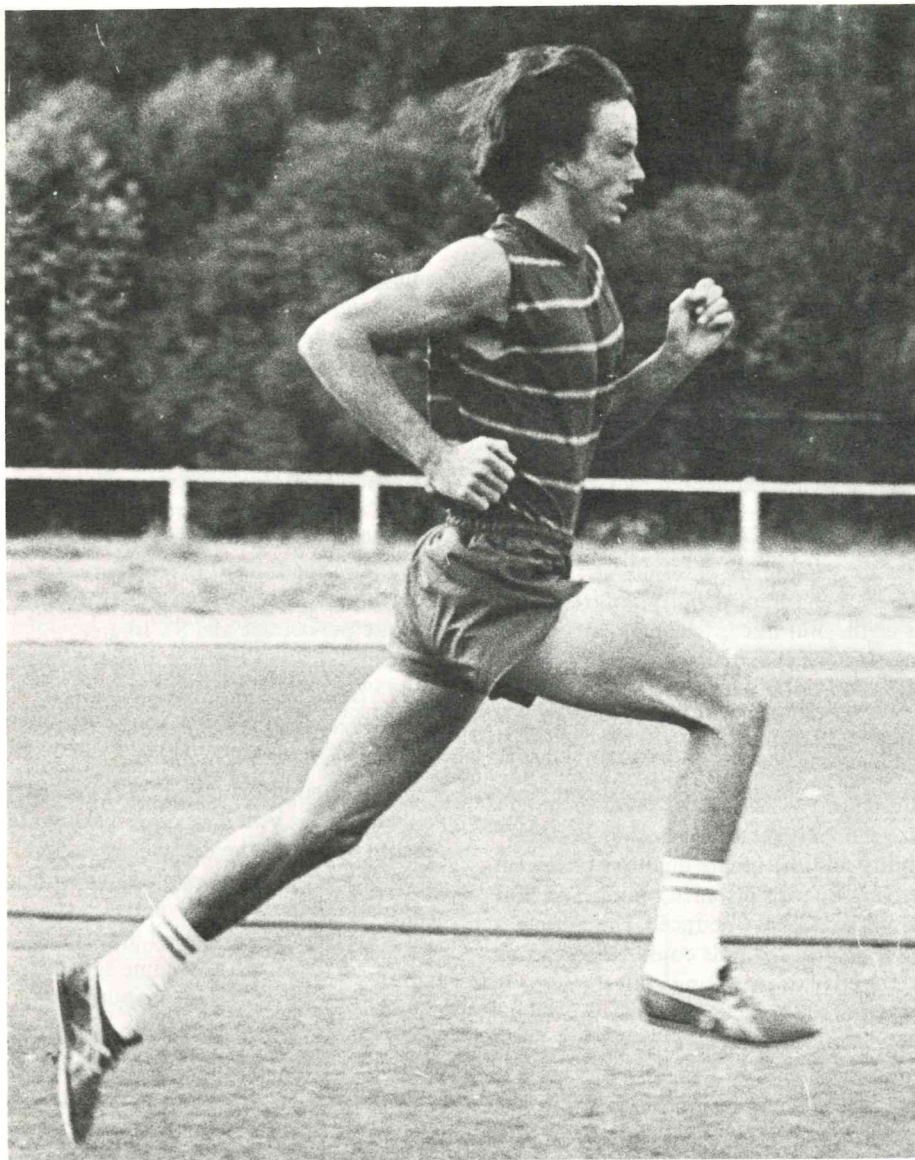
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TRAINING FOR OXYGEN SHORTAGE

by Dr. Frederick Hagerman

Dr. Hagerman is a competing long distance runner and an associate professor in the department of zoology and microbiology at Ohio University.

It is well known that the distance runner obtains the greatest portion of his energy from aerobic metabolism. He doesn't usually encounter high oxygen debt, and his nemeses are more likely to be dehydration, hypoglycemia, physical wear and tear on connective and muscle tissues, and psychological stress.

However, a quick burst in a race,

a too rapid early pace, or starting a finishing sprint too soon can also cause acute fatigue and a subsequent lowering of performance through the introduction of oxygen shortage. These factors are particularly evident in races from 5000 to 10,000 meters, where the pace is fast and strategy is critical. The factors are controlled to some extent by the runner's *anaerobic* fitness.

In each case, the runner must pay for the elevation of metabolism by dipping into the anaerobic storehouse. The promissory note for this withdrawal of

"... With the faster runs coming at the end of the workout, they will develop anaerobic power and come at a time and metabolic level that correspond with conditions of a race." (G. Beinhorn)

energy is the greater depletion of high-energy phosphagen compounds and glycogen with subsequent increases in lactic acid concentrations. Although he may be able to raise his oxygen consumption slightly to counterbalance the need for greater energy, anaerobic processes are probably continuously operating. The degree varies proportionately with the level of effort.

There appear to be only slight differences in maximal oxygen uptake capacities among highly conditioned endurance athletes (references 3, 4, 6). It therefore seems logical that other sources for improving performance should be carefully studied—specifically, the athlete's ability to tolerate high oxygen debts and endure severe pain and discomfort. Recent test results from outstanding runners and oarsmen illustrate the possible importance of anaerobic metabolism in their activities and therefore offer support for doing more anaerobic testing (4, 6).

It is important to note that the aerobic systems are working simultaneously during exercise of any type or severity (8,9). They must not be thought of as independent systems, analogous to a multistage rocket where one system burns out before the other takes over. Metabolism during exercise is a constantly changing and fluid situation. There is still much to be learned about the role of the phosphagens, the fate of lactic acid, the storage and breakdown of the glycogen in skeletal muscle and many other questions relating specifically to anaerobic energy sources and their utilization.

According to Astrand and Rodahl (1) the most optimal method of utilizing the high-energy phosphagen compounds is to perform short maximal work bouts, 10-15 seconds, with relatively long recovery periods of up to two minutes to insure no significant breakdown of glycogen and therefore to prevent the production of lactic acid.

I have served as a physiological consultant for the past six years to the US Olympic and national rowing teams, and I have observed workouts in which the crews rowed at near maximal or maximal

Aerobic capacity isn't enough.

effort for 20-30 strokes and then recovered with slow paddling for 2-3 minutes. We have recorded exceedingly high phosphagen capacities for the oarsmen (5).

It must be noted, however, that crew racing tactics break all recommended rules of race pacing. A crew sprints off the line, rowing at their maximum stroke cadence for the first 100-150 meters before it "settles" into a steady-state for approximately four minutes. Then the oarsmen begin an all-out sprint to the finish. Their phosphagen capacities allow them to do this.

Perhaps the distance runner can learn from the oarsmen. Although a sprint is not often necessary until the end of the run, being physiologically prepared for an unexpected increase in metabolism as a result of elevated pace may insure greater success. If this can be accomplished with only a slight involvement of the lactic acid system, then fatigue can perhaps be kept at a tolerable level.

The lactic acid system responds maximally to high intensity interval training. The primary purpose of this training is to create conditions where the greater amount of energy for work is derived from glycolysis with subsequent titration of lactic acid, an elevation of oxygen debt and increased physical discomfort.

I would recommend using high intensity interval training (on the track, roads or grass) once or twice a week, de-

"... Anaerobic work is important for improving speed, developing a stronger finish, breaking the monotony of continuous long running and increasing the pain tolerance of runners. This last factor is often overlooked in the distance runner's training regimen. Repeated efforts with ever-increasing pain train the mind."

pending on the condition of the runner and when he chooses to peak. Perhaps the long distance runner can benefit from relatively fast one-, two- or even three-mile intervals.

Long steady-state (aerobic) runs followed by 220-yard fast runs with brief rest periods (as short as 10-15 seconds) make significant demands on aerobic metabolism. With the faster runs coming at the end of the workout, they will develop anaerobic power and come at a time and metabolic level which correspond to the conditions of a race.

Some runners claim that interval hill running places the highest demands on the anaerobic energy pathways, as well as providing the most significant stimulus for producing discomfort. Hill running can start with repetition training (complete recovery between runs) and then progress to a point where there is incomplete recovery.

Anaerobic work such as this is important for improving speed, developing a stronger finish, breaking the monotony of continuous long running and increasing the pain tolerance of runners. This last factor is often overlooked in the distance runner's training regimen. Repeated efforts with ever-increasing pain train the mind. Sometime during a race, most distance runners, no matter what caliber, have to endure the acute pain of not having enough oxygen or the chronic pain of muscle and connective tissue wear and tear.

Remember that interval training is exceedingly strenuous, both physiologically and psychologically. There are probably greater chances of acute muscular and connective tissue injury. Certainly signs of fatigue and staleness should be carefully observed. Plan training carefully and allow for at least two days of easy running between more strenuous workouts.

It is not yet clear how our muscle cells adapt to the increasing demands

of anaerobic work. But certain beneficial changes such as increased glycogen and some modifications of cell structures are evident following both acute and chronic conditioning. Even if its benefit is only slight, anaerobic training appears to help the distance runner in a number of ways. Sometimes a race is won by only a slight margin.

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WHILE AN INJURY IS MENDING

by Dr. Paul Kiell

Paul Kiell's injury was a broken toe. It could have been almost any other foot or lower leg disorder. The reaction to it and the course of treatment would be much the same. New Jersey psychiatrist Kiell outlines his course.

They both arrived the same day: the *Exercises for Runners* booklet to my home and a five-pound weight from shoulder height on the big toe of my right foot. The book I recommend highly, but I am less enthusiastic about the x-ray. The latter showed a fracture of the right toe, through the thickness as if sliced by a knife. (Moral: make sure your locking collars are on tight!)

The large toe is most important in weight bearing and in providing a good push-off. Though this area has an abundant blood supply, there is little an unhappy runner can do except be assured the fracture is in good alignment, splint the fractured toe to the second toe (optional, and only for a few days) and use a cane for the first 7-10 days. A steel shank inside a walking shoe and/or a metatarsal crest added to another shoe does help, but the main ingredient is time. The usual healing period is six weeks.

"Worst thing that could happen to me," this depressed psychiatrist muttered to the orthopedist. I was instantly ashamed at such self-indulgent utterances and simultaneously aware that self-pity and depression are destructive and alien to any type of rehabilitation. Crystallized almost at that moment were the positive essentials and goals for the next six weeks:

- An optimistic mood free of the doldrums.
- Some type of general cardiopulmonary conditioning compatible with the injury.
- Later, a gradual return to running as healing permitted.

This was the course followed for the six weeks immediately following the injury:

First week—Less than 24 hours after the accident I was pedalling a stationary bicycle (rented at a local drug-surgical store), requiring use of the heel and ball of the foot but not the toe. I would pedal for about an hour a day, or 10 miles, using increasing resistance. This should be enough for a cardiopulmonary workout. It is most boring, so the bike is best set up in front of a TV or where music can be heard.

Bike work was done daily for the first two weeks. Weight training was begun and performed every second or third day with no particular emphasis on progression, only an attempt to keep certain muscle groups active. Since bike activity develops the quadriceps, creating a strength imbalance over the antagonists, leg curls with a weighted boot to strengthen the hamstrings were done while standing and dorsiflexion of the feet was done while seated. To this was added upper body weight work. Stretching and yoga-type exercises begun then have continued to the present.

