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RUNNER'S WORLD

VOLUME — Seven

May, 1972

NUMBER — Three



COVER:

Gaston Roelants was said to be on the way down. He wasn't even Belgium's top man any longer. Yet he won his fourth International cross-country championship at age 35. The first had come 10 years earlier. (M. Shearman)

RUNNER'S WORLD

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CONTENTS

- 9 INTERVIEW/STEVE PREFONTAINE—Outspoken young star.
- 20 ON THE INTERNATIONAL CIRCUIT—Five-part feature.
- 28 ONE IRISHMAN WITHOUT LUCK—Injury-plagued O'Reilly.
- 44 THE LEGACY OF ACHILLES—Treating tendon troubles.

Matters of Opinion	5	Coaching Against the Odds	36
Running/Walking Highlights	6	Women's Wanderings	37
Coming Events	8	Working It All Out	38
Down with Boston's Barriers	14	Employer Support	40
Running and Swimming	16	Wise Investment	40
Go Jump in a Lake	17	Race Walking Report	41
Hilton Makes an Impression	19	Listening to the New Beat	43
Dangers of the Highways	27	Running Problems	49
Road to Munich	30	How Courses Measure Up	50
Olympic Trials Qualifiers	31	Medical Advice	51
The Super Runners	32	R. W. 24-Hour Relay	52
Winners in Nature's Olympics	34	Readers' Comments	54

FROM THE PUBLISHER

We are just short of our goal of 10,000 subscribers, but close enough to come through with my part of the deal. Starting with this issue we have set a minimum of 56 pages for our issues (unless our advertising falls off, and then we may be forced back to 48 pages). I want to thank everyone that helped us reach our goal. I hope you will continue to help us grow.

You will notice several changes with this issue. First of all, we have used more pictures than we have for several issues. They do take up a lot of space and we would like to know if you feel it is worth taking up the space.

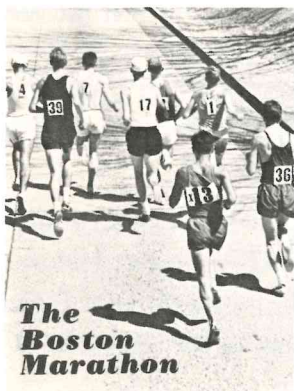
Also, we have changed a few regular features. Hal Higdon's column "On The Run" does not appear in this issue under that name but his article still appears. From now on, we will put a regular headline on his articles—this issue it is "Dangers of the Highways." We have also cut "Worth Repeating," "Spotlight on England and Europe," "Striding Along," and "Distance Running Scene." Our thinking was that we had too many columns. At times, we would produce something just to fill the column. Without the regular columns, we can use the space for good fresh features. When we say cut we mean that the column will not appear under their former names. We will continue to use Wilf Richards' better feature material but under a descriptive headline. The same applies to the other columns.

We have also added a column called "Running Problems." We had so many letters on the two problems presented in the March issue in my column "Striding Along" that we thought we would present this new column just as long as there is interest.

We are going to have a special Pre-Olympic issue this year to help you enjoy the Games even more. The issue will be September's but we will be mailing it early—about Aug. 10. If you are interested in advertising in or writing for this issue, please note the earlier mailing date.

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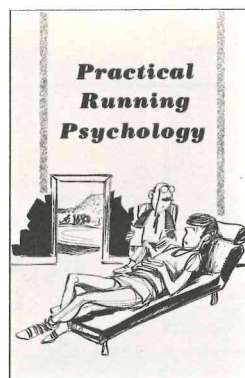
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MATTERS OF OPINION

I have an idea for a format for a senior mile which might be worth considering. It is a mile race in which the men over age 40 run a true English mile and the men over 50 run 1500 meters. Both groups start at the same time, but at different starting lines. The difference in distance run is about right to compensate for the difference in age. It is thus a handicap mile, but with one major distinction from the usual handicap: each group runs a standard distance.

I suggest calling this race the "smile"—S for senior, mile for mile; or, if you prefer, a less flattering contraction: "senile."

—ALAN WATERMAN

How about the idea of limiting US runners to one event in the Olympic Games? If you will remember 1968, George Young took a spot in the steeplechase and a spot in the marathon. By taking the marathon spot, he deprived a young runner, Bob Deines, of a chance of participating in the Games.

I thought the idea was to play the game, not to see how many medals one could accumulate. We have a great depth of athletic talent in the US. Why not spread opportunity around? If a man qualifies for, say, the 10,000, let him have that spot. If he qualifies for the marathon also, make him give up one of the events so another athlete will have the chance to participate.

—JOHN PAGLIANO

All runners deserve to receive their places and times as quickly as possible after a race. Unfortunately, this information is often slow in coming. As race fields grow, long and tedious waiting lines are the rule as runners wait at the finish to report their places. Even when these lines don't materialize, it is still rare when the interval between finishing and receiving the results isn't substantial.

Much of this delay can be eliminated by making a few changes prior to and after the race. As runners check in before the start, give each a gummed sticking label (cheaply purchased at any stationery store), along with a paper clip or two. Write on the label the runner's name, age or division, team, or other desired information. (Ink color coding will speed the post-race recording even more.) Peel off the backing and secure the label to the top front of the running shirt with the paper clips. No pins or numbers are necessary.

A finish line chute is worth the effort involved in assembling it because it facilitates accurate placing and timing. Times of each runner are checked off as he finishes. Near the rear of the chute, the runner's label is removed and stuck—in order of finish—to a large board. If, by chance, one label is lost en route, spares are kept by the results board and the person in charge detains the runner for a moment, obtains the required information, and sticks his label with the others.

Instantaneously, you have the names and places of every contestant for everyone to see. Times are added to the labels as soon as they're available. Marking finish posi-

tions also is wise in case a label drops off the board.

Shortly after the last person has completed his run, full results should be ready. The person in charge can read the data directly from the board and can award available prizes without delay. Divisional and team results are easily obtained. Runners and spectators can see the results immediately, while the time-consuming job of transferring this material to paper can wait until later. This method eliminates unnecessary waiting at the end of a race, and makes for a pleasanter event.

—BOB RONCKER

If you asked me, "Who had the most physical talent you ever saw in the Boston marathon?" I am sure you'd expect me to reply, "Ron Hill" or "Jim Peters" or "Abebe Bikila" or "The Japanese."

I wouldn't. Without question the most magnificent physical specimen who ever came down the course was Ellison (Tarzan) Brown, that crazy, non-trained Narragansett Indian from a reservation in Rhode Island. No training and no discipline, at all. Yet he won the race twice and broke the record. His checkpoint records from the start to 23 miles survived until just recently, and his interval times as far as Lake Street (21.67 miles) are right up there with everybody excepting Ron Hill. Brown died at the end.

Tarzan, a brawling individual, grew up on a reservation in Westerly, R.I. I traveled down to the reservation to do a story on him just before his 1939 record race. I'd heard he was training hard. "Real hard," Tarzan told me. Like what? "Choppin' wood." He trained at the woodpile and ran a 2:28 marathon. Incredible.

Fred Tootell, the old Olympic hammer champion then coaching at the University of Rhode Island, didn't believe stories of Brown's natural speed. He had a friend drive Tarzan to Kingston one day and had Tarzan run a mile on the track against the watch. In sneakers, Tarzan did 4:23 and was mad. He thought it was six laps around.

Brown led the 1936 Olympic race for 12 miles, then sat down at the side of the road. Quit. Had a tummy ache. When he got home to Westerly, he took a bad riding about it. So he entered two marathons on succeeding days—at Yonkers, N.Y., and Manchester, N.H.—to vindicate himself. He won them both, hitchhiking the 150 or more miles between sites.

The next week, he collapsed by the side of the road in Westerly. A motorist found him and rushed him to the nearest hospital. Double hernia. Here's a guy who ran three marathons, at least, with a double hernia.

One of track's greatest tragedies is that Ellison Myers Brown hadn't matured under the influence and direction of a good coach. I've covered track at every level from Olympics to campus duals for a helluva long time, so believe me when I tell you that—under more appropriate circumstances—Tarzan Brown would have left Frank Shorter and Kenny Moore for dead, and would have forced the 2:05 marathon on Ron Hill that Ron is always talking about.

—JERRY NASON

(Sports Editor, Boston Globe)

RUNNING HIGHLIGHTS

● **San Blas, Puerto Rico, Feb. 6**—One of the finest fields ever assembled in the western hemisphere raced the San Blas International half-marathon. Colombian Victor Mora upstaged several bigger names with a 1:04:23 victory. Olympic marathon champion Mamo Wolde was next. Ron Hill finished seventh, and Art Coolidge led US runners with 11th place.

● **Ft. Walton Beach, Fla., Feb 19**—Jeff Galloway added to Florida's new-found reputation as a marathon center by running 2:19:34 as a guest in the Interservice race. Don Kennedy of the Army was next with 2:26:59.

● **Cincinnati, Ohio, Feb. 20**—Brenda Webb collected two "world records" during a 10-mile track race. She went 9 miles 1625 yards in an hour and finished the 10 in 1:00:30.6—both bests-ever by a woman.

● **New York, N.Y., Feb. 25**—The three-mile was the highlight of distance competition at the AAU indoor championships. Emiel Puttemans ran 13:18.4 to beat Leonard Hilton (13:19.4) and Don Kardong (13:19.8); four others did 13:25 or better. Other winners: 1000—Josef Plachy 2:09.8; mile—Byron Dyce 4:01.8; mile walk—Dave Roman-sky 6:13.4; women's 880—Cheryl Toussaint 2:08.2; women's mile—Doris Brown 4:44.0.