There was pain, considerable at first, along with significant swelling and discoloration. Gradually both subsided but I was never really free of some degree of soreness and swelling. Pain should give us pause. Runners are a particular breed. We are often in our own type of trance, oblivious to various stimuli and stoical in tolerating pain. My orthopedist was impressed that I registered little or no pain. Yet pain is a protective warning sign, inhibiting our movement where it would cause further damage. So runners must be wary of their enthusiasm and high pain threshold.

Second week: Bike, yoga and weights continued. On the 10th day, I tried a four-mile hill run. Swelling was still very much there and I was unable to put any weight on the foot. What had begun as a brisk walk merged into an awkward jog. It was a beautiful day and I could not resist the temptation. Running on hilly terrain seemed optimal. Uphill minimized leg shock and the downhill angle provided a natural pushoff. Two days later, I did another slow four-mile run. The next day, I ran 10 miles.

Prior to the fracture, I had recorded four 60-mile weeks, so this 10-mile was relatively easy and little conditioning seemed lost. But my euphoria masked acknowledgment of pain in the sole pad of my right foot. While I ran, I had rolled over the broken toe, with the metatarsal head absorbing all the shock. The next day, after a difficult four-mile run, there was considerable discomfort in that area.

The orthopedist labelled my misery "metatarsalgia" (some help!) and reminded me that healing of the fracture would be a good six-week process. Inability to place any significant weight on the toe,

plus the new pain, made me a believer. Bright elation faded out yielding to dark clouds of despair.

Third week: Two more days of bicycling, exercises and weights, but no running, all under the shadow of a blue mood, probably the precursor of severe throat pain and obvious signs of the flu. The stress of the fracture experience, augmented by my lowered mood, was enough to allow the flu virus to take hold. Weakness and malaise permitted no real exertion, and the whole program ground to a temporary halt.

Fourth week: At mid-week, I felt well enough to attempt a six-mile hill run. Afterwards, the leg pains were reminiscent of runs years before when six miles was quite a distance. My left thigh was considerably more stiff than the right, indicating it was compensating. Obviously, I was getting much less push-off from my right toe, which was functioning at an estimated 50% efficiency.

The next day I recovered readily from a seven-mile run, and here came an incidental finding. For no known reason, I had tried straight-leg raising with the weighted foot just before this run. In this run there was none of my chronic knee pains, which lately had been accentuated by the imbalanced running style.

The vigorous weight warmup and its subsequent increase in blood flow apparently served to protect the area. I have repeated this procedure since with equally good results. Therefore, I submit the suggestion of occasional pre-run weight work.

By the end of the fourth week, I could apply full pressure to walking. The toe seemed at about 75% strength.

In the four weeks—three of which included general cardiopulmonary conditioning and the equivalent of one week actual running—I had lost much of my base. Such did not occur after the first 10 days of non-running, but was apparent 3½ weeks after the injury.

Fifth week: Thirty-two miles of running. Thigh imbalance was slightly corrected. The toe was still moderately stiff, sore and somewhat swollen, but I was obtaining a 90% pushoff.

Sixth week: Logged 50 miles, including one 13-mile run. The toe was stronger, though a degree of swelling, stiffness and soreness persisted. An x-ray showed fine healing.

I easily resumed sixty-mile week

runs during the seventh and eighth weeks, the latter including a 19-mile run. Slight stiffness and swelling were still there. (A "cuff" of hard tissue surrounds the old fracture site, but its presence presents no functional impairment whatsoever.)

Resumption of competition produced times comparable to previous tests.

I learned things from this episode which I think can be valuable to anyone recovering from any serious foot or leg disorder. My advice:

- Set goals well below the threshold of further injury. Keep a positive at-

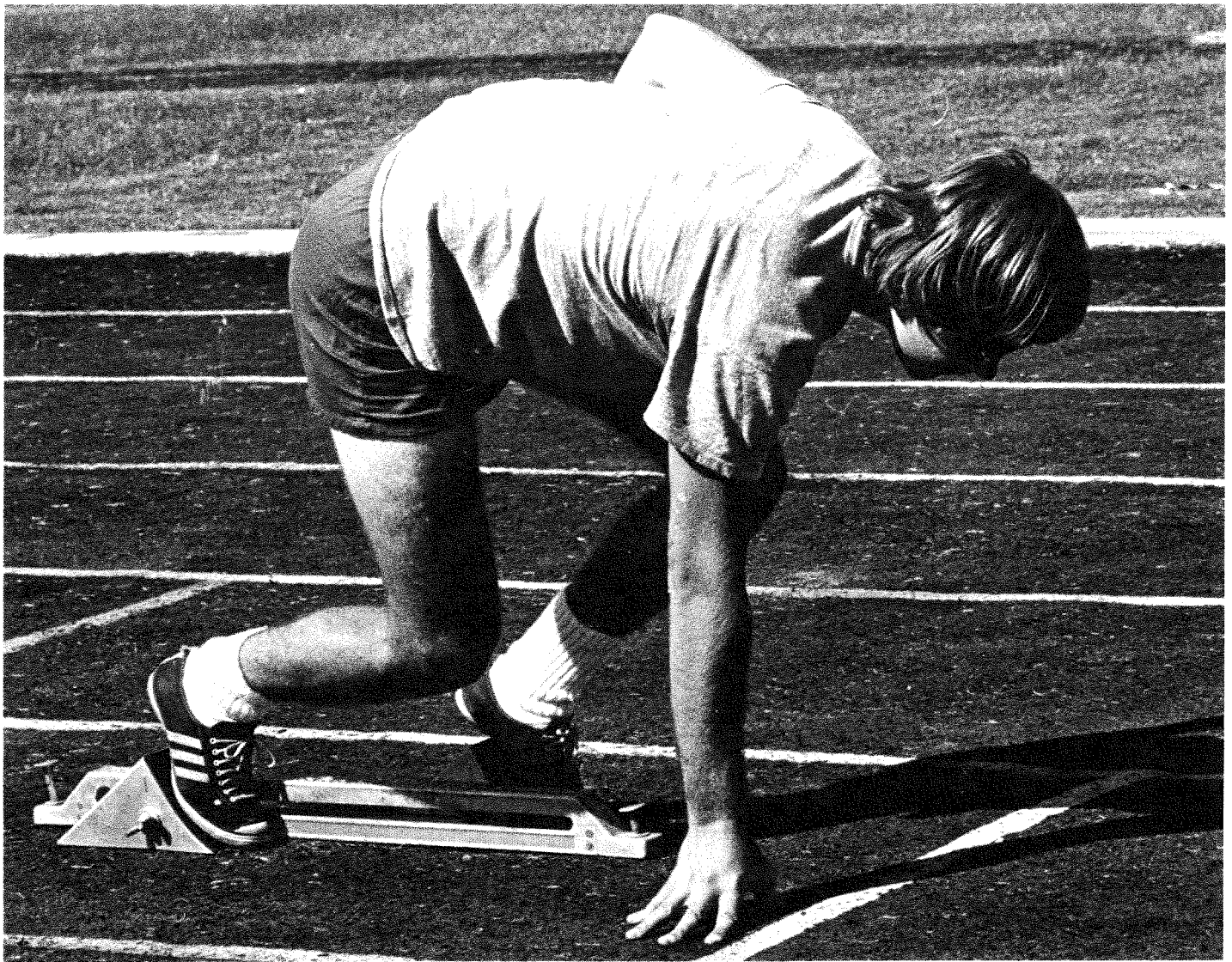
titude. Non-injurious cardiopulmonary work supplemented by stretching and weight training is essential.

- Don't run until pain and tenderness is much diminished and some degree of pushoff is possible. Start with frequent short runs emphasizing proper form; no long runs for a while. (Run-

ning on the 10th day was too soon for me. The onset of illness was the result of unrealistic planning, yet perhaps it was a lucky interlude.)

- If one is optimistic and realistic (I was not necessarily so), and runs within the limits of pain, relatively little time and condition will be lost.





DEVELOPING YOUNG SPRINTERS

Kevin McNair, a sprinter while attending Stanford University, now coaches at a northern California high school.

by Kevin McNair

Especially at the high school level, many coaches attribute a lack of sprint speed improvement to a mere lack of inborn talent. More often, however, speed potential is never tapped due to a lack of properly presented technique sessions within the training program. When creating a training philosophy for the young and inexperienced high school sprinter, then, the concern often should be with teaching efficient sprinting technique. Many young sprinters simply aren't aware of certain specific body movements which can result in speed improvement.

I do not believe that every sprinter can be indiscriminately molded into one particular style of running. However, if the athlete mentally emphasizes cer-

tain specific, efficient movements early in the season, rapid improvement can result. This type of work has been productive at the high school level with sprinters who (1) were generally well-conditioned prior to track season; (2) had a minimum of one year of track and field experience; and (3) had virtually no improvement in speed while under programs lacking this particular technical emphasis.

This sprint philosophy grew from the meticulous instruction I received while competing under coach Payton Jordon of Stanford University, and from analyzing various sprinting theories throughout my nine years of competition.

I've concluded that anyone can im-

prove his relative speed through the proper technical approach. For example, these are the 100-yard times of six high school sprinters before and after they trained with this specific program:

Before	After
10.9	10.1
10.6	10.1
11.3	10.5
11.2	10.6
10.7	10.3
10.8	10.4

Under this speed development plan, each sprinter emphasizes one or two specific techniques while running sets of 70-yard dashes. (A set includes five dashes with a walking 70 between each repetition for recover.) Each 70-yard repetition is segmented.

The first 20 yards is run at less than half speed merely as a "positioning

LEFT: From the start to 20 yards is the "positioning phase" of the sprint. (Steve Sutton photo)

BELOW: All sprinting demands a high knee lift and "punch." (George Beinhorn photo)

phase," with specific technique of that phase being emphasized. It is much easier to emphasize a physical movement at half speed than under the pressure of 100% sprint exertion.

After the positioning phase the athlete accelerates to 90% of his maximum speed while still concentrating absolutely on technique for the final 50 yards.

The following techniques are taught:

1. **Hip elevation**—The center of gravity is high as the runner attempts to run lightly and quickly.

2. **Head position**—Excessive backward or forward tilting is avoided.



3. **Posture**—Concentration is sequentially directed towards one of the following: (a) keeping the shoulders down, not up; (b) avoiding excessive bending at the waist; (c) leaning by placing the chest slightly forward rather than tilting it down or back.

4. **Hip rotation**—Through the emphasis of loose hip action, the sprinter's stride appears less mechanical. Such flexibility enhances stride length. Often this rotation can be facilitated by having the athlete run on a line, allowing the hips to loosely rotate toward the line, which serves as a focal point.

5. **Stride completion**—The emphasis is to complete the leg driving phase of the stride with concentrated force.

6. **Knee punch**—The knee should be raised forward and up. Stride length is emphasized by the combination of this vigorous knee punch and forceful leg drive. Excessive foreleg reach is not encouraged. Such a movement often causes the inexperienced sprinter, at the moment of the foot-plant, to have the leg too far ahead of the center of gravity and straight to the degree that leg drive is greatly diminished.

7. **Arm action**—One of the greatest problems for the young sprinter is maintaining arm action which is well synchronized with the running stride. Swing the arms straight up and down, rather than across the body movement. The hand never passes behind the hip, or rises above the shoulder.

8. **Foot plant**—Excessive toeing out is avoided.