● **Seaside, Ore., Feb. 26**—Gerry Lindgren learned the realities of marathon racing. After running world record pace early, Gerry fell to fifth at the end. Russ Pate won from a field of over 400 in 2:22:59.9.

● **Los Angeles, Calif., March 4**—The Ryun-Liquori mile match didn't come off. Marty was injured, and Jim experienced continued troubles, placing seventh (and last) in 4:19.2. Meanwhile, Tom Von Ruden won in 3:57.8, and half-miler Mark Winzenried (3:59.5) and 34-year-old George Young (3:59.6) both broke four minutes for the first time. Young is the oldest to do so.

● **Seattle, Wash., March 4**—The women ran a trial for the International cross-country race. Doris Brown beat Eileen Claugus in a close race, 13:27 to 13:31 for 2½ miles. Tena Anex, Caroline Walker, Debbie Roth, Beth Bonner and Jane Hill also qualified.

● **Middletown, Conn., March 5**—John Vitale added a new sub-2:20 marathon to the growing list. He ran 2:19:01.5 in the Connecticut AAU race, winning by over 17 minutes.

● **Dallas, Texas, March 5**—Paul Hoffmann, touted as a hot marathon prospect since high school, improved by 10 minutes to win the White Rock race in 2:23:18. Hoffmann is 19.

● **Detroit, Mich., March 10-11**—Bowling Green State runners Dave Wottle and Sid Sink both figured in two wins at the NCAA indoor championships. Wottle won the 880 in 1:51.8; Sink took the two-mile with 8:36.6. They ran the last two legs on their team's winning distance medley relay which did 9:49.6. Other winners: 1000—Mike Mosser 2:08.9. Mile—Ken Popejoy 4:02.9. 2-mile relay—University of Illinois 7:30.0.

● **Tunis, Tunisia, March 11**—The only place a US men's team ran internationally in cross-country was at the military championships. Moroccans Haddou Jaddour, Mohamed Ben Abdeselem and Lahsen Lhachmi ran one-two-three, while Americans were packed between 10th and 19th places. Fred Lands was 10th.

● **Sacramento, Calif., March 11**—Four new runners became 100-mile finishers (or "survivors," if you wish). Ken Young (14:14:39), Darryl Beardall (15:38:38), Ralph Paffenbarger (16:42:58) and Paul Reese (17:15:34) all made it. The latter two are 49 and 54 years old.

● **Grenoble, France, March 11-12**—Tamara Pangelova of the Soviet Union lowered the women's indoor 1500-meter record to 4:14.6 at the European championships. Other winners: women's 800—Gunhild Hoffmeister (EG) 2:04.8; 800—Josef Plachy (Cze) 1:48.8; 1500—Jacques Boxberger (Fr) 3:45.7; 3000—Juris Grustins (SU) 8:03.0.

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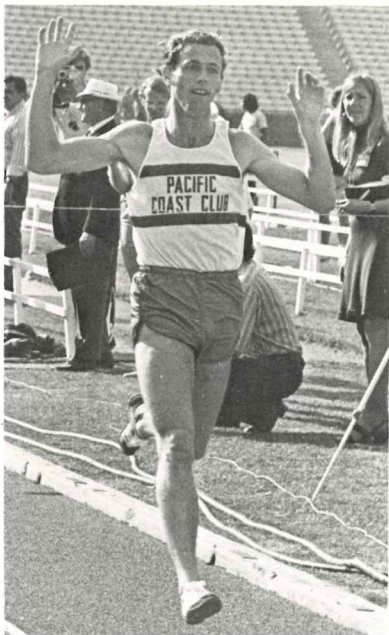
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Gerry Lindgren (282) takes the lead immediately in the Trail's End marathon—his first. (S. Herriot)



LEFT: Tom Von Ruden's 3:57.8 mile at Los Angeles. (Chadez)



ABOVE: Debbie Heald after her record indoor mile. (J. Goegel)

LEFT: Dave Romansky leads Soviets Golubnichiy and Smaga at Richmond. (John Goegel)

● **El Cajon, Calif., March 17**—Billy Mills, who apparently is nursing Olympic ambitions, won a half-marathon in 1:05:27—three minutes under the record for a tough course.

● **Richmond, Va., March 17**—The young girls were superb in the US-USSR indoor meet. Debbie Heald, 16, ended up setting a world indoor mile record of 4:38.5 after an erratically paced race. She beat world 1500 record holder Tamara Pangelova (who ran 4:38.9 here) and Doris Brown (4:40.1). Doris' old world mark had been 4:40.4. Wendy Koenig, also 16, won the 880 in 2:11.0. Men's winners: 1000—Ivan Ivanov (SU) 2:09.6; mile—Mikhail Zhelobovsky (SU) 4:02.9; 3-mile—Leonard Hilton (US) 13:28.2 (Don Kardong second in 13:29.2).

● **Cambridge, England, March 18**—With Doris Brown out of the International cross-country after five straight victories, the young US girls filled in well. Eileen Claugus, 16, came within two seconds of winning. She lost to England's Joyce Smith, 16:11 to 16:13, over four kilometers. Caroline Walker of the US finished ninth. Dave Bedford didn't defend his men's championship. That race went to Gaston Roelants, who beat Mariano Haro of Spain by a comfortable 18 seconds. Roelants ran 37:43 for 12 kilometers.

● **New York, N.Y., March 19**—Tom Hollander, a little known 19-year-old from Connecticut, won the Cherry Tree marathon in Central Park with 2:23:17.6. The nearest finisher in the field of 253 was over a mile back.

● **Gainesville, Fla., March 22-25**—The Florida Relays was filled with fine distance running. Jack Bacheler and Frank Shorter tied in the six-mile with their best times ever: 27:22.8. Tom Laris also ran his fastest with 28:38.0. Jim Ryun turned in relay legs of 1:48.6 (880) and 2:56.3 (1320). Ken Misner ran 2:18:39 in his first marathon.

● **Bakersfield, Calif., March 25**—Steve Prefontaine wanted to run something that the Europeans would notice. He tried his first track six-mile. The result: 27:22.4—third-fastest ever run by an American.

● **Austin, Texas, April 7**—The last few months have brought Jack Bacheler and Jim Ryun precious little encouragement, but they appear well on the way out of their troubles now. Bacheler ran his second fast six-mile in three weeks with 27:47.6 (beating Frank Shorter, 28:25.4). Ryun met the Olympic 880 qualifying standard with 1:48.1.

● **Eugene, Ore., April 9**—It had to be one of the fastest marathons ever run in the United States. Seven men finished; last was 2:35. Kenny Moore qualified for the Trials with 2:20:26, beating Wayne Badgley by 10 seconds.

RACE WALKING

● **New York, N.Y., Feb. 25**—Dave Romansky has gotten back to form quickly after a down year in 1971. He won the AAU indoor mile walk from a fit Ron Laird, 6:13.4 to 6:14.6. Larry Walker finished next with 6:17.5.

● **San Francisco, Calif., Feb. 27**—Bob Kitchen, who already held American records at lesser distances, got one of the most prestigious marks by lowering the 50-kilometer track best to 4:13:35.8. En route, Bob broke US records at 40 kilometers (3:20:00), 25 miles (3:21:16) and 30 miles (4:04:35).

● **Richmond, Va., March 17**—Dave Romansky gave Soviet international champions a good race at three miles in the US-USSR dual. Nikolay Smaga won the walk in 20:08.0, Vladimir Golubnichiy did 20:11.2 and Romansky was close with 20:12.8—an American record.

● **Hollywood, Calif., March 19**—Larry Young gathered speed for an Olympic bid at 50 kilometers by winning the AAU 35-kilo in 2:52:41. Second-place Bob Bowman did 3:01:22.

● **Seattle, Wash., April 9**—Larry Young handily won another national AAU title, this time walking 25 kilometers in 1:57:28. He passed 20 kilometers in 1:33:25.

COMING EVENTS

These are the major events—primarily US races—scheduled between mid-May and the end of July. Though there is a separate listing of walking races, many of the “running” meets also include walks. All known US and Canadian marathons during the period are included. For further information on these and dozens of other races, plus up-to-date results, see “Racing Report”—the twice-monthly newsletter published by RW.

MAY

- 12-3 West Coast Relays, Fresno, Calif.
- 13 Champlain mar., Plattsburgh, N.Y.
- 14 King Games, Philadelphia, Pa.
- 19-0 Pac-8 Conference, Stanford, Calif.
- 20 El Paso Invitational, El Paso, Tex.
- 20 Bakersfield Classic, Bakersfield, Cal.
- 21 AAU marathon, Liverpool, N.Y.
- 26-7 NCAA College, Ashland, Ohio
- 26-7 Central Collegiate, Carbondale, Ill.
- 26-7 IC4A, Philadelphia, Pa.
- 26-7 USTFF Championships, Wichita, Kans.
- 27 USTFF marathon, Wichita, Kans.
- 27 California Relays, Modesto, Calif.
- 27 Golden Gate mar., San Francisco, Cal.
- 27 Palos Verdes marathon, P.V., Calif.
- 27 British Columbia mar., Vancouver, B.C.
- 28 Mile-High marathon, Denver, Colo.
- 28 Plodders marathon, Brockton, Mass.
- 31-2 NAIA Championships, Billings, Mont.

JUNE

- 1 NAIA marathon, Billings, Mont.
- 1-3 NCAA Championships, Eugene, Ore.
- 10 International H.S., Mt. Prospect, Ill.

- 10 Kennedy Games, Berkeley, Calif.
- 11 Race of Champions mar., Holyoke, Mass.
- 11 Cyclone Country marathon, Ames, Ia.
- 11 Western Canadian mar., Calgary, Alberta
- 11 Yonkers marathon, Yonkers, N.Y.
- 15-7 AAU Men's Championships, Seattle, Wash.
- 17 Golden West High School, Sacramento, Cal.
- 17-8 Senior International, Los Angeles, Calif.
- 18 Longest Day mar., Brookings, S.D.
- 18 Glass City marathon, Toledo, Ohio
- 23-4 US Junior AAU, Lakewood, Colo.
- 24 Canadian Championship mar., Montreal
- 24-5 AAU Junior Women's Poplar Bluff, Mo.
- 25 Senior International mar., Culver City, Cal.
- 27-8 AAU Girls' Championships, Canton, Ohio
- 29-9 Men's Olympic Trials, Eugene, Ore.
- 30-1 AAU Women's Champs, Canton, Ohio

JULY

- ? AAU one-hour, Santa Barbara, Calif.
- 1 AAU Junior 20-kilometer, Aurora, Colo.
- 1 Canada Day marathon, Scarboro, Ont.
- 2 Whitewater marathon, Whitewater, Wisc.
- 2 Freedom marathon, Monticello, Ill.
- 2-4 AAU Masters, San Diego, Calif.

- 3 AAU Masters marathon, San Diego, Cal.
- 7 Olympic Trial marathon, Eugene, Ore.
- 8 Mountain marathon, Boone, N.C.
- 8 Redwood Empire marathon, Arcata, Cal.
- 8-9 Women's Olympic Trials, Frederick, Md.
- 17 Northwest Senior mar., Gresham, Ore.
- 22 Canada Day marathon, Toronto, Ont.
- 23 Mt. Evans marathon, Mt. Evans, Colo.
- 24 Pioneer marathon, Salt Lake City, Utah

RACE WALKING

MAY

- 13 Western Hemisphere 20-km., Sharon, Pa.
- 14 AAU Junior 15-km., Portland, Ore.
- 14 20-kilometer, San Francisco, Calif.
- 21 AAU Senior one-hour, Lawrenceville, N.J.
- 27 AAU Senior 10-km., Chicago, Ill.

JUNE

- 3 20-kilometer, Greenwich, Conn.

JULY

- 1 Olympic Trial 20-km., Eugene, Ore.
- 4 Olympic Trial 50-km., Eugene, Ore.
- 27 AAU Senior 15-km., Northglenn, Colo.
- 30 AAU Junior one-hour, Long Branch, N.J.

RELAY RUN TO THE OLYMPIC TRIALS

To show our support for the Americans participating in the Olympic Trials, the Napa Kiwanis Club and Napa Valley Runners are sponsoring a relay run to Eugene, Oregon—570 miles. The relay will begin in Napa, California, about four days prior to the beginning of the trials, June 29th. Money will be collected from the various towns along the way by the Kiwanis Clubs and given to the lead runner to be presented to the Olympic Officials in Eugene, Oregon.

- Runners will run only during daylight hours (5:00 AM to 9:00 PM)
- Runners will stay in nearby towns where some overnight accommodations will be provided by Kiwanian members.
- Teams will be composed of ten members and two alternates. Only ten teams will be accepted.
- Special Olympic shirts will be provided runners.
- Team lists must be submitted by June 1st deadline.
- Entry fee will be \$5.00 per member.
- Acceptance of any team will be the final decision of the Napa Valley Runners.

For further information contact:

Mike Healy, 690 Costa Drive, Napa, Calif. 94558 (707) 224-1603

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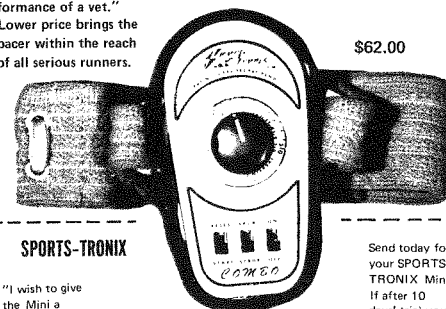
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Runner's World Interview:

STEVE PREFONTAINE

BY ONA DOBRATZ & JANET NEWMAN

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

Without a doubt, Prefontaine is colorful and confident. Victory laps with blown kisses are his trademark. He hands out bright and immodest quotes to the press.

The popular image of Steve Prefontaine is that he is, using his own words, "an egotistical slob." This interview with him doesn't support the image. Sure, he's confident. A better word is "honest" because he has the deeds to back up his boasts. He speaks very honestly about the fact that he's the fastest three-miler/5000-meter man in the United States and is a leading Olympic contender. Why shouldn't he? It's true.

But there's another side, a quieter and more introspective one, to the 21-year-old's honesty. He freely gives credit to his coaches, Bill Bowerman and Bill Dellinger. Steve

says he's a "sensitive" individual who tunes in on the feelings of the audience. If they reject him, he's easily hurt. But if they're with him, "it really turns me on." He says he considers himself a performer and an artist when he's racing. And he's in the process of writing a book—on running in general, not on himself. "I don't think I have anything yet to offer in a biography," he says.

Little of the Prefontaine cockiness, if such exists, was apparent to us when we interviewed him in early April. Shortly before that, he had run his first six-mile—a near-solo 27:22. It had been part of his well-planned Olympic buildup.

As we talked, Steve gave quiet, thoughtful and open answers to everything we asked.

RW: You ran 27:22 (third-best in US history) in your first six-mile race. Can you tell us about it?

Prefontaine: It was a very funny race because of the simple fact that I was running at a different pace. I was running 68s (68-second quarters) instead of 64s and 65s. But



LEFT: Miris Ifter of Ethiopia goes into his infamous early sprint against Prefontaine in last summer's US-Africa meet. (Penny Crowell)

RIGHT: Prefontaine as a high school senior in 1969. (Jeff Johnson photo)



Pre-race Prefontaine
(Bill Herriot photo)



RW Interview

it was really neat in another way because I felt like I could keep on going; I could have run 68s and 69s all day long. It really wasn't a hard race, even though now (two weeks later) I'm still feeling the effects from it. Running 27 minutes takes a lot more out of you than you really realize.

The next time I run a six-mile—if I run one—I'll probably take a two- or three-day rest, where I'll only cover maybe six or seven miles (a day) at the most. This time, and it was more of a learning experience this time than anything else, I rested one day (ran eight miles). But the day after that, I started my hard training again, and I'm still feeling the effects of it because I don't think my body has really caught up. When you run a six-mile like that, you burn up a lot of your reserves, and I don't think my "reserve power," or whatever you might call it, has come back to the 100% mark.

RW: *Shortly before this race, you said you were seriously considering going into 10,000 meters for the Olympic Games. How do you feel now?*

Prefontaine: I realize I'm not quite physically mature enough yet to handle 10,000 meters. I think I can run a 10,000 with anyone—or a 5000, or a mile. But to get yourself ready for the Olympic Games 10,000, then come back and run a 5000 heat and final. . . Well, I don't think I'm far enough along in my program yet, or in my age and physical maturity to handle something like that.

But I think it was a good thing for me to do this six-mile because of the mental pressure. It was kind of an Olympic preparation to let me know I could handle the longer work. When it gets down to the last part of the race, if I'm fortunate enough to make it to the Olympics, I think it's going to feel a lot easier for me when I think to myself, "Only two laps to go, and the pace is getting hot, but it's only half as far as I had to go earlier in the spring." Maybe this will help me psychologically.

RW: *You say if you're "fortunate" enough to go to the Olympics. It obviously takes more than fortune. What does it take, in your opinion?*

Prefontaine: For me, I think it's going to take a lot of mental preparation as well as physical preparation. To make something of that caliber, you have to be the best—and then again you don't. What I'm trying to say is: on that particular day, when the Olympic Trials are here in Eugene, I'll have two advantages. One, I'm supposedly the number one 5000-meter man in the United States; I hold the American record. And two, Eugene, Ore.

But then again, if I'm not ready to compete on that day, there's going to be 12 other guys who are going to be very emotionally and very physically ready to compete. They'll be giving 120%, and you're going to see things happening there that you won't see any other time. You're going to see people breaking records, setting lifetime bests, people making the Olympic team who were outsiders before the Trials began. And a lot of these people are coming to the age now where this will be their last chance. George Young is one. He's 35. He realizes this, so he'll probably be giving 140%.

If I'm mentally ready, and if I have the people who follow me here in Eugene behind me, I don't think anything's going to stop me then. But there are a lot of good people in the United States—like Steve Stageberg, Frank Shorter, Jack Bachelier, Gerry Lindgren, Garry Bjorklund and a hundred

others that could come out of the blue. You've got to be mentally prepared to run against all of these guys, and you can't ever overlook anybody.

RW: *You've mentioned that you aren't physically mature enough for the 10,000. At age 21, you're also one of the youngest contenders in the 5000. Do you think you're mature and experienced enough to win at that distance?*

Prefontaine: I don't think I'm immature mentally. Mentally, I'm as mature as anyone—except for my lack of experience, although I'm as experienced as anyone is at 21 years of age. Right now, all I'm lacking are the mental experiences of racing in some of the big meets.

RW: *Looking ahead a few months, do you think you'll be getting enough competition to prepare you for the Olympics?*

Prefontaine: You can look at it two ways. Two years ago, I lost two races in Europe. A lot has happened in the last two years. I've become a lot stronger, and a lot more sophisticated in running, in my thoughts and everything else. Yes, I'm lacking experience against these guys. But I know what their potentials are. I know what their characteristics are, and what they've done in the past. My own potential is unlimited. I don't think I've ever approached my limit, and in the last year and a half haven't been pushed to my maximum.