9. **Increasing stride length**—The sprinter's stride length is approximated from the foot prints on the track. This stride length plus 12 inches is the distance which is determined to be the ideal for the 70-yard drill. Throughout the final 50 yards, chalk marks are made corresponding to the desired stride length of the athlete. As the athlete sprints, he concentrates on achieving maximum leg drive. This leg drive, plus a forward and upward knee lift, is directed toward reaching each mark that appears ahead of him.

Racing is not encouraged at this beginning phase of the training period. Competitive situations are created only after the sprinter has improved his sprinting action. The distance of each repetition is extended only when the athlete has sufficiently improved his running techniques. The sprinter progresses from 70 yards to 110, 150 and finally 220 yards.

This progression is based on the belief that a sprinter may adequately run with efficient form at half speed, yet

totally fall apart at 90% of his maximum effort. Therefore, rather than begin the initial phase of training at over-distance, with moderate speed, he begins below the racing distance at 75-90% of maximum speed. He extends to and beyond the distance as technique improves.

Therefore, because quantity (number of repetitions and length of sprinting distance) is determined by the appearance of efficient movement, the athlete is never placed in a practice situation in which he is so fatigued that good technique becomes non-existent. Forcing the athlete to continue to sprint under such circumstances merely reinforces inefficient action.



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MAN: THE DISTANCE ANIMAL

In the animal kingdom, man is the distance runner. Sprinting has never been man's forte, and almost everything on two or four legs can beat him over a short distance. But given enough time, a well-conditioned man can run the swiftest animals to earth.

The human cardiovascular system evolved as part of the physiology of hunters who regularly ran for their lives. If they didn't run they didn't eat.

Modern man no longer has to chase his food, but he still has a million-year-old body designed by nature to thrive on distance running. When men do not run, they are likely to die prematurely from the dysfunction of the heart and vascular system, or to suffer disabling chronic illness from stress diseases associated with adrenals.

The sprinting championship of the world animal belongs to the cat family (lions, tigers, leopards and jaguars). They hunt by stealth and then attack with a blinding, high-speed sprint—but can seldom sustain it for more than a couple of hundred yards. If the big cat fails to get their prey within that distance, they stop, exhausted, and rest up for the next race.

If the cat does get its prey, it may gorge itself and lay around for the better part of a week. These animals suffer no ill effects from this irregular exercise routine and even seem to thrive on it.

Man, on the other hand, has more in common with his best friend, the dog—and perhaps that's how they got to be best friends.

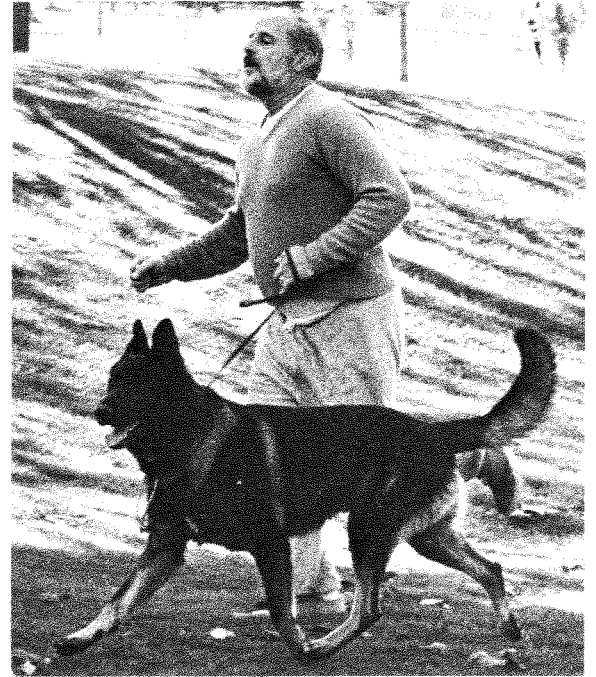
Members of the dog family hunt by relentless pursuit over long distances. The circulatory and endocrinal systems of both man and dog have evolved toward a hunting animal who uses endurance and strategy rather than fleetness and surprise.

This does not mean that pre-historic man or dogs exhausted themselves. Dogs, as is well known, can be pretty lazy at times. But if they get the right amount of occasional exercise, they remain in excellent health.

There is no way to know exactly the habits of prehistoric man, but it is a good bet that he found plenty of time to lay around and daydream—maybe even invent a wheel or two.

The modern-day Bushman of Africa probably lives a life similar to prehistoric man. The Bushman is a distance run-

“... both man and dog have evolved toward a hunting animal who uses endurance and strategy rather than fleetness and surprise.”
(George Beinhorn photo)



ning hunter, but he also finds plenty of time to relax.

A typical Bushman hunter “works” two or three days a week during which his total running time is rarely more than a couple of hours. And yet the Bushman enjoys excellent health. The incidence of thrombosis among his group is very low.

What this hopefully indicates to civilized man is that an hour or two of running every day or every other day is probably a satisfactory minimum of exercise for good health.

Conversely, the evidence seems to be mounting that diet and medication has not been as effective as hoped in the treatment of heart and circulatory problems. And that pseudo-exercise such as golf does little or nothing to help.

An analogy can be drawn here with an automobile that is never driven more than 20 miles an hour and only used a couple of times a week to go to the store. When the car becomes hopelessly gummed up, the owner is usually surprised when the garage man tells him that he needs to drive it more.

Man, too, must “blow the carbon out” every once in a while. To ignore this fact of life is to invite vascular failure. Hypertension, thrombosis and arteriosclerosis are symptoms of the malfunction of a system that is not properly used.

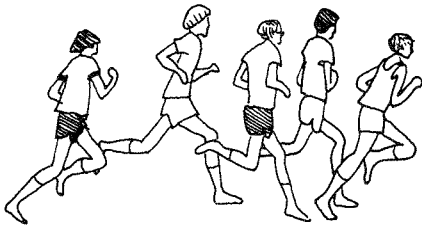
One of the great misconceptions

about man is that he is basically a weak, hairless creature who has had to rely on his brains and tricks to survive. This image has been put forth by cheap cave-man movies and some television documentaries.

Actually, nothing could be further from the truth. Physiologically speaking, man has one of the toughest bodies in nature. He has an amazing central nervous system, and unique skin that acts to cool him during a long run. Our friend, the dog, must pant in order to cool its overheated body. This method is not nearly as effective as the human ability to perspire.

In 1704, a man named Alexander Selkirk was marooned on Juan Fernandez Island off the coast of Chile. He spent four years and four months there, and his experiences inspired Daniel Defoe to write *Robinson Crusoe*. Since Selkirk was a sailor, who had spent a good part of his life confined to small ships, he could not have been a great distance runner when he arrived on the island. But when he was found in 1709, the captain and officers of the rescue ship verified that Selkirk was able to catch wild goats by running them down!

Man is one of the great distance runners of the animal world, and despite all his modern technology his body still craves the long run.



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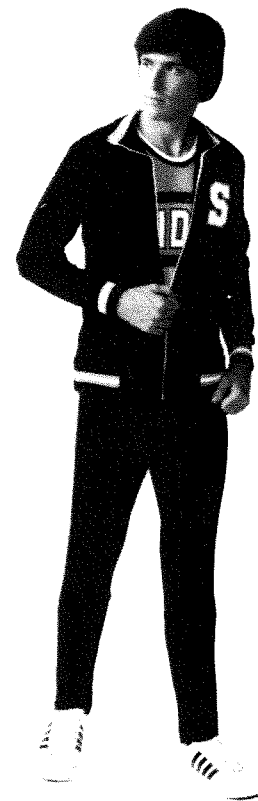
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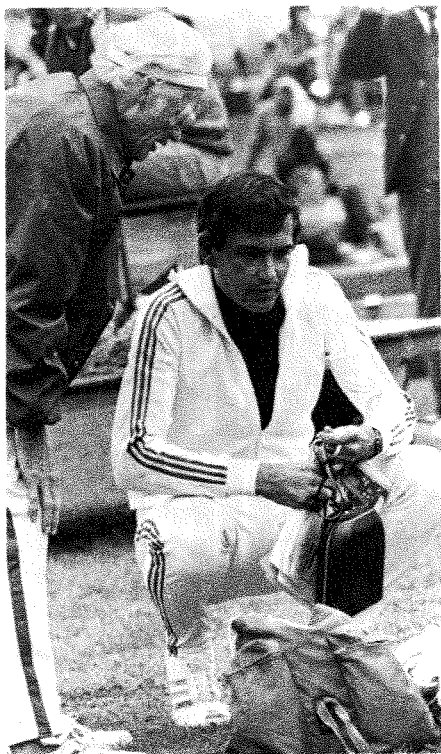
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RW-4/4

Looking At People



Ron Clarke

● **Ron Clarke**, a man who knows a thing or two about running 10,000s, was advising **Dave Bedford** on how to run his Commonwealth Games race. Clarke told the press, "Bedford could win this race if he would only adopt the right tactics. I think that those are to take it easy over the first half and then really go for the last 5000 meters. Nobody would be able to live with him then. I could tell him in half an hour what it took me a lifetime in athletics to learn.

"No one knows the fear in a front runner's mind more than me. When you set off at a cracking pace for four or five laps and find that your main rivals are still breathing down your neck, that's when you start to panic. When you find you can't shake them off and they are still there with a couple of laps to go, it's murderous. You know then you've had it. That's the feeling I think Bedford will experience again, as I still don't think he has yet learned to run any other way (than to lead from the start)." Bedford pushed the pace and finished fourth.

● **Ellen Minkow**, a freshman race walker at Syracuse University, became the first woman to win a major college championship open to both sexes when she took the IC4A mile walk title in 7:36.9.

● **Charles Gibson** of Chattanooga, Tenn., we've learned somewhat belatedly, was the fastest marathoner last year for ages 50 and up. Gibson, 50, ran 2:43:50 at the Peach Bowl race in Atlanta.

● **Filbert Bayi's** record 1500 brought this reaction from the longtime record holder **Jim Ryun**. "My records in the 1500 and mile were like a security blanket," Ryun told **John Zant** of the *Santa Barbara News-Press*. "My first reaction (to Bayi's race) was one of bitterness. I thought, there goes my career out the window. But I got hold of myself, knelt down and prayed for an hour... and I realized the records are superficial things. I have God and a family that I love. Those are important."

● **Marty Liquori** says it's Ryun's mile record that keeps him going in track now. "Someone's going to break Jim Ryun's mile record this year," Liquori said in an interview with **Paul Zimmerman** of the *New York Post*. "I know it's going to happen, and I want to be part of it. I can just sense there will be some real action when we get outdoors... I guess the world has finally caught up to Jim Ryun."



Jim Ryun

● **Roberta Angeloni** (maiden name Pico) retired from running 10 years ago. She has come back this year with an indoor world record at 600 yards (1:19.8). The mark, however, won't be accepted because the track was more than 220 yards per lap.

● **Steve Williams**, the runner listed last issue as tying the American indoor 100-meter record, isn't the same **Steve Williams** who is the top American sprinter. The former Williams is a student at Idaho State University, the latter is a Californian. Confused?



Peter Snell

● **Peter Snell** has returned to low level competition after almost nine years of retirement. The three-time Olympic champion recently ran 11.7 for 100 meters and 51.5 for the 400. Snell is now 35.

● **John Cooper**, two-time Olympic silver medalist for Great Britain, died in early March in the crash of a Turkish airliner near Paris. Cooper, 33, finished second in the 400-meter hurdles and ran on Britain's second-place 1600-meter relay team at Tokyo.