I've been preparing myself for tactics in my workouts. I have several plans in mind of what I'll do in the Olympic Trials, and in the Games if I make it that far. If one doesn't work, I have another one. If that one doesn't work, I have another. These are things you can't really talk about, but at the right time, you can use them. It's like a library in your mind, built up from experience. You can't recall a tactic or put it into words, but when the right time comes you can dig down and find it.

I'm lucky enough to be under the guidance of two of the best distance running coaches in the world—Bill Bowerman and Bill Dellinger. They've helped me with tactics. Bowerman has given me some tactics that are going to shock some people this year, if I ever get a chance to use them.

RW: *How much influence has Bowerman had over you in your training and the way you have developed as a runner?*

Prefontaine: To me, Bowerman is the overseer. He is a genius in track and field as far as I'm concerned—not just in distance running, but in every event. He's just a very beautiful person. But Dellinger has really been the man behind the scenes with me. It has been his workouts. I think that Dellinger is a better long distance coach than Bowerman, probably for the simple fact that he has gone through the experience.

I'm actually following Dellinger's workouts. I'm under his guidance, but I think I get my moral support from both of them. When these two guys set me down and say, "Champ, you're going to go out and cook off a good one. You can do it," that's all the reassurance I need.

RW: *You've progressed steadily from high school to the present without serious injuries. Is your approach to training the reason for this?*

NEXT PAGE: Prefontaine had his best indoor season yet in 1972—running 8:26.6 twice for two miles. (Don Chadez photo)



RW Interview

Prefontaine: I have a philosophy on that. I don't over-train, for one thing. When I train, I train hard. There's probably nobody in the world that trains harder than I do when I go out on the track and run through some time-trials and hard workouts. I really push myself. But I don't believe in a lot of volume. My biggest week-ever is 110 miles, and then the next week I dropped down to 90.

If I'm sick or don't feel good, I lay off. I'll go out and run a little. Even if I have a cold, I'll go out and run a little because I don't believe in staying in bed; the whole body has to circulate to get well. I'll go out and make myself run a couple of miles just to get my circulation going, bundling up warm. If I feel bad, though, I ease off.

My philosophy is train, don't strain. I think a lot of people overdo, or run too many miles. Your body can only take so much pounding. You just can't do 150-160 miles a week.

Another thing is, maybe I'm physically stronger than most people, or mentally stronger, or what have you. Probably the most important thing would be my physical make-up. I had an x-ray a couple of months ago because I had a little foot problem. The doctor told me I'd probably never have any serious foot trouble because of my bone structure. I'm a very big-boned person. The bones of my feet, the metatarsals and things, are very large compared to the average person.

RW: What does your training plan for the Olympic Trials involve?

Prefontaine: I'm probably thinking about it more than ever, and I think I'm working harder than ever. Last year during the winter, I averaged about 85 miles a week. This year, I've averaged about 100 miles, so I'm up a little. I have to go through a longer season than most people, but then again I think I hold my fitness better than most people.

I don't want to reach a peak for the Olympic Trials—almost, but not quite. Then after that I'm going to take a week off, and follow that with three weeks of the hardest training I've ever had.

RW: After you graduate next year, do you still think you'll be guided by Bowerman and Dellinger?

Prefontaine: I think I could coach myself now, more or less. I'm still learning things from them, but I think I could coach myself. I could write my own workouts, but knowing me I probably would give myself too hard workouts. My philosophy is train, don't strain. But still I have a tendency sometimes, if they say, "Go out and run 2 x 880 in 2:05," to go out and run them in 2:04, or to run a mile in 4:06 instead of 4:10. I think I'll probably follow their advice. Why not? It's there.

RW: Would you like at some time in the future to coach?

Prefontaine: As far as being a coach, it's always fascinated me. It's a great responsibility. It's a bigger responsibility than most people give it credit for because you're dealing with people.

I think there is a lot of talent in the United States that has been wasted for the simple fact that some coaches overdo it, and they mentally and physically destroy a person before he ever begins to blossom. They see some prospect and say, "Gee, we're going to make him a superstar before he's out of high school." And they work him to death. He's mentally and physically exhausted before he graduates.

I feel that when I'm through running, if I have some-

BELOW: Prefontaine and one of his main rivals for the Munich 5000 title, Emiel Puttemans (right), line up with Kerry O'Brien for an indoor two-mile which Pre won handily. (Stan Pantovic photo)



RW Interview

thing to contribute to track and field, I'd like to contribute it. I am in the process of writing a book on the runner. It's not going to be a biography, because I don't think I have anything yet to offer in a biography. It will be more or less on the lines of philosophy, training, why run, that type of approach—why people do it.

RW: *You seem to have a good feeling about crowds, particularly in Oregon. How do you view them?*

Prefontaine: The people here in Eugene are a little more sophisticated than most. If you run a 4:05 mile, they appreciate that. Of course they're looking for the sub-four-minute mile. They're looking for the good performance all the time, but yet they're not going to boo you. They realize a guy can't go out and whip off a sub-four-minute mile every time.

I think I have rapport with the people here in Eugene because being out there by myself on the track I'm an actor in my own way. I'm a performer. If I make a good performance and the people appreciate it, I appreciate their support. It's a two-way thing. Maybe another reason is because I'm very emotional. I'm a very emotional person. I get hurt very easily and I'm very sensitive, and when someone appreciates something I do, it really turns me on. Maybe that's why the people in Eugene are so great, because when I do something halfway decent they appreciate it. It really gets to me. It really makes me feel good.

RW: *Brutus Hamilton has divided runners into "Scientist" and "Artist" categories. If you accept this analogy, how would you classify yourself?*

Prefontaine: I'd classify myself as a little of both. I think I'm an artist in my own way, and I'm also a scientist. My workouts are very important to me, and everything I do has a purpose. Every race I run this year has a purpose. It's kind of on a scale. I do this mentally, and I do that physically, and I prepare myself. When I go out to compete, there's science involved in it—using my head and calculating what to do next. If the competition's keen, I'm wondering, "What am I going to do to this character now to psychologically or physically destroy him?"

But yet it's an art form. I'm an artist because I'm giving something to the people that they can respond to or relate to. When I make a good performance, I think I'm an artist. If someone likes a painting on the wall, they smile. If someone likes what I did, they're going to smile, or clap, or respond.

RW: *But what about the "hero-worshippers" who come from those crowds? How do you respond to them?*

Prefontaine: It's a real turn-off feeling to have people approach me as if I'm unmanlike—approaching me as if I'm unreal. I like to be approached like I'm a human being. I like to talk with people and have them accept me as Steve Prefontaine, the human being that lives in Eugene, Ore., as compared to Steve Prefontaine, the athlete, the person who runs.

I'm always on the offensive. I'm always trying to find friends and let them know that I'm not an egotistical slob. I feel I have to work at it harder than the average person probably has to. I have a hard time walking up to people and saying, "Hi," without them saying, "Wow, you're so-and-so."

It's different with kids, though. They look up to

you, but they don't look at you as something unreal. They say, "Boy, I'd like to be like him." I really love kids, and I like to be around them. They're more honest. With grown-ups, you're unreal. With the kids, you're an ideal—the kind of guy they'd like to grow up to be.

There are lots of people who could do what I've done, but aren't willing to sacrifice and put the work in that I have. It has been eight years of my life, something that has happened every day. How many people would be willing to sacrifice and devote so much time to something this small?

RW: *How do you view your future in running, say after you graduate from college next year?*

Prefontaine: As you mature, you can handle more work, and your recovery rate is better. It's a scientific fact that man doesn't reach his physical maturity until he is 27, or 28, or even 35. No matter how hard you work at it, you're not going to reach that until your body says, "Okay, it's time to be physically mature." I'm six, seven, 10 years from that. By the next Olympics, I think I'll be able to handle the 10,000. But I also might be a 1500-meter man by then, or a marathoner. Or I might not even be running. It all depends if I can keep my interest, and keep progressing, and stay away from injuries—things like that.

As soon as I get to where I'm not enjoying myself any more, maybe I won't reach my peak. Maybe I'll retire before. If I come to the point where people are hounding me like they do other athletes, and if I go to a race and people boo me because I don't run a world record, then I'm going to retire because it's not going to be worth it to me. When I can't go and satisfy other people and satisfy my own ego, when it becomes a drag, then I'm going to quit.

RW: *Do you have any interest in running the marathon?*

Prefontaine: I've never tried one. But the older I get, the more work I can handle, and in the future I think I'll run one. But I don't think I could ever seriously be a competitor at this distance. Maybe I will 10 years from now, but right now my interest is in these other distances. Right now I have other things to do, and to be a marathoner I think I'd have to train a lot more than I do now.

I just like to go out and get my morning run over with, go home and shower, and forget about running until the afternoon, and then start thinking about it again. To me, running is a twice-a-day thing, and the rest of the day I try to get my mind off it as much as possible by thinking about school, going out hiking, looking at the trees, or whatever.

RW: *What place do you think running will have for you when you're older, and you've finished your competitive days?*

Prefontaine: I think that when I retire from track and field, I'll always be a track fan. I'll be one of the people sitting in Hayward Field watching and rooting, or I may be a judge down on the field. I don't think I can ever get away from it because it has become so much a part of my life.

And I'll always be a jogger. Maybe I'll be the guy entering the 40-year-old senior races, if I live that long. But I think the older I get, the less serious I am about it. Oh, I'm still serious about it, but it doesn't take as long to get myself ready for a race any more. I know in high school it would take me two or three days to get myself mentally ready to run. Now two or three hours does it, unless it's a really big thing like the Olympic Games, which I've been thinking about every day for four years.

DOWN WITH BOSTON'S BARRIERS

The results are in. The 76th chapter of The Boston Marathon Story is written, and it has more than its usual quota of weird twists: A Finn and a Colombian running one-two, despite the fact that it's the first marathon for each. Close to the biggest field ever, despite the 3½-hour time limit. The fastest field ever, despite warm weather and sunshine. And the women—at last equal, though still technically separate.

Surprising as the turn of events was to us who follow marathoning, the Finns and Colombians must have known what they were doing when they sent these men.

The Boston marathon, strange as this sounds, is one of the biggest events in Finland. A Finn or two has been in the BM most years since World War I, and many have won. That country now has a flock of men in the 2:15-2:20 range. Yet they chose to send 25-year-old novice named Olavi Suomalainen.

As is their tradition, the Finns—Suomalainen and Markku Salminen—came to town several weeks early to train over the course. But unlike past years, they skipped pre-marathon tuneup races. This made Suomalainen more of a surprise come Patriot's Day.

Meanwhile, the Colombian government decided to send a four-man team. It didn't include defending champion Alvaro Mejia. He was to go along as the "coach." Mejia and team are living and training in the San Francisco area, and have been since early March. Alvaro, who himself slipped into town unnoticed last year, said Victor Mora stood a good chance of winning the race. He had won an international half-marathon (over Mamo Wolde and Ron Hill among others) earlier this year.

"Mora had never finished a marathon before," Mejia's wife Terri, housemother for the Colombians, said the morning of the race. "He'd started one, in the Colombian Olympic Trials (1968) at 9000 feet. He dropped out at about 15 miles."

But Victor had upped his training recently, switching from shorter to longer work. Mrs. Mejia said, "The week before last, they all went 152 miles, with a 25-mile run on Sunday (15 days before the marathon). With this training and a fast 30-kilometer race behind him, Mora was ready.

Mejia didn't think he himself was. That's why he was coaching. "He said he wasn't in shape," Terri said, "and he wouldn't let me send in his entry blank. It was filled out, but he wouldn't sign it. He only went to Boston because he was the only one who could speak English."

Mejia never said anything about it to his wife, but the week before the race his training started coming together. He never mentioned racing before leaving for Boston, but Terri noticed "he was getting his racing shoes ready."

She wasn't surprised when he called Sunday night to say he wanted to run. "He was on the phone all day hoping to find someone to accept his entry. But he couldn't get ahold of anyone. The last I heard, he didn't know if he was in or not. He wouldn't know until Monday morning."

Sunday had been cool and rainy. Monday morning's papers predicted more of the same for race day. Predictably, a wire service story said the possibility of rain would "cut down chances" of a fast race.

Larry Berman, a Boston-area resident and marathoner, called it a "sneaky New England day." He said, "At about 10 o'clock, the sky cleared, and the temperature started going up, up, up." It was in the 60s by noon, with bright sunshine—just like last year, but minus the headwind.

Mejia got in. How could anyone turn down the defending champion, even if he had missed the deadline by three weeks? Unlike last year, when he came and ran anonymously, he was now the biggest name here. The best Americans, Norm Higgins and John Vitale, both looked like they had a good chance at winning. Higgins had run 2:15 last year, and had been pointing for this race. Vitale was the leading American here in 1971.

BOSTON'S LEADERS AT A GLANCE

1. Olavi Suomalainen (Finland)	2:15:39
2. Victor Mora (Colombia)	2:15:57
3. Jacinto Savinal (Mexico)	2:16:10
4. Alfredo Penaloza (Mexico)	2:18:46
5. Pablo Garrido (Mexico)	2:19:50
6. Bruce Mortenson (Minnesota)	2:19:59
7. Jeff Galloway (Florida)	2:20:03
8. Alvaro Mejia (Colombia)	2:20:06
9. Steve Dean (California)	2:20:29
10. Markku Salminen (Finland)	2:20:42

Women

1. Nina Kuscsik (New York)	3:10:26
2. Elaine Pedersen (California)	3:20:35
3. Kathy Miller (New York)	3:29:51

Olympic Trials Qualifiers (*=already in)

Mortenson 2:19:59; Galloway 2:20:03*; Dean 2:20:29*; Carl Hatfield (West Virginia) 2:22:07*; Tom Hoffman (Wisconsin) 2:22:19; John Vitale (Connecticut) 2:22:19*; Bob Thurston (District of Columbia) 2:23:03; Justin Gubbins (District of Columbia) 2:23:28; Rick Bayko (Massachusetts) 2:23:32; Gareth Hayes (North Carolina) 2:23:51*; Lee Fidler (South Carolina) 2:24:49; Jack Leydig (California) 2:25:15; Tom Fleming (New Jersey) 2:25:26*; Joe McDevitt (California) 2:25:28; Max White (New Jersey) 2:25:31; Tom Derderian (Massachusetts) 2:26:06; Bruce Han-nug (Michigan) 2:26:09; Norm Higgins (Connecticut) 2:26:14*; Peter Stipe (Massachusetts) 2:26:53; Ron Wayne (Massachusetts) 2:27:02; Don Kennedy (Georgia) 2:27:23*; Paul Thompson (Massachusetts) 2:28:25; Don Brown (New York) 2:28:29; Chuck Koeppen (Indiana) 2:28:34; Sam Torres (Michigan) 2:28:39; James Green (Massachusetts) 2:29:58.

Suomalainen and Mora were part of the crowd—untested newcomers at this distance, regardless of their credentials from other races. Behind them was a restless throng that numbered 1081. (Larry Berman timed the start. From the time the gun fired until the last man crossed the starting line, 38 seconds passed.)

Vitale was going for broke. He wanted badly to become the first American winner since Amby Burfoot, like John from Connecticut, had done in another Olympic year, 1968. Vitale was 49:24 at 10 miles. He led by 100 yards. Higgins was a minute behind the leader, apparently laboring.

Vitale paid for his boldness, and surrendered the lead. He let Mexican Jacinto Savinal take over and lead through 21 miles. Coming out of the hills, Suomalainen came up and made his kill on the tiring Mexican. "I knew I could catch him," he said later through an interpreter. "But I worried that someone else might catch me."

Mora was cause for concern. He was moving well himself. But at the Prudential Center, stringy-haired Suomalainen was still 100 yards ahead, 2:15:39 to 2:15:57. Savinal, who had rough going through the hills, didn't cave in. He ran his best time of 2:16:10—beating better-known countrymen Alfredo Penaloza and Pablo Garrido who were fourth and fifth.

Vitale dropped to 14th, Higgins to 28th. The race for first American went to Bruce Mortenson of Minnesota, who broke 2:20 by a single second. Jeff Galloway was three seconds over. Mejia followed Jeff by three more seconds, and was happy to finish as high as eighth, considering his lack of preparation.

Behind Steve Dean (2:20:29) came the second Finn, Salminen. And behind him was the third Colombian, Domingo Tibaduiza. Eight of the first 11 were non-Americans, and six of those were Latin Americans. Experienced or not, the foreigners sent the right men.

That was the race for first. There were many other little races within the big race. One was for 2:30—the Olympic Trials standard. Thirty-nine runners got under that (26 of them Americans). Never had this many gone this fast.

The field, it appears, is outrunning Boston's qualifying standard—the 3½-hour limit. The biggest field had been a about 1150 in the last wide-open year. Now, even with the tightened restriction, the race almost was as big as ever. There were 1211 men—and nine women—entered; 1081 started.

There has been talk of lowering the standard to three hours. We're not ready for it yet, it doesn't appear. Although 277 runners won the race with three hours, that's

still only about one-fourth of the field. That puts a lot of runners in the next half-hour, if indeed the other 75% were sub-3:30 men to begin with.

The women! From the publicity given the race outside of Boston, you might think that the women were the only ones running. They got most of the attention.

In fact, nine of them entered the first integrated Boston. The women had true equality. They had to meet the same qualifying standards as the men. This fact severely cut the list of prospective runners. Eight of the nine started. (Beth Bonner waived her chance because of injury.) All eight finished, which is a far better percentage than the men could claim.

Nina Kuscsik, the only woman to have run under three hours twice, went after that again. She started too fast. Her final time was 3:10:26.3. Elaine Pedersen, winner of the only other officially recognized AAU marathon (Trail's End) was second with 3:20:35. Kathy Miller ran 3:29:51. Both Elaine and Kathy had been tossed out of earlier Bostons—either figuratively or physically.

Unfortunately, the main crusader for equality in this race, Sara Berman, had her problems. She got the flu before the race. "She didn't want to run," her husband said. "But with all the fuss about the race, she thought she should help fill out the ranks." Sara ran 3:48:30.

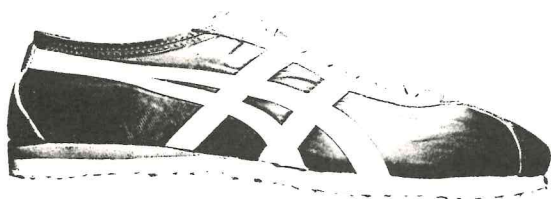
The AAU's only demand was that the women be scored separately. They started on the same line as the men (one woman got on the front row, and the rest lined up behind her) and ran down the same road at the same time. They mixed freely with the men.

Sara Berman had said when the integration was announced, "The best men will always be better than the best women, but just the same, the best women can beat some of the men." The best women beat hundreds of men.

Among those who trailed in later—and yet couldn't be called losers at all—were Harry Cordellos, a blind man from San Francisco who ran 3:26, and comedian-political activist Dick Gregory, who finished though his protest fast has brought him down to about 100 pounds.