● **Kaj Johansen**, a medical doctor from San Diego, may be the heaviest man ever to run a 2:30 marathon. Johansen, at 185 pounds, did 2:30:17 in January—14½ minutes faster than his previous best. He says, "More than anything else, this proved to me that marathon running success requires literally zero skill and speed, but only hard work."

● **Bobby Riggs**, you've no doubt heard by now, "beat" **Jim Ryun** and other professional runners in a mile. And in the process reduced pro running to a circus level that purists hoped it would never reach. Riggs ran 3:22.1, beating Ryun by more than a half-minute. The catch was that Riggs, wearing a white bunny suit, had a half-mile head start. The victory earned him \$2000.

● **Larry James**, meanwhile, also entered the anything-for-a-buck sweepstakes when he ran against a racehorse and a car. Though James got a head-start, he finished a distant third.

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by George Sheehan M.D.

MEDICAL ADVICE

BLOOD FATS

Q: Is it dangerous to run with a high triglycerides reading (mine is 227 and my cholesterol level is 136)? My doctor said I could exercise, but to cut down my sugar intake. I have been running for four years and now do five miles five times a week. My weight is 170 pounds, height 5'8", age 50. (B. H., Pennsylvania)

A: I agree with your doctor. You have a type IV hyperlipidemia, the most common type of blood fat disorder. Your cholesterol is quite low, probably as a result of your running program. The high triglycerides are thought, as your doctor said, to be due to excess sugar intake and excess body weight. The recommended diet is one in which carbohydrates are limited to 40% of the daily calories. Alcohol should be restricted and probably avoided.

From your statistics, it does seem as if you can lose some weight. You should use your weight at about age 20 as your standard. It is unlikely that any increase since then has been due to muscle. You now have the incentive to get back to that lean weight. You will probably find that you will run better as you are in the process of reducing your triglycerides.

HEEL BRUISE

Q: A few months ago, I bruised my heels while running on a cinder track. I think the reason for this is that I was wearing shoes without enough padding in the heels (Tiger Marathons). I stopped running for three weeks and the soreness went away. But just recently I bruised my heels again. What could be causing this and what can I do for it? (T. C., Florida)

A: The Tiger Marathons are poor training shoes. They have no shank (support between the heel and ball of the foot) and poor shock absorption. If you have a weak foot, they will let you know it. I suspect you have such a weakness in your foot which is causing a strain on the arch. The pain occurs where the bowstring of the arch is attached at the

heel. Most runners have tight achilles tendons and hamstring muscles which make the strain on the arch even worse.

I suggest you do the following: (1) Start flexibility exercises for your achilles and hamstrings; (2) Get a pair of Tiger or Nike Cortez, Puma 9190, Adidas Country or SL-72, or comparable well-supported shoes to train in; (3) Get a pair of Dr. Scholl's Athletic A supports to put in the shoes; (4) Cover the arch and the rest of the sole with quarter-inch surgical felt; (5) Cut a hole in the felt where the heel is tender; (6) Transfer this pad from your running shoes to your regular shoes so you use it all the time.

If none of this helps, see a good podiatrist.

SHOE GLUEING

Q: The glue gun that many of us are now using to repair the worn-down sides and backs of our running shoes has meant an enormous saving in time and expense. Since I've been doing this repair work, however, I have had several occurrences of swelling above the ankles. Could this be caused by the rebuilding of the heel and perhaps adding too much of a "lift" to the heel? (K. J., California)

A: Your experience confirms what I've been trying to say here for years: In the foot strike, millimeters count. Joe Henderson, author of the original article on shoe-glueing, suggests now that best

results are obtained by using the smallest possible amount of glue and spreading it smooth and "paper-thin" with the hot glue gun nozzle.

COUGH

Q: Possibly you can help one of the runners I coach. He has had problems with coughing and chest congestion since December. He stopped running in late December on his doctor's advice (which was to run only in the summer!). (M. S., Indiana)

A: Most continuing coughs without evidence of illness are due to sinusitis. This sinus problem may be either (a) infectious or (b) allergic. Usually an experienced nose and throat specialist can tell an allergic nose by looking at it.

Infected sinuses usually respond well to "Proetz" treatments in which saline douches are used. Allergic sinusitis is a more difficult problem. A simple antihistamine and use of a nasal spray may do the trick. However, consulting an allergist will probably lead to more productive measures.

DRINKS

Q: I've read a number of articles about the importance of fluid and electrolyte replacement, and have found that ERG seems to fill the bill nicely without tasting too terrible or having bad after-effects. I assume that during long races one should drink it whenever possible. The question I have concerns the quantity one should consume during a week's training to keep a good chemical balance, I may lose as much as 3-4 pounds during a 15-20 mile run, which I suppose is mostly fluid. This weight of ERG would be about a half-gallon, which seems a bit much to drink. (G.O., New York)

A: It is David Costill's contention, supported by his testing, that no one can completely replace his fluid loss during a long run on a hot day. It is simply not absorbed from the stomach and sloshes around in there. The runner's intake is therefore limited by distention or even nausea caused by the fluid.

There is apparently no danger of getting too much fluid in your system. However, loss of 3% body weight from dehydration may result in moderate to severe heat stress symptoms. Most physiologists are now recommending 10 ounces of fluid every 20 minutes as a prevention. Taking fluid in similar quantity just prior to a run has also been advised. The object is to remain as close as possible to your starting weight.

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MID-PACIFIC RRC 50-MILE SPECIAL—May 26, Scholfield Barracks, Oahu. Concurrent ultra-marathon and 6-man team relay over a beautiful loop course. Information write Col. T.J. Ferguson, 1352 Parks Dr., APO, San Francisco 96558.

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WEST LOS ANGELES FUN RUNNERS—Do they exist? Let's get organized! Contact Fred Wietersen, P.O. Box 2164, Culver City, CA 90230.

MID-MICH TRACK CLUB ANNUAL MEMORIAL DAY RUN—Hold (adjacent to Lansing) High School, Sat., May 25 at 10 am. 5-mile and 10-mile road races. Age groups. Last year trophies to over ½ the field, will order same for '74. Showers/dressing available. Early entry \$1.00, day of race \$1.50. Contact Gordon Schafer, 4378 W. Holt Rd., Holt, Mich 48842.

SEVENTH ANNUAL OKIE RELAYS—May 18, 1974, 40-mile 4-man team relay across panhandle of Oklahoma to Texhoma, Okla. High school and open. Write Okie Relays, Chamber of Commerce, Texhoma, Okla. 73949. (405) 423-4521.

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

AVENUE OF THE GIANTS MARATHON—S. Humboldt Co., Calif. Sunday, May 5 at 9 a.m. Certified, flattish course through redwood groves. \$2.00. Contact: Dave McGrath, 1206 Oasis Street, Arcata, CA. 95521. (707) 822-6619.

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RUNNER'S GUIDE TO NEW ORLEANS

The city of New Orleans is somewhat cramped for land area as it is located between a bend of the Mississippi River on the south and Lake Pontchartrain on the north. This bit of America, however, has had more than its share of colorful history since the day in 1718 when the French explorer, Bienville, started a trading center there in Louisiana.

Probably the first recorded distance run in the area was in December 1813, just before the famous Battle of New Orleans. Young Gabriel Villere made his way from his father's plantation to General Andrew Jackson's headquarters in what is now the French Quarter to warn Jackson that the British army had landed and was advancing upon the city.

As everyone knows, the ragtag (by British standards) American army under Jackson won the battle. What most don't know is that today the New Orleans Track Club commemorates the run and the battle with its annual Jackson Day race. It traces, generally, the 5½-mile route taken by young Villere more than 150 years ago.

The actual Battle of New Orleans began on Jan. 8, 1814. The Jackson Day race is run on the first Saturday of each January. By runners' standards, January in New Orleans is usually just cool enough to make the run comfortable. Cold weather is rarely a problem.

The running visitor to the Crescent City (nicknamed for the bend in the river) can trace part of the Jackson Day course at any time, although traffic conditions downtown make running the entire course very risky at any time other than during the actual race, when traffic is controlled, or on an early Sunday morning.

To begin, go down the eastern side of City Park on Wisner Boulevard to the site of "Spanish Fort," just past the intersection of Wisner and Robert E. Lee Boulevards. After reading the historical marker there at the ruins, begin your run back down Wisner toward downtown New Orleans. On your right, after a couple of blocks, will be part of two of the four 18-hole golf courses in the park; on your left will be scenic Bayou St. John. Across the bayou are some of the loveliest homes in New Orleans. Many of them have docks on the water and sailboats are a common sight on the bayou in the spring and summertime.

If you like to run hilly courses,

treasure the overpass on Wisner across the Interstate Highway, for this is the closest thing to a hill that you'll find in New Orleans. The course follows Bayou St. John, turning left along Moss Street to Orleans Avenue. There it turns left on Orleans and goes down to the Municipal Auditorium parking lot and through the lot to St. Peter's Street in the French Quarter. You would finish the course by running down St. Peter to Royal Street, turning left to Pirate's Alley, running down the Alley and finishing at the corner of the Alley and St. Louis Cathedral.

But unless it's a Sunday morning or during the annual race, stay on Wisner and continue alongside the park to City Park Avenue. Turn right on the avenue and this will take you down the south side of the park where you can view some majestic oak trees dripping with Spanish moss. In the past, numerous young Louisiana gentlemen settled their arguments with duels under some of these very trees. Today, the quiet of the park will be broken only by the shrill whistle of the miniature railroad train, one of the longest children's rides in the United States.

At the corner of City Park Avenue and Marconi Avenue, turn right and continue down the west border of the park to where Harrison Avenue crosses Marconi. At this point, you will notice the Gernon Brown Gymnasium. It is not easy to overlook for its outer walls are painted with the vivid mural of an abstract sunset. Stop in front of the gym. You will have run 4.9 miles by now and will be at the starting point of the Mardi Gras marathon races. (The marathon is held on the first Saturday of each February.)

From this point you have a choice of several courses that offer the best running conditions in New Orleans. They are accurately measured, scenic and the traffic is neither too heavy or too light. By this I mean that there is a minimal chance of getting run over by a car, but the runner is never completely alone.

A great favorite of local runners is the 15-mile course which begins by the flagpole in front of the gym. Start north, toward the lake on Marconi Drive. One mile down Marconi, turn left on Robert E. Lee Boulevard. (There is a one-mile mark painted on the pavement for timing purposes where Marconi and Lee intersect.)

Almost exactly one mile down Robert E. Lee you will turn right onto West End Boulevard, which becomes Lakeshore Drive after three blocks and follows the Lake Pontchartrain shoreline. From here the course stays on Lakeshore Drive and passes such points of interest as Mardi Gras Fountain, Louisiana State University's New Orleans campus, the Lake Pontchartrain Amusement Park and the US Marine and Naval Reserve Headquarters. The drive circles the Reserve Headquarters. The 15-mile run is completed by retracing the route back to the gym.

Other races held near the lakefront always include a portion or all of this 15-mile course because it is attractive and accurate. The visiting runner can always find someone running this course on Saturday mornings. Usually a group will start from the gym at either 7 a.m. or 7 a.m. every Saturday, depending on how hot the weather is.

A visiting runner who is staying near downtown New Orleans should visit Audubon Park, located across from Tulane University on famous St. Charles Avenue. If you go to River Drive, which is the street bordering the park closest to the Mississippi river levee, you'll find painted on the street pavement an S (3) mark. It's located past the Audubon Zoo, between the lagoon and the miniature railroad track, and is the starting place for an accurate three-mile course bordering the park.

This course runs counter-clockwise around the park. Traffic is a problem only when crossing Magazine Street, and it's not too bad there. Tulane students and others are usually out on this course. It borders the golf course and the zoo and ends 0.3-mile past the starting point. There is a finish mark also painted there on the pavement.

The levee along the Mississippi River is used by some runners. Riverside Drive, which is between Audubon Park and the river, is one local favorite starting place. The levee is not measured, however, and is used only for fun runs.

Most distance races in New Orleans are held in one of the two areas described here, although running is becoming more popular and nearly every residential neighborhood has its enthusiasts.

(For information about New Orleans area races contact Al Briede at 290 Bella Drive, Metairie, La.)

MAY COMING EVENTS

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

NORTHEAST

- 5 Met. AAU 20-kilometer, New York, N.Y. (Central Park, 11 a.m.; open; Road Runners Club, Box 881, FDR Station, New York, N.Y. 10022).
- 5 Berkshire Masters 10-mile, Westfield, Massachusetts (noon; Otto Essig, Westfield, Massachusetts 01085).
- 11 ITA Pro Indoor, Philadelphia, Pa. (ITA pros only).
- 11 Champlain Valley Marathon, Rouse's Point-Plattsburgh, N.Y. (noon; open; John Francis, YMCA, 13 Oak St., Plattsburgh, N.Y. 12901).
- 11 100-kilometer, 50-mile, Warren, Conn. (8 a.m.; open; Dean Perry, Ferry Bridge Rd., Washington, Conn. 06793).
- 12 N.E. AAU Marathon, Holyoke, Mass. (1 p.m.; open; Walter Childs, Box 1484, Springfield, Mass. 01103).
- 18 National AAU Women's 10,000 meter Champ., New York, N.Y. (Central Park; noon; open; Road Runners Club, P.O. Box 881, FDR Station, New York, N.Y. 10022).
- 26 Plodders 26-mile, Avon Mass. (noon; open; R.S. Campbell, 39 Linnet St., W. Roxbury, Mass. 02132).
- 29 ITA Pro Indoor Champ., New York, N.Y. (ITA pros only).
- ? International Masters Track, Washington, D.C. (Bob Jones, 3016 Edgewood Rd., Kensington, Md. 20795).

SOUTHEAST

- 10 ITA Pro Indoor, Atlanta, Ga. (ITA pros only).
- 17 ITA Pro Indoor, Louisville, Ky. (ITA pros only).
- 25 ITA Pro Indoor, Richmond, Va. (ITA pros only).
- 26 Bay-to-Bay 7.5-mile, Pinellas Peninsula, Fla. (8 a.m.; open; Tom White, 1250 Jungle Ave., St. Petersburg, Fla. 33710).

MIDWEST

- 3 ITA Pro Indoor, Cleveland, Ohio (ITA pros only).
- 4 ITA Pro Indoor, Detroit, Mich. (ITA pros only).
- 4 Indiana AAU One-Hour Run, Roches-

- ter, Ind. (Rochester high school; 6 p.m.; open; Steve Kearney, 1202-9 Jefferson, Chesterton, Ind. 46304).
- 12 Midwest RRC 50-kilometer, Chicago, Ill. (Stagg Field; 9 a.m.; open; Ken Young, NCAR, P.O. Box 1470, Boulder, Colo.).
- 18 Wisconsin AAU 20-mile, Madison, Wisc. (Madison to Stoughton; 9 a.m.; open; Lee Wilcox, 102 W. Prospect, Stoughton, Wisc. 53589).
- 19 Great Lakes Region 10-mile & 5-mile, Dayton, Ohio (Central YMCA; 1 p.m.; open; Phil Grady, Dayton Central YMCA, 117 West Monument St., Dayton, Ohio 45402).
- 23-5 NAIA National Champ., Arkadelphia, Arkansas (college).
- 25 Ann Arbor Sesquicentennial 15-mile, Ann Arbor, Mich. (open; Larry Steeb, 2025 Huron Parkway, Ann Arbor, Mich. 48104).
- 25 Mid-Mich. TC Mem. Day 5-mile, 10-mile, Holt, Mich. (Holt high school; 10 a.m.; open; Gordon Schafer, 4378 W. Holt Rd., Holt, Mich. 48842).
- 31-1 USTFF National Track & Marathon, Wichita, Kans. (invitational & open; Herm Wilson, Track Coach, Wichita State U., Wichita, Kans. 67208).
- 31-1 NCAA Division II Track, Charleston, Ill. (eligible collegians only).

SOUTHWEST

- 11 Oklahoma AAU One-Hour, Tulsa, Okla. (Broken Arrow high school; 8:30 a.m.; open; Vern Whiteside, 6916 South Knoxville Rd., Tulsa, Okla. 74136).
- 18 Okie Relays 40-mile, Texhoma, Okla. (high school and open; Bill Wooten, Texhoma, Okla. 73949).
- ? National Junior College Track, Pasadena, Tex. (eligible collegians only).

ROCKIES

- 18 USTFF Intermountain Track, Logan, Utah (invitational; Ralph B. Maughan, Track Coach, Utah State U., Logan, Utah 84321).
- 26 Mile-High Marathon, Denver, Colo. (7:30 a.m.; open; Alan Cunniff, 424 S. Clarkson, Denver, Colo. 80209).
- 26 RMAAU Marathon, Denver, Colo. (Platte River course; open; Joe Arrazola, 12336 E. Kentucky Ave., Aurora, Colo. 80010).
- 27 Lone Peak Marathon, Draper, Utah (Draper Park; 8 a.m.; open; Ben Peterson, 1054 E. 8600 S., Sandy, Utah 84070).

WEST

- 5 Avenue of the Giants Marathon, Weott, Cal. (9 a.m.; open; Dave McGrath, 1206 Oasis St., Arcata, Cal. 95521).
- 12 Southern Pacific AAU 50-kilometer, Pasadena, Cal. (Rose Bowl; 7:30 a.m.; open; Tom Cory, 515 N. Howard St., Glendale, Cal. 91206).
- 19 Bay-to-Breakers 7½-mile, San Francisco, Cal. (10 a.m.; open; Frank Geis, 942 Market St., Suite 601, San Francisco, Cal. 94102).

- 25 Larry Lewis Marathon, Tiburon-San Francisco, Cal. (8:30 a.m.; open; Richard Perry, 3909 Pepper Tree Ct., Redwood City, Cal. 94061).
- 26 MPRRC Hawaii 50-mile (open; Col. T.J. Ferguson, 1352 Parks Dr., APO San Francisco, Cal. 96558).
- ? Bakersfield Track Classic, Bakersfield, Cal. (invitational).
- ? Spokane Marathon, Spokane, Wash. (open; Ken Hendrix, S. 1621 McDonald, Opportunity, Wash. 99216).

CANADA

- 4 Canadian One-Hour, North Bay, Ontario (6 p.m.; open; Norman Patenaude, Laurentian Univ., Division of P.E., Sudbury, Ontario, Canada).
- 12 Metro. Toronto Marathon, Toronto Ontario (Centre Island; 11 a.m.; open; Mike Freeman, 154 Cactus Ave., No. 57, Willowdale, Ontario, Canada).
- 12 Eastern Canadian Marathon & Half-Marathon, Toronto, Ontario (Toronto Islands; 11 a.m.; open; Max Bacon, 175 Collier St., Toronto, Ontario, Canada).
- 20 Canadian 10-mile, Thunder Bay, Ontario (open; Don Domansky, 655 Dawson St., Thunder Bay, Ontario, Canada).
- 25 Lions Gate International Marathon, Vancouver, B.C. (7:30 a.m.; open; Don Basham (Race Director) 1505-1640 Aiberni St., Vancouver, B.C., V6G 1A7, Canada).
- 26 Ontario Marathon (Toronto area; 8 a.m.; open; Chris Pickard, Box 612, Station F, Toronto, Ontario M4Y 2J1, Canada).

INTERNATIONAL

- 5 International Marathon, Karl Marx Stadt, East Germany.
- 11 International Marathon, Maasluis, Netherlands.
- 19 International Marathon, Ankara, Turkey.
- 31 Comrades 55-mile, Durban-Pietermaritzburg, South Africa (The Comrades Marathon, Derek Palframar, P.O. Box 843, Pietermaritzburg, South Africa).
- ? World Vets Marathon, Draveil, France.

RACE WALKING

- 4 National AAU 15-kilometer walk, Los Angeles, Cal. (open; Bob Bowman, 1961 Windsor Place, Pomona, Cal. 91767).
- 12 National AAU Jr. 5-kilometer walk, Portland, Ore. (ages 19-under; Don Jacobs, Box 23146, Tigard, Ore. 97223).
- 25 National AAU 10-kilometer walk, Chicago, Ill. (Stagg Field; open; William Ross, Jr., 2835 N. Lincoln Ave., Chicago, Ill. 60657).
- 26 National AAU Jr. 25-kilometer walk, East Meadow, N.Y. (ages 19-under; Bruce MacDonald, 39 Fairview Ave., Port Washington, N.Y. 11050).

RACING HIGHLIGHTS

TRACK ROUNDUP

Never has the record list for one month been this long. The San Diego indoor meet alone accounted for six world marks—by Mary Decker, Tony Waldrop, Francie Larrieu and Patty Johnson—and nine American bests.

The records:

- 60 meters—6.4 by Vladimir Oststanov (Soviet Union), Moscow, February, tying world indoor record.
- 60 meters—6.4 by Clifford Outlin (US), Moscow, March 2, tying world indoor record and breaking American mark of 6.5.
- 60 meters (women)—7.1 by Irena Szewinska (Poland), Warsaw, Feb. 10, tying world indoor record.
- 70 meters—7.3 by John Carlos (US), Pocatello, Idaho, Feb. 23, unofficially breaking world indoor record of 7.5; pro race.
- 70 meters (women)—8.3 by Wyomia Simburg, Pocatello, Idaho, Feb. 23, unofficially breaking world indoor record of 8.7; pro race.
- 100 yards (women)—10.7 by Kathie Lawson (US), Pocatello, Idaho, Feb. 9, tying world and American indoor records.
- 200 meters—21.1 by Carl Lawson (Jamaica), Pocatello, Idaho, March 3, breaking world indoor record of 21.2.
- 220 yards—21.1 by Carl Lawson (Jamaica), Pocatello, Idaho, breaking world indoor record of 21.2.
- 300 yards—29.3 by Marshall Dill (US), East Lansing, Mich., Feb. 9, breaking world and American indoor records of 29.5.
- 400 meters—45.9 by Fons Brydenbach (Belgium), Sofia, Bulgaria, Feb. 17, breaking world indoor mark of 46.1.
- 600 yards (women)—1:18.4 by Yvonne Saunders (Canada), Toronto, Ontario, Feb. 15, breaking world indoor record of 1:20.5.
- 600 meters—1:18.8 by James Robinson, Oakland, Calif., Feb. 16, breaking American indoor record of 1:19.8.
- 800 meters (women)—2:07.0 by Mary Decker, Albuquerque, N.M., Feb. 2, breaking American indoor record of 2:07.3.
- 800 meters (women)—2:06.7 by Mary Decker, Los Angeles, Calif., Feb. 8, breaking American indoor record of 2:07.0.
- 800 meters (women)—2:01.8 by Mary Decker (US), San Diego, Calif., Feb. 17, breaking world indoor record of 2:02.7 and American mark of 2:06.7.
- 800 yards (women)—2:06.7 by Mary Decker (US), Los Angeles, Calif., Feb. 8, breaking world and American indoor records of 2:07.3.
- 880 yards (women)—2:02.4 by Mary Decker (US), San Diego, Calif., Feb. 17, breaking world and American indoor records of 2:06.7.
- 1500 meters—3:39.8 by Tony Waldrop,

San Diego, Calif., Feb. 17, breaking American indoor record of 3:42.4.