All of this goes to show that whenever anyone at Boston erects a barrier—be it inexperience, weather, standards, sex, sight, or starvation—there are marathoners who'll take up the challenge and vault it.

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RACING REPORT

P.O. Box 366

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RUNNING AND SWIMMING

BY JIM DUNNE

I had the opportunity recently to interview some of the nation's leading swimming coaches. But because running interests me more than swimming, I couldn't resist asking them to talk about our sport and how it relates to theirs.

Specifically, I talked with James (Doc) Councilman, coach at the University of Indiana, an innovator, writer and scholar on the subject of swimming and physiology in general; George Haines, coach of the endlessly successful Santa Clara Swim Club and former head coach of the American men's swimming team, and Dr. Bob Thomas, a former swimmer at UCLA, a pediatrician and coach of the Apple Valley (Calif.) swim team.

I asked each coach three questions:

1. Who trains harder, swimmers or runners?

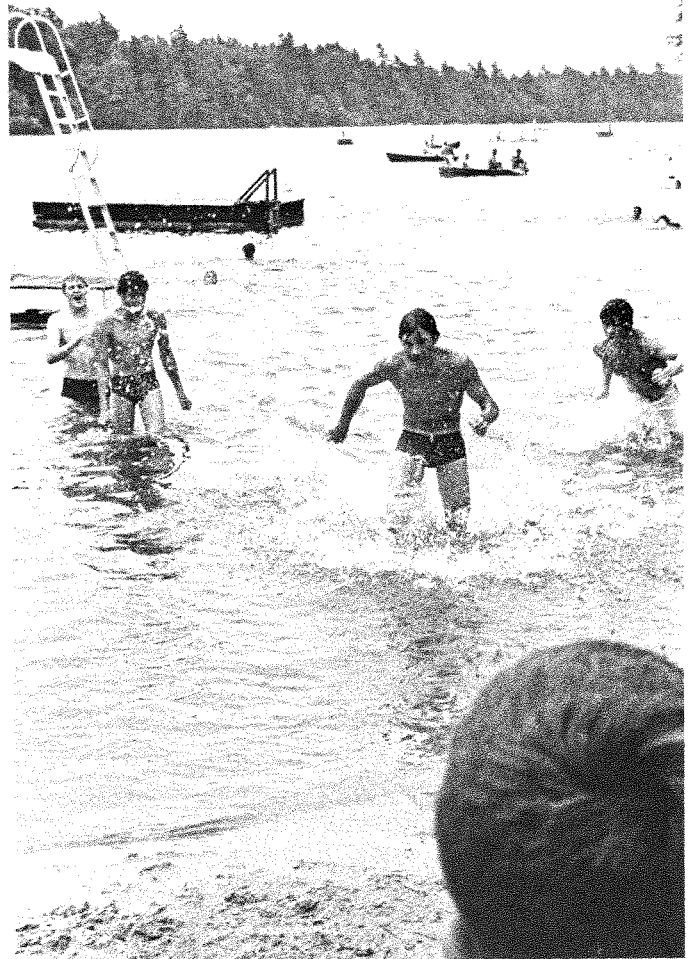
Thomas: It's hard to say. The swimmer probably spends more time at his sport than the runner merely because the current concept of training involves about 10,000 meters of swimming a day. . . even for an age-group swimmer. That works out to about 6-7 miles of swimming a day. Comparing that to track works out to about 28 miles of running a day. A few track stars run that distance I understand, but very few. A sprinter in track would never put in that kind of distance, but a sprinter in swimming does. I think sprinters in track do work the same kind of interval training that swimmers do. I don't think distance runners who go out and run long distances as part of their training do workouts of the same high intensity as swimmers.

Haines: Those of us in swimming feel swimmers work harder. The reason I feel that way is that our kids do so much of their work with a real "close" rest. The kids are swimming 10,000 to 15,000 meters a day—most of it with very little rest between their repeats. But how do you compare? I've talked with Bob Timmons (University of Kansas track coach and one-time high school swimming coach of the year) and others about this, and they think that runners have a long way to go as far as training as hard as swimmers. Timmons may not feel that way now. But I know he did when he first went into track. The track men he knew didn't work as hard as the swimmers he had.

Councilman: Swimmers work much harder, relative to the amount of effort and the hours they put in. For instance, you can run a mile in 4:00 but it will take you about 16 minutes to swim a mile—about a four-to-one ratio. Now our kids swim, in the summer, about 15,000 meters a day. There are very few runners who are running 60,000 meters a day. I think the reason you can put in more time is because it is a non-weight bearing exercise, and also we can get rid of the heat through the thermal conductivity of water. Runners run into a lot of leg trouble. We don't run into that kind of thing. Arm trouble a little bit, but not too much.

I also think that interval training, sprint training, can be used to a greater extent in swimming than in track. Another thing, coaches are a little more experimentally minded in swimming than in track. Track coaches have very strong opinions about everything, and they are not willing to experiment as much as swimming coaches. I think track is a little hung up on techniques.

Runners-turned-swimmers wade ashore at the end of their half-mile water leg in a Massachusetts "biathlon." It started with a three-mile run. (Rick Levy photo)



2. Can age-group running programs be as successful as age-group swimming programs?

Thomas: This really has yet to be determined. There are some programs, but it is too early to determine whether they are really a success. There is some question whether the muscle bulk that swimmers develop at a young age might tend to shorten boney growth. It hasn't been documented yet and we do have some awfully tall age-group swimmers—but this has been a consideration.

In terms of track, they're just starting the program and we don't know if there will be joint trauma. My question is whether the constant distance training that swimmers go through might damage cartilage in a person training for track. He's putting stress on knee cartilage and his hip joints. A swimmer is not putting that kind of stress on these parts.

We don't know what 10-12 years of hard training will do

to young people out for track. There's absolutely no factual basis for any kind of an opinion right now. We know there are a lot of older men who started training in their mid-teens and they don't seem to have any trauma.

Haines: They do have age-group running, but it isn't on the same level as the age-group swimming. But then they just started a little while ago. It seems to be coming along pretty well. If a 12-year-old boy were brought along properly and not pushed too hard, I think he could take a lot of running. I think I'd be careful of his training program though. I think heavy volume of work is one of the things lacking in the age-group running program right now. I think the kids could take the workload. But I don't know what happens to the knees and the other joints from running. I'm sure that the kids could handle the work. . . if they didn't have other problems.

Counselman: I think the only way you can find out is to experiment. You can't say you're a good coach if you've never overtrained a kid. You don't want to hurt a youngster. But until I've overfatigued a kid and got him so tired he can't swim efficiently, I don't know what it is like. I think we approach things too cautiously. I think we should try it in track. If it hurts a kid's joints, then back off. I think we'll never know until we experiment.

3. Could runners do some of their cardio-vascular/pulmonary training in swimming?

Thomas: Sure. I think it will work if a runner goes at it from that standpoint. Any sport which involves work on the cardio-vascular system will help. Swimming probably won't help with the muscular system, though.

Haines: My philosophy is that if you're a swimmer, you don't run. The track coaches probably have the same philosophy. Why go to a swimming pool when there is a track available? I don't know for sure if they run repeat 100s or 220s with the

"close" interval of rest we do in swimming. A lot of our kids are repeating 100s with 2½-5 seconds rest. . . and 220s with 10-15 seconds rest. I don't know if you're doing that in track. I think they could get the same kind of results if they did that in track. Certainly they could develop their cardio-vascular systems by doing interval work in the pool. The big problem with runners, football players and basketball players is that because they do a lot of running they're very tight—not very supple. Also, they don't swim very well. I don't think the two would mix.

Counselman: No. I don't think so. If you do that you're defying the principle of specificity of training. In other words, you should stay as close to an activity as possible. I don't let swimmers run. Twenty years ago, I let my swimmers run cross-country, but I don't now. I keep them on weights—imitating the specific movements they're going to use in the water—or have them train in the water.

Counselman had some final comments which really were not specifically responsive to the questions, but which were interesting:

"I've talked with runners and I'm amazed how little they run, how inflexible their training programs are. I've noticed a lot of them have dropped interval training. Some of them stick with a straight set of repeats. Some of them do only one set of repeats. We do all sorts of repeats. In one workout we use interval training, sprint training, repetition training, over-distance training and a form of fartlek. I just don't see this being done in track. I used to coach track and had a lot of success on a small scale. I used essentially the same workouts I use in swimming with a lot of variety within the same workout. I don't see track coaches experimenting with this kind of variety."

GO JUMP IN A LAKE

BY BILL INGRAHAM

Once each summer, New England's runners get a break in their heavy schedule of road pounding. They have an event called the "biathlon." It combines running and swimming—three miles of the former, followed by a half-mile of the latter. The race is run-swum at Lake Boone in Stow, Mass. Bill Ingraham started the unique event, and describes it here. (The 1972 race is scheduled for July. Write Ingraham at 330 Lincoln St., Waltham, Mass. 02154.)

I would like to claim that the biathlon as my own invention. But the truth is, I read of a similar event five years ago. The only detail I remember is that the competitors were required to swim a river. The idea intrigued me. So at a club meeting four years ago, I suggested we stage a run-swim race. Since I had opened my big mouth, I was unanimously elected race director.

You have to understand that I had no experience as a race director—never mind as a run-swim race director. Lots

of people came to me with comforting remarks about the lake bottom being littered with AAU road racers. Others told me very seriously that on entering the water an overheated runner's insides would turn to raspberry jam.

I was a nervous wreck. I could see the headlines: "New England AAU Missing 100 Athletes." I imagined lawsuits. Being tarred and feathered by angry surviving kin. Tearfully telling Walter Cronkite, "I didn't know they couldn't swim!"