- 1500 meters (women)—4:18.2 by Francie Larrieu, New York, N.Y., Feb. 8, breaking American indoor record of 4:19.3.

- 1500 meters (women)—4:12.2 by Francie Larrieu (US), Toronto, Feb. 15, breaking world indoor record of 4:14.3 and American mark of 4:18.2.

- Mile—3:55.0 by Tony Waldrop (US), San Diego, Calif., Feb. 17, breaking world and American indoor records of 3:56.4.

- 3000 meters—7:50.0 by Steve Prefontaine, San Diego, Calif., Feb. 17, breaking American indoor record of 8:22.2.

- 3000 meters (women)—9:02.4 by Francie Larrieu (US), San Diego, Calif., Feb. 17, breaking world indoor record of 9:36.0.

- 2 miles—8:20.4 by Steve Prefontaine, San Diego, Calif., Feb. 17, breaking American indoor record of 8:22.2.

- 2 miles (women)—9:39.4 by Francie Larrieu (US), San Diego, Calif., Feb. 17, breaking world indoor record of 10:12.0 and American mark of 10:34.2.

- 3 miles—13:05.2 by Emiel Puttemans (Belgium), Vittel, France, Feb. 24, breaking world indoor record of 13:07.2.

- 5000 meters—13:34.2 by Miruts Yifter (Ethiopia), Louisville, Ky., Feb. 9, breaking world indoor record of 13:45.2.

- 5000 meters—13:30.8 by Emiel Puttemans (Belgium), Vittel, France, Feb. 24, breaking world indoor record of 13:34.2.

- 5000 meters—14:07.6 by Charles Maguire, Louisville, Ky., Feb. 9, breaking American indoor record of 14:31.0.

- 2-mile walk—13:24.0 by Larry Walker, New York, N.Y., Feb. 22, breaking American indoor record of 13:41.8.

- 60-yard hurdles—6.8 by Rod Milburn (US), New York, N.Y., Feb. 8, tying world and American indoor records.

- 60-yard hurdles (women)—7.4 by Patty Johnson (US), San Diego, Calif., Feb. 17, tying world and American indoor records.

- 55-meter hurdles—6.8 by Rod Milburn (US), New York, N.Y., Feb. 8, breaking world indoor record of 7.0.

- 60-meter hurdles—7.3 by Thomas Hill (US), Moscow, March 2, breaking world and American indoor records of 7.4.

- 60-meter hurdles (women)—7.9 by Grazyna Rabsztyń (Poland), Warsaw, Feb. 10, tying world indoor record of 7.9.

- 70-meter hurdles—8.7 by Paul Gibson (US), Pocatello, Idaho, Feb. 23, unofficially breaking world indoor record of 9.3; pro race.

- 100-meter hurdles—13.2 by Patty Johnson (US), Pocatello, Idaho, Feb. 9, breaking world and American records of 13.3.

- 3200-meter and 2-mile relays—7:20.8 by University of Chicago Track Club (US), Louisville, Ky., Feb. 9, breaking world and American indoor records of 7:23.6.

LONG DISTANCES

Tom Howard (2:16:28), Ron Wayne (2:17:45) and Russ Pate (2:19:30) led the fast field in the Trail's End marathon... Finns went one-two-three in the San Blas 13½-miler in Puerto Rico... Judy Ikenberry won the first national women's marathon, reported earlier in this issue... Results here received through March 6.

NORTHEAST

- Asbury Park, N.J., Jan. 20—Jersey Shore marathon: 1. Gary Wallace (24, Tri Cities RC) 2:27:05; 2. Gary Pierce (21, Shore AC) 2:27:14; 3. Joel Pasternak (23, Wm. Paterson College) 2:30:37; 4. Peter Kuchinski (20, No. Medford Club) 2:31:40; 5. Ray Morrison (27, Washington SC) 2:33:27; 6. Ernie Rivas (23, Lehman College) 2:33:47; 7. Roy Lapidus (18, No. Jersey Striders) 2:34:57; 8. Bob Bazley (22, Shore AC) 2:35:25; 9. Alan Sommerville (28, Harrisburg AA) 2:36:02; 10. Mike Scarborough (19, East Coast AC) 2:37:00... 18. Jim McDonagh (49, Millrose AA) 2:45:31... 65. Ted Corbitt (53, N.Y. Pioneer C) 3:04:37... 166. Eileen Disken (26, Cherry Hill) 3:41:35... 180. Elizabeth Sadoff (24, Washington) 3:49:05... 190. Nancy Lindsay (24) 3:57:31. (216 finished, 52 under 3:00, 143 under 3:30, 193 under 4:00; from Tom Baum).

- Columbia, Md., Jan. 27—15-mile: 1. Sheldon Karlin 1:20:02; 2. Mike Sabino 1:20:27; 3. Steve Mahieu 1:21:12... 15. Tony Diamond (44) 1:36:54... 39. Don Heinicke (50+) 1:49:14... 48. Marilyn Bevans 1:53:10. (57 finished, 4 under 1:30, 31 under 1:45; from Bob Thurston).

- Washington, D.C., Feb. 10—Kennedy Memorial 20-kilometer: 1. Bruce Robinson 1:06:08; 2. Tony Diamond (44) 1:09:56; 3. Bill Hoss 1:10:21... 7. Bob Horman (55+) 1:12:00. (77 finished, 12 under 1:15, 27 under 1:20; from Bob Thurston).

- New York, N.Y., Feb. 10—RRCA 20-kilometer: 1. Morgan Fennell (23) 1:05:27; 2. Joel Pasternak (23) 1:07:12; 3. Bill Bragg (24) 1:09:04; 4. Mike Scarborough (19) 1:09:04; 5. Ernie Rivas (23) 1:09:53; 6. Hugh Sweeny (27) 1:10:39... 16. Vince Chiappetta (40) 1:15:32... 18. Jim McDonagh (50) 1:15:40... 76. Donna Draycott (13) 1:35:03... 100. Ed Granowitz (60) 1:50:41. (106 finished, 13 under 1:15, 33 under 1:20; from Joe Kleinerman).

- Beltsville, Md., Feb. 17—Washington's Birthday marathon: 1. Sheldon Karlin (23, Washington SC) 2:26:26; 2. Gareth Hayes (24) 2:28:38; 3. Max White (23) 2:29:09; 4. Mike Sabino (34) 2:36:13; 5. Roger Rouiller (35) 2:38:55; 6. Topper Powers (19) 2:39:25... 13. Tony Diamond (44) 2:47:01... 22. Bob Horman (55) 2:51:53... 95. Kathy Switzer 3:14:40. (252 finished, 47 under 3:00; from Larry Noel).

- University Park, Penn., Feb. 17—Nittany Valley marathon: 1. Steve Molnar (24, Johnstown AC) 2:38:15; 2. Rick Katz (25, NVTC) 2:44:18, Carl Bechdel (20, PSU) 2:44:18; 4. Bill Dixon (20, PSU) 2:50:00; 5. Jay Barry (20, unat) 2:51:17. (28 finished, 5 under 3:00, 18 under 3:30; from Harry Groves).

SOUTHEAST

- Raleigh, N.C., Jan. 19—Raleigh marathon: 1. Ed Hereford (26) 2:24:44; 2. Gareth Hayes (24) 2:37:44; 3. Mike Naples (28) 2:42:31; 4. Lawrence Washington (19) 2:43:10... Mike Burns (19) 2:43:10. (26 finished, 14 under 3:00, 20 under 3:30, 24 under 4:00; from Russell Combs).

- New Orleans, La., Feb. 2—Mardi Gras marathon: 1. Norbert Sander 2:23:51; 2. Taylor Aultman 2:29:20; 3. Mark Marley 2:37:45;

4. Peter Soutullo 2:38:22; 5. Phil Gaff 2:39:39; 6. Johnny Lloyd 2:43:21; 7. Ronald Gaff 2:43:56; 8. Steve Grotzky 2:48:28; 9. Hugh Long 2:50:29; 10. Norman Bruce 2:51:11; 11. Charles LeBourgeois (40) 2:52:49; 12. Wendell Sullivan (48) 2:54:45; 13. Rick Garvey (15) 2:55:14. (43 finished, 13 under 3:00, 24 under 3:30; from Cy Quinn).

● St. Petersburg, Fla., Feb. 3—Suncoast 13.1-mile: 1. Mike Caldwell 1:16:35; 2. Lee Cohee 1:16:53; 3. Mike Klein (jr.) 1:21:04; 4. Herb Wills (13) 1:21:53; 5. Geoffrey Godfrey (jr.) 1:22:54; 6. Dennis Branham (40+) 1:23:42... 24. Sperry Rademaker 1:35:49. (56 finished, 2 under 1:20, 14 under 1:30; from Tom White).

● Colledale, Tenn., Feb. 3—Happy Valley 13.1-mile: 1. Heinz Wiegand (25) 1:09:25; 2. Tom Potter (19) 1:12:51... 5. Charles Gibson (50) 1:16:18. (34 finished, 7 under 1:20).

● Knoxville, Tenn., Feb. 16—Smoky Mountain marathon: 1. Tom Potter (19) Brian College TC) 2:42:28; 2. Charles Gobson (50, Chattanooga TC) 2:46:23; 3. W.C. Fanning (27, unat) 2:52:48. (16 finished, 5 under 3:00, 15 under 3:30; from Hal Canfield).

● Ft. Walton Beach, Fla., Feb. 16—Valentine Running Festival marathon: 1. Art Drevin (Troy TC, Ala.) 2:36:59; 2. Charles Thomas (Pensacola J.C.) 2:47:55; 3. Nick Costes (40+, Troy TC) 2:54:16... 6. Jimmy Hunter (10, NWFTC) 3:29:58... 8. John Oeltmann (61, FTC) 3:36:53. (9 finished, 3 under 3:00, 6 under 3:30; from Richard Westbrook).

● Ft. Walton Beach, Fla., Feb. 16—13-mile: 1. Rick Stetson (Troy TC) 1:21:24; 2. Theodore Frazier 1:27:42. (17 finished, 4 under 1:30; from Richard Westbrook).

● Ft. Lauderdale, Fla., Feb. 17—Ft. Lauderdale-Hollywood 20-mile: 1. Ray Russell 2:03:07; 2. Luis Restrepo 2:12:16... 9. Nathan Brenden (63) 2:27:21. (10 finished, 10 under 3:00; from Carl Foote).

● Raleigh, N.C., Feb. 17—20-kilometer: 1. Terry Gallagher 1:06:50; 2. Tommy Hess (23) 1:07:41; 3. Marshall Adams (28) 1:11:33; 4. Gary Griffith (16) 1:11:51. (20 finished, 12 under 1:15; from Russell Combs).

● Charleston, W. Va., Feb. 16—10-mile: 1. Carl Hatfield 52:33; 2. John Welch 52:54... 8. Gilbert Heffner (63) 1:21:40. (8 finished; from John Welch).

MIDWEST

● St. Louis, Mo., Jan. 27—30-kilometer: 1. Bob Fitts (31) 1:40:34; 2. Dennis Gyllenhaal (19) 1:51:48... 6. Ed Weber (42) 1:58:50... 16. Paul Ciaccio (67) 2:46:43. (17 finished, 7 under 2:00; from Carl Muckler).

● Madison Wis., Feb. 10—10-kilometer: 1. Don Fass 34:25; 2. Eric Braaton 34:25; 3. Frank Burns 34:46... 14. Lloyd Bostian (42) 38:45.

● Swanton, Ohio, Feb. 17—13-mile: 1. Rich Lachowski (23) 1:10:44; 2. Dan Cartledge (17) 1:13:31... 19. Karen MacHarg (25) 1:27:28... 25. Sy Mah (47) 1:34. (35 finished, 7 under 1:20; from Lou Wagner).

● Tucson, Ariz., Feb. 9—Arizona Admissions Day marathon: 1. Ken Young (32) 2:34:25; 2. Larry Hidalgo (17) 2:37:12; 3. Jan Ahlberg (39) 2:37:57; 4. David Cortez (15) 2:40:40; 5. Doug Heaberlin (19) 2:41:11

... 15. Frank Katterman (44) 2:59:37... 27. LeRoy Zimmerman (52) 3:11:57... 87. Lauri Jean Snider (14) 4:23:53. Teams: 1. Arizona Road Racers No. 2; 2. Southwest Truckers. (93 finished, 17 under 3:00, 47 under 3:30, 73 under 4:00).

● Tulsa, Okla., Feb. 16—Tulsa Running Club's 30-kilometer: 1. Larry Aduddell (28) 1:45:40; 2. Brent Wooten (23) 1:51:45; 3. Dan Metcalf (33) 1:53:53... 5. Tom Kempf (49) 2:04:09. (15 finished, 3 under 1:55, 5 under 2:05; from Vern Whiteside).

WEST

● Orange, Cal., Jan. 27—World Masters marathon: 1. Ron Kurrle (25, Beverly Hills Striders) 2:19:36; 2. Mark Kushner (23, UCLA) 2:25:12; 3. Ajim Baksh (17) 2:27:52; 4. Jim Arquilla (23, East L.A. TC) 2:29:52; 5. Bill Anderson (30, Santa Barbara AA) 2:39:01... 11. Dave Parker (43, Seniors TC) 2:43:11... 43. Al Corwin (50, STC) 3:03:00... 92. Al Clark (60, STC) 3:25:45... 99. Ralph Salcido (8, Blue Angels TC) 3:30:08... 114. Luanne Kralick (42, STC) 3:38:55... 119. Walt Frederick (66, STC) 3:40:01... 122. Gabrielle Olsen (15) 3:40:45... 129. Jim Bole (66, STC) 3:45:15... 158. Suzanne Bottlik (8, South Bay DR) 4:03:54... 159. Fred Grace (76, STC) 4:10:57. Teams: 1. Beverly Hills Striders 19; 2. Santa Barbara AA 23. (187 finished, 37 under 3:00, 98 under 3:30, 146 under 4:00; from Bill Selvin).

● Alameda, Cal., Feb. 2—Pan American 12-kilometer: 1. Tom Howard (Canada) 39:59; 2. Jim Nuccio (US, B) 40:16; 3. Rich Kimball (US, A) 40:23; 4. Don Timm (US, A) 40:29; 5. Mike Wagenbach (US, A) 40:50; 6. Carl Christensen (Canada) 41:05; 7. Robert Price (US, A) 41:28; 8. Mike Pinocci (US, A) 42:01; 9. Mark Covert (US, B) 42:18; 10. Mike Greery (Canada) 42:24; 11. Neil Sybert (US, B) 42:55; 12. Don Riggs (US, B) 43:14; 13. Humberto Hernandez (Puerto Rico) 43:51; 14. Luis Torres (Columbia) 48:34. Teams: 1. US, A 19; 2. US, B 34.

Pan-American Women's 4-kilometer: 1. Teri Johnson (US, A) 12:13; 2. Teri Anderson (US, D) 12:16; 3. Judy Graham (US, C) 12:24; 4. Cheryl Bridges (US, B) 12:34; 5. Jacki Hansen (US, A) 12:37; 6. Amy Haberman (US, B) 12:45; 7. Cindy Poor (US, C) 12:50; 8. Tina Anex (US, B) 12:59; 9. E. Guina (US, A) 13:03; 10. Kathy Adams (US, C) 13:12; 11. Arleen Mears (US, A) 1 5; 12. Sue Mundy (US, A) 13:33; 13. Kathy Costello (US, D) 13:43; 14. Rene Wolfe (US, B) 13:45; 15. Mary Cortez (US, C) 13:53; 16. Colleen McManus (US, A) 13:53; 17. Dominique Carron (US, D) 13:56; 18. Lisa Greenberg (US, C) 14:05; 19. Ronell Powell (US, D) 14:59; 20. Kathy Haughey (US, D) 15:14; 21. Meredith Mills (US, B) 15:33. Teams: 1. A, 15; 2. B, 18; 3. C, 20; 4. D, 32.

● Portland, Ore., Feb. 2—30-kilometer: 1. Fred New (22) 1:41:43; 2. Bob Ray (21) 1:43:30; 3. Wayne Ristau (25) 1:43:44; 4. Norm Oyler (31) 1:44:45; 5. Dave Hamilton (19) 1:45:04... 21. Clive Davies (58) 2:05:32... 42. Jane Underhill (29) 2:34:00. (46 finished, 18 under 2:00; from Ken Weidkamp).

● Las Vegas, Nev., Feb. 2—Las Vegas marathon: 1. Scott Bringham (25, Utah National Guard) 2:24:35; 2. Don Ocana (23, GWAA) 2:34:55; 3. Bill Brouillet (19) 2:38:56; 4. Tulley Mann (25, N. Arizona

U) 2:40:46; 5. Michael Naples (28, Penn. AC) 2:41:14; 6. John Pagliano (34, GWAA) 2:41:27... 9. Alex Ratelle (9, Twin City TC) 2:49:09... 30. John Walker (53, Las Vegas TC) 3:12:43... 32. Norman Bright (64, Snohomish TC) 3:17:28... 47. Sandy Brauer (35, Las Vegas TC) 3:33:16... 55. Gwen Brauer (11, 3:48:21. (61 finished, 20 under 3:00, 44 under 3:30, 57 under 4:00; from Bill Freedman).

● Eugene, Ore., Feb. 2—Oregon AAU 30-kilometer: 1. Russ Pate (OTC) 1:37:51, Ron Wayne (OTC) 1:37:51; 3. Damien Koch (OTC) 1:39:02; 4. Bob Gray (OTC) 1:46:35; (from Geoff Hollister).

● San Mateo, Cal., Feb. 10—National AAU Women's marathon: 1. Judy Kenberry (Rialto Road Runners) 2:55:17; 2. Marilyn Paul 2:58:44; 3. Peggy Lyman (WVTC) 2:58:55; 4. Maryetta Boitano (10, South End) 3:01:15; 5. Nina Kuscsik (Suffolk AC) 3:04:11; 6. Lucy Bunz (UC Med Center) 3:05:07; 7. Marjorie Kaput (Phoenix R) 3:07:46; 8. Jan Arenz (Twin Cities TC) 3:08:20; 9. Irene Rudolf (UC Med Center) 3:12:20; 10. Jenny Taylor (Cambridge SU) 3:12:27; 11. Joan Uilyot (UC Med Center) 3:13:13; 12. Marie Albert (Rialto Road Runners) 3:16:03; 13. Chris Sakelarios (Redwood City Flyers) 3:20:11; 14. Doreen Assuma (Rialto Road Runners) 3:20:59, Ruth Anderson (44, WRCD) 3:20:59. Teams: 1. UC Med Center; 2. Rialto Road Runners; 3. Redwood City Flyers. (from Jack Leydig).

● San Mateo, Cal., Feb. 10—West Valley marathon: 1. Jim Dare (West Valley TC) 2:26:05; 2. Bob Darling (Excelsior TC) 2:29:38; 3. Mike Conroy (ETC) 2:30:12; 4. Alex Aguilar (18, WVTC) 2:30:39; 5. Bob Nanninga (WVTC) 2:32:31; 6. John Loeschhorn (WVTC) 2:33:06; 7. Ross Smith (46, WVJS) 2:33:33... 208. Walt Stack (67) (SERC) 3:41:45. Teams: 1. West Valley TC 10; 2. Excelsior TC, 12; 3. West Valley J & S, 31. (from Jack Leydig).

● Seaside, Ore., Feb. 23—Trail's End marathon: 1. Tom Howard (Canada) 2:16:28; 2. Ron Wayne 2:17:45; 3. Russell Pate 2:19:30; 4. Ken Moore 2:20:00; 5. Larry Miller 2:22:06; 6. Joseph Skaja 2:22:28; 7. Guy Renfro 2:23:52; 8. George Oja 2:24:18; 9. James Pearson 2:25:57; 10. Curtis Ankeny 2:27:27; 11. Harry Shaw 2:27:43; 12. Richard Hebron 2:27:54; 13. Fred New 2:27:54; 14. Gregory Beverlein 2:29:26; Jack Taunton 2:30:28... Dennis Meyer (40+) 2:44:05... Scott Slovic (13) 2:45:15... George Sheehan (50+) 3:01:25... Norman Bright (60+) 3:09:44... Maria Brzezinska 3:14:40.

INTERNATIONAL

● Coamo, Puerto Rico, Feb. 3—San Blas 13.6-mile: 1. Lasse Viren (Fin) 1:06:17; 2. Seppo Tuominen (Fin) 1:06:49; 3. Tapio Kantanen (Fin) 1:07:15; 4. Neil Cusack (Ire) 1:07:24; 5. Tom Fleming (US) 1:08:12; 6. Don Faircloth (England) 1:08:13; 7. William Rodgers (US) 1:08:28; 8. Gilberto Serna (Col) 1:08:38; 9. Mario Cuevas (Mex) 1:08:51; 10. Eddy Leddy (Ire) 1:08:58; 11. Gary Tuttle (US) 1:09:21; 12. Kenji Kimijara (Japan) 1:09:29... 15. John Vitale (US) 1:10:40... 17. Bob Moore (Canada) 1:11:15... 27. Wolf Schamberger (Canada) 1:14:00. (120 finished, 30 under 1:15, 44 under 1:20; from Pedro Rivera).