I decided the only way to put my mind to rest was to have, pardon the expression, a dry run. So I got a few of the boys together the day before the race, and we went through the whole schmeer. We started at the beach, ran up the road 1½ miles, turned around and returned to the beach. There we shed shoes and shirts and hopped into the lake. What a relief—no raspberry jam!

We know now what happens to hot runners when they hit cold water. They cool off. The water at Lake Boone is

relatively warm in July, and in our three races to date 182 competitors have had no cramps or difficulty during the swimming portion of the race. We have had a few drop out, but they were merely tired and asked for a boat ride back to the shore.

Some runners have complained about "gas on the water." The gas comes from the half-dozen motor boats we have out on the lake to make sure we don't have a disastrous mid-race dropout, if you get what I mean. Even though you are only 20 feet from land, the fact remains that it's straight down.

Some runners have complained that the swim phase is unfairly long. We feel, theoretically, that a 4-1 ratio is ideal. A national class runner will go four times as fast as a swimmer of equal caliber. The time spent in the water would equal the the time spent on foot.

However, swimming has a larger skill component than running, and we feel that it is harder for a runner to achieve a given level of swimming ability in a short time than for a swimmer to achieve the same quality of running. So we bent the ratio a little in favor of the runners, settling at 6-1—a three-mile run and a half-mile swim.

It has been demonstrated time and again that the person who does well in this race is both a good runner and swimmer. For example, the fastest swimmer last year finished sixth overall. Competitors who have placed well have had fairly evenly balanced run and swim splits. Ken Mueller, who has won all three races so far, has led going into the water for the last two years. But he wins it because he has one of the better swim splits, too. (It should be

noted that Ken is a 2:27 marathoner who works summers as a lifeguard.)

In contrast, in 1969 Amby Burfoot got to the beach 200 yards ahead of the second-place man. But since Amby swims like a wounded mallard, he finished 12th.

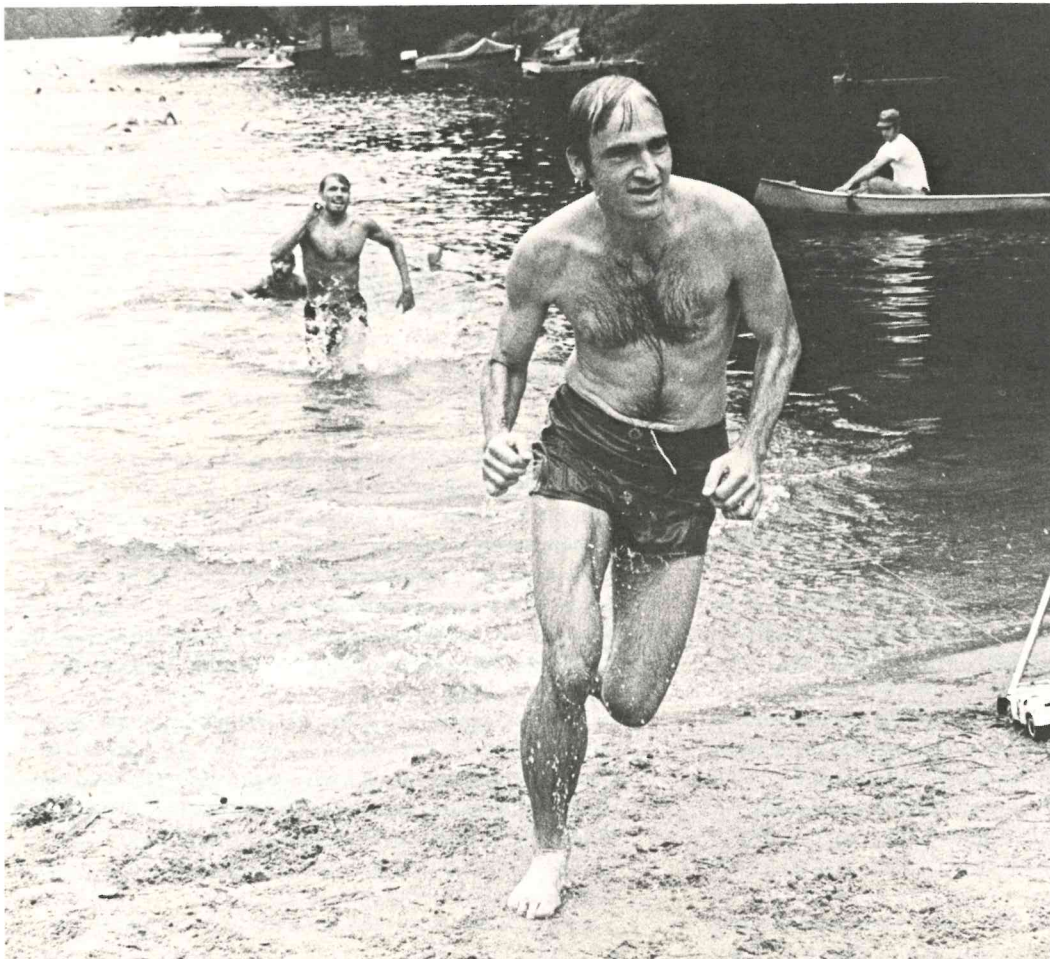
Like orienteering, Nordic combined skiing and Nordic biathlon, our biathlon requires two distinct skills. Eventually, the successful competitor will be a specialist—one who trains for both disciplines. But at this stage, the race is still a novelty. It is a pleasant diversion for both runners and swimmers. No one's ego is on the line, since it is easy to rationalize away a poor performance in the weaker event.

Since we started this as an annual affair, I have read of several similar races. One in Connecticut was run in January and featured an indoor pool. Another was run in North Carolina. I'm sure there are others now, and a lot more will get started once people get the word.

Sports Illustrated has shown some interest in our race, and there's a chance we can get some ink in the magazine before long. ABC's "Wide World of Sports" turned us down flatly (not once but twice). But they are more the demolition derby type, anyway.

What I would really like would be a full-length promotional movie with Bruce Dern playing Ken Mueller. I could see it now—a torrid sports love affair with Bruce and Liz Taylor (playing Cheryl Bridges) starring. Two pairs of Tigers under the same bed (X-rating) and Avery Brundage having a seizure.

The movie is only speculation at this point. But the race will be run the first week in July. There's plenty of water on the course, and the last half-mile is flat.



"There's plenty of water on the course . . . the last half-mile is flat. (Levy)

It was a productive winter for Leonard Hilton, if for no other reason than he let people know once and for all who Leonard Hilton is.

The 1971 *Marathon Handbook* called him an Australian. He looks Australian, the name sounds Australian, and Australians have bene coming to the University of Houston since the 1950s. We just assumed...

Others assumed the same thing. He was called not only an Australian, but at other times a New Zealander, an Englishman and a Canadian. Almost everything except what he is—a native-born Texan. Texans are stereotyped as sprinters and weightmen, not distance runners. So it was assumed...

Last summer at the AAU championships, Hilton ran three miles in 13:04.4. He improved by nearly 20 seconds to run one of the best times in history. But he did it in the fastest US race of its kind. Leonard placed fifth, and didn't get much attention for it. He couldn't expect to, running in Eugene be-

or near the front the last several months. The buildup appears well-timed.

Last fall, Hilton was putting in relatively high mileage. He gives an example of a "typical" week. It totaled 138 miles. But even then he and Lawrence were paying attention to quality. Leonard was doing some well-paced work every day—always 10 100-150-yard "strides" during his morning run; and often something on the order of 6 x one-mile at 5:10 each, or 20 x 440 in 75 seconds in the afternoon.

Mileage stayed about the same as he moved toward indoor track. "The cross-country and early track workouts were high in mileage because I needed more strength," he says.

But he prefers fast training, and even in December he was relishing his speedwork. The intervals were at 60-second quarter pace (distance varying). On Christmas day, he ran three hard 500s. None of his quarter splits en route was slower than 55 seconds.

HILTON MAKES AN IMPRESSION

(PHOTO BY JOHN GOEGEL)

hind hometown runners Steve Prefontaine and Steve Stageberg (and internationalists Frank Shorter and Gerry Lindgren).

No one thought much about Leonard Hilton, or bothered to correct the misinformation, until this winter. Indoors, he blossomed. He beat Frank Shorter. Ran a 3:58.9 mile. Led Americans in the AAU three-mile (finishing a close second to Emiel Puttemans, the two-mile record holder). And won the Soviet dual.

Reporters took note. One of the first things Hilton told them was, "I'm from Hillsborough, Texas." His gentle drawl said that for him. "I've been the fastest Texan for a long time, but I guess you can't say much for that." As an afterthought, he added, "People should know me by now. I've been around."

Leonard Lane Hilton is 24 years old. After graduating from the University of Houston a year or so ago, he stayed on in the city to work as a lab technician at the Hughes Tool Company.

Another reason for staying in Houston was to continue training with Al Lawrence. Perhaps his closeness to Lawrence was one of the reasons the Australian label got stuck on Hilton. Lawrence really is an Australian, one of the first to come to Houston to school. Al was bronze medalist in the 1956 Olympic 10,000. He once held world indoor records at two and three miles.

"I started training under Lawrence in 1968," Hilton says, "and he has helped me, with his experience and knowledge, to achieve my times. He regulates my training closely, and it consists of things he himself did, or things done by people that he knew personally—such as John Landy and Gordon Pirie."

What Lawrence has done is offer Leonard a training diet involving both high quantity and high quality. Hilton has thrived on it, improving steadily until he has found himself at

"I like to use speed in my workouts," Hilton says. "Sometimes I would rather train like an 880 runner instead of a distance runner. Most of my speedwork is done with the help of 46.5 quartermiler Lewis Vicenik.