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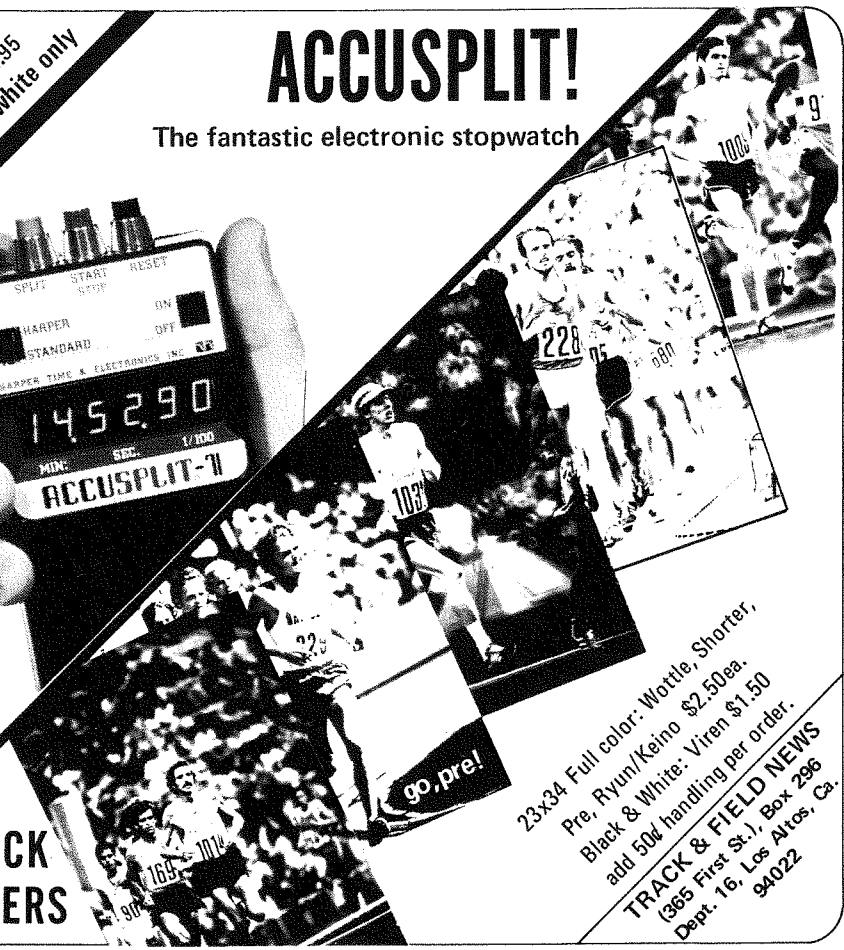
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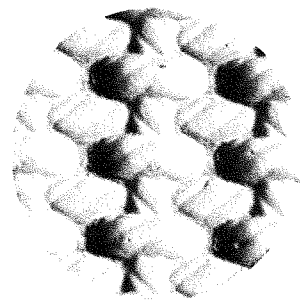


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READERS' COMMENTS

WOMEN'S AAU

Whenever I think about that race (the first national women's marathon) and the events surrounding it, I feel good. Of course getting a good time (2:58) and placing second were thrilling to me, but just participating was the important thing. I got the feeling that we weren't competing against each other as much as we were running together. It wasn't just to show that women could do it, but a strong positive feeling of shared energy and strength. And how nice it was to run with one's peers! Each of us knew what it is like to be a woman distance runner, and a good one. We weren't alone anymore.

*Marilyn Paul
Portland, Ore.*

QUALIFICATION

Your advocacy of different qualifying times for men and women in the Boston marathon ("Editorial," Feb. 74) misses the point. The idea is not only to limit the field but also to end the race, so that officials may leave their posts, the small army of police required for traffic control may return to normal duties, and the roads may be given back to the cars.

As long as officials and police must stay on duty, it doesn't matter whether the runners are men or women. To have different standards would only prolong the race—and if it's to be prolonged, why not prolong it for as many runners as possible, men as well as women?

*Roberts French
Pelham, Mass.*

OUR MISTAKE

In the "Looking at People" section of the February issue, you have the name of June Chun under the picture of Bridget Cushen and Bridget's name under June's

PHOTO CREDITS: Page 18—Jan Thompson by Mark Shearman. 19—Glenda Reiser by Bill Herriot. 20—Masters Tour by George Conlan. 31—Drawing by Bil Canfield. 36—Ron Clarke by David Pain; Jim Ryun by Bill Herriot; Peter Snell by Mark Shearman.

photo. You might also be interested to know that Bridget (who is Irish) isn't the first woman to officially run a marathon in Britain. That honor goes to Gale Grieg, who completed the Isle of Wight marathon in 3:27:45 in 1964.

Any publicity you could give to our long distance girls in Britain would be greatly appreciated, because it might encourage more British girls to participate and perhaps (women's) long distance running in Britain could reach the same sort of standard that it has in the USA.

*Laraine Holt
Swansea, United Kingdom*

HIGDON'S IDEA

Hal Higdon strikes again! What a marvelous idea ("Readers' Comments," Feb. 74) about a mass marathon at the Montreal Olympics. The great ideas are the simple ones. Why *not* a truly open event at the '76 Olympics, a marathon for everyone?

My only suggestion would be to insist that entrant's have completed at least one marathon. Otherwise, the field would be overrun with a million kids who think they can do the distance without ever having tried, and you would have about 95% attrition.

I wouldn't underrate the Canadians. They are much more receptive to unusual, interesting or goofy ideas than we (in the US) are.

*Geoffrey Orton
Rensselaer, NY 12144*

THE NAIA

There are certain dangers in comparing the various levels of competition. In a recent article ("They Thought They Could Win," Jan. 74), it was inferred that Charles Virgin of Adams State had not performed up to par due to his school's affiliation with the NAIA (National Association of Intercollegiate Athletics); that this affiliation had limited his experience against quality competition.

I would like to voice a strong protest against this inference. This year, for example, Adams State competed against Colorado, Eastern New Mexico, Brigham Young, etc.—all teams that have a strong tradition in distance running.

In addition, there are NAIA distance runners capable of challenging the most able runners, regardless of affiliation. They include: Mike Boit, Rex Madaford and Philip Ndoof of Eastern New Mexico; Tony Brien of Marymount; Lucien Rosa of Wisconsin/Parkside, and Tommy Fulton of Texas Southern.

Granted, the NAIA is a small college organization, but I think if you look

at past results in both track and cross-country, you will agree that it currently has and has had in the past a high level of competition.

*Jack Hazen
Coach, Malone College
Canton, Ohio*

COVERAGE

The TV and newspaper coverage running gets (if we are lucky enough to get any) does not promote the sport, nor does it educate the population. For example, we got a writeup about our Atlanta marathon. The article was enough to scare anyone away from distance running. All the article talked about was pain, bleeding, barking dogs, irritated policemen, etc. This article missed the whole idea of distance running.

*Don Gamel
East Point, Ga.*

WALKERS

Congratulations. The cover photo showing race walkers (Feb. 74) is the first one to appear on your magazine since 1968 when Ron Laird was featured. Walkers have been overlooked for a long time. I thank you for finally giving this fine sport some coverage.

*Bob Whitney
Waltham, Mass.*

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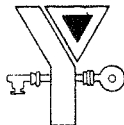
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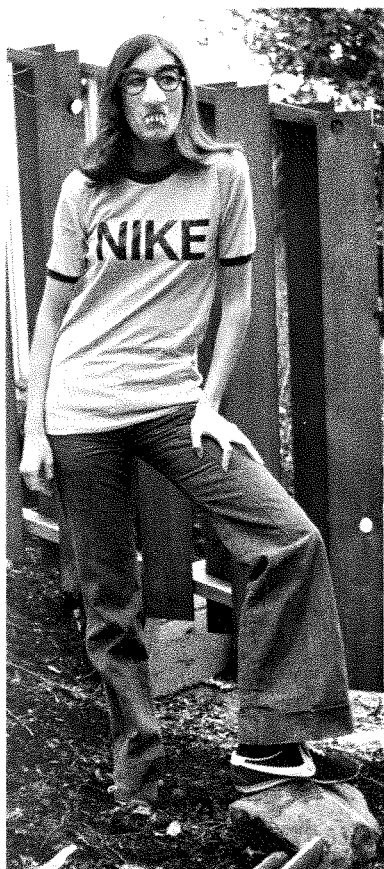
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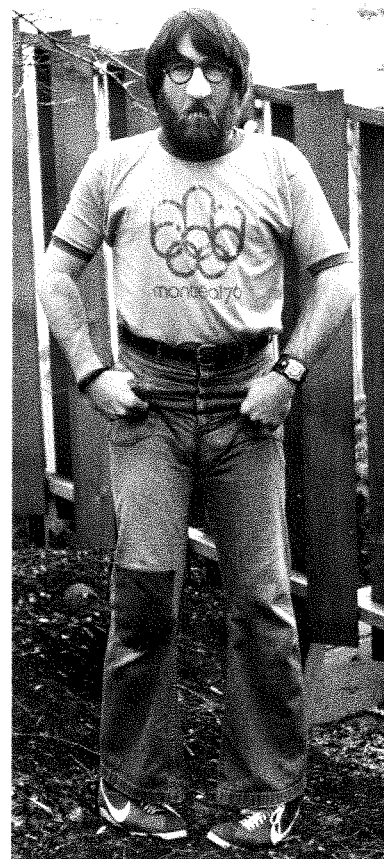
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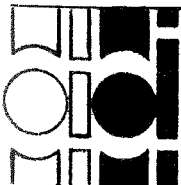
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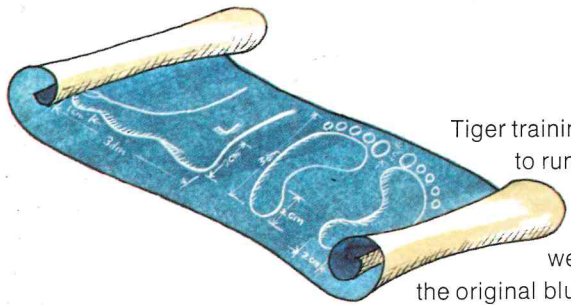


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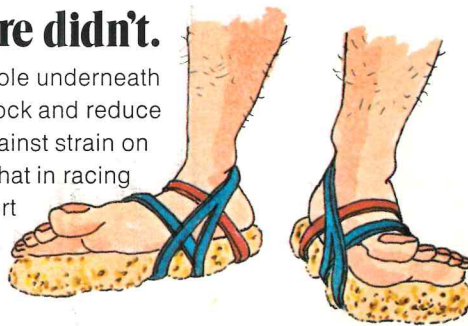
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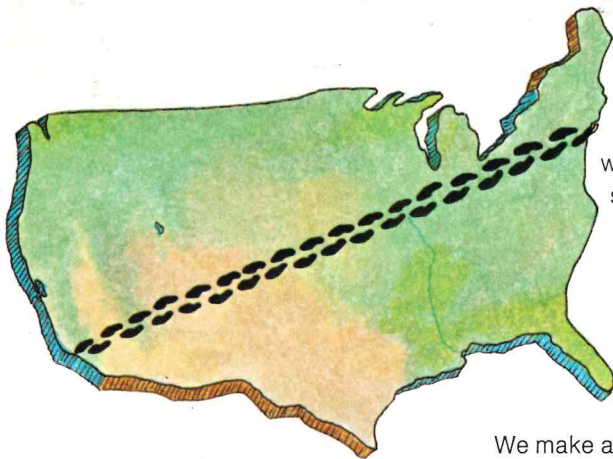
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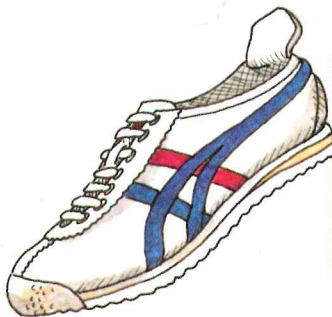
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