"Unlike most distance runners, I do not like long repetitions and usually almost have to be forced by Lawrence to do them. My favorite workouts are the three 500s, or 12 x 220 accelerations at 26 seconds, or 4 x one-mile in 4:20, with only a 90 second interval."

Hilton considers the Millrose Games in late January to be his breakthrough. It was his first big win nationally. He ran a 13:21.0 three-mile. But more importantly, he beat Frank Shorter and Garry Bjorklund—the US's two 10,000-meter men in last summer's Pan-American Games.

Leonard hadn't quite expected that. It hadn't been a good week for him. Five days before, he'd limped through an abbreviated Sunday run on infected blisters. Monday wasn't much better. Tuesday his favorite 3 x 500 workout was slower than usual. His 220s and 110s on Wednesday were brisk, but low in volume. He took it easy Thursday, traveled to New York on Friday and ran that day—worried, but well rested.

Everything came together for him that night in Madison Square Garden. And from then on, it has gotten better.

After winning the US-Soviet three-mile, Hilton was interviewed on TV. The most significant thing in the interview wasn't that he said, "I'll stick with the 5000 this year, trying to make the team in it." The big thing was that everyone seemed to know just who Leonard Hilton is.

At the rate he is going, when people talk about the Hilton in Munich this summer, they won't be referring to a hotel.



ON THE INTERNATIONAL CIRCUIT

SURVIVAL OF FITTEST

BY WILF RICHARDS

Very few of the thousand athletes competing in this year's English cross-country championship are likely to forget the experience. Even for those who have been taking part year after year for a decade or more, the 1972 race will remain deeply implanted in their memories. The reason? Weather conditions more severe than anyone, competitors and grey-haired officials alike, could remember.

British runners are not easily daunted by unfavorable weather; they are too accustomed to the vagaries of their climate for that. But this time they were treated to something quite out of the ordinary, and many were in a state of collapse by the time the race was over. The officials, too, were in some cases just about at the limit of their ability to cope.

The worst of the weather came in the second half of the nine-mile race. A piercingly cold wind turned the rain into sleet and then to hail, and soon an arctic-type blizzard was raging. Heads down, the runners battled their way through the mud, stumbling now and then at some of the rougher patches. Those unfortunate enough to have to wear spectacles were in an even worse plight. They just groped their way along and hoped for the best.

In such conditions, there were inevitably a good many reversals of form. Several top runners finished a hundred or more places farther back than normal, while others less known for their speed than for their strength were bet-

ter equipped to withstand the ordeal and came through much nearer the front than they could ever have hoped.

But it was no great surprise to see Malcolm Thomas emerge as the winner. The strongly-built 23-year-old Welsh champion (who was featured in *RW* in July 1971), had already proved his cross-country ability when finishing second to all-conquering Dave Bedford in last year's National. This season, he had comfortable victories in both the Welsh and Southern Counties championships. So he and Trevor Wright stood out as favorites in the English championships.

Thomas suffered like all the rest. He described the conditions as the worst he had ever encountered, for the course was considered quite a tough proposition under normal conditions. But he forced himself to make a break from the leading group at a crucial point and open up a gap which was never in danger of being closed. His winning margin of 36 seconds was more than adequate.

Much more surprising was Bill Robinson's tremendous performance in finishing second. Here was a runner in his mid-30s who had been prominent in the northeastern counties of Britain for a number of years without ever appearing likely to break into the top ranks. This season his powers appeared to be on the wane. In the Northern championship he had finished no nearer than 16th; hardly a boost for a good run in the National. Yet by plugging away in these vile conditions, he came through for second place.



Moroccan Haddou Jaddour (47) and Scotsman Ian Stewart (6) attack this hill in the International cross-country first, but wily veteran Gaston Roelants (98) waits to pounce. Roelants won his fourth title. (M. Shearman)



“THE INTERNATIONAL”

BY MICK HAMLIN

It was hard to believe that just two weeks earlier, at the English National cross-country championships, a hundred runners had to be treated for exposure and an official died as the weather changed dramatically in the course of the race. Now, at Cambridge, England, the sun hung in a clear blue sky and made a mockery of the foreigners' idea of English weather.

The International was back in Britain for the fourth time since 1960, and it was all a combination of nostalgia and *deja vu* as that “golden oldie” Gaston Roelants, all of 35, turned back a collection of young pretenders, Olympic aspirants and last season's European medalists to win his fourth title—all of them won on British soil.

If Britain is supposed to be where they run those tough, hilly, muddy courses, then this wasn't one of the courses upon which that tradition was built. It had a hill (all of six feet high), some mud (enough to make the bottom half of a worm damp), some plough (suitably flattened by wheels of a truck), and obstacles (an 18-inch fence). It also had two other ingredients uncommon over here—spectators and a TV crew. The men's race was televised live. Can the sport have made it at last?

Anyway, we were treated to some great running. Roelants, who obviously wasn't put out by having to stop and put his shoe back on (someone stepped on it early in the race), got back in the race and left the rest in the dust. He ran the 12 kilometers in 37:43 to beat Mariano Haro of Spain (38:01) and Ian Stewart of Scotland (38:20).

The English team, which was not given much chance of victory by the learned gentlemen of the press, won as usual. But second went to surprising Morocco, ahead of 10 other nations. So if a Moroccan shows up well in September, don't turn around and say, “Who? From where?”

Remember 1937? Now that was a very good year.

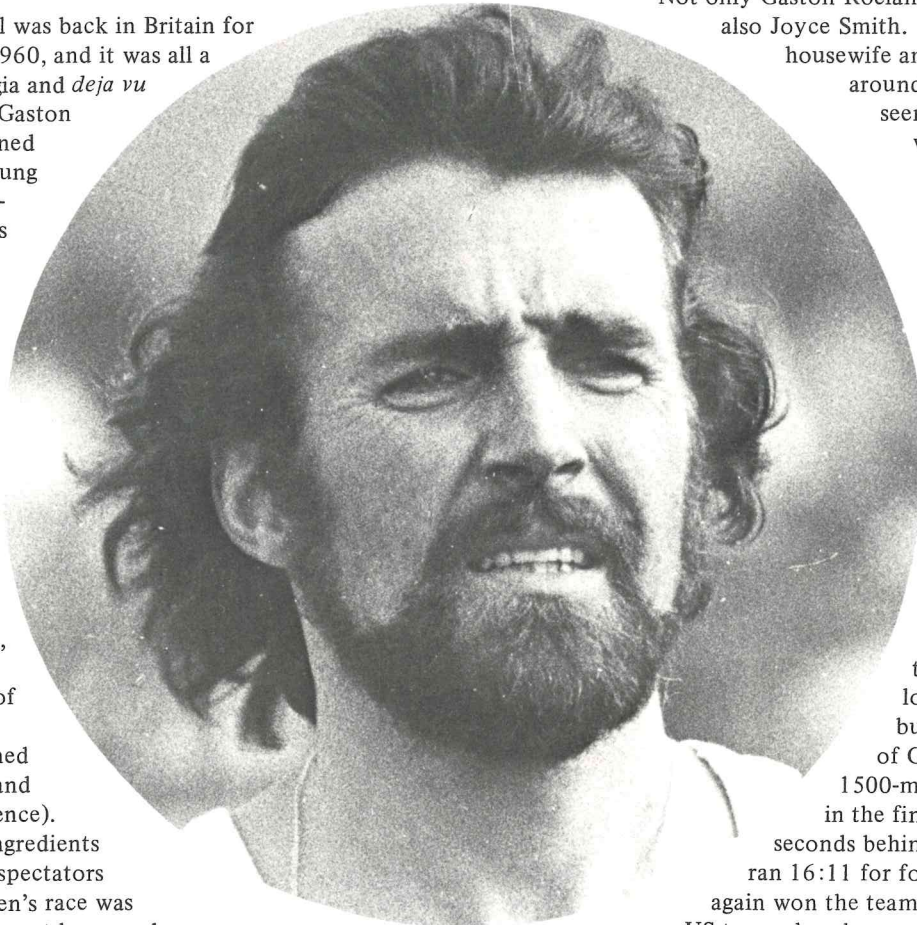
Not only Gaston Roelants was born then, but also Joyce Smith. This North London housewife and mother has been around so long now that it seems strange to imagine what women's cross-country would be without her.

In the absence of Doris Brown (see accompanying article), Mrs. Smith defeated all in the women's race. But what a fright she must have had from Eileen Claugus, a fresh-faced school kid from Sacramento, Calif., who is 19 years younger than the winner. Despite impressive credentials, Eileen was overlooked in pre-race blurbs, but she managed to dispose of Commonwealth Games

1500-meter champ Rita Ridley in the final straight and run in two seconds behind Mrs. Smith. The winner ran 16:11 for four kilometers. England again won the team event, but a very young US team placed second as seven countries finished teams.

(The US men, as usual, didn't bother to send a team to this, the most prestigious cross-country event in the world.)

The US girls, and some of the young men behind Roelants, may have better days ahead of them. But on this particular day at Cambridge, two runners who should be thinking of going down proved they are still at their hilltops.



GASTON ROELANTS
(Mark Shearman photo)



One-fourth of the way through the men's International, the order of running is: Jaddour, Stewart, Roelants, Tony Simmons, Noel Tijou, Haro. (Ed Lacey photo)

DORIS' HARD DECISION

The Cold War isn't what it used to be—either in politics or track and field. And it's harder now to whip either athletes or spectators into a frenzy over a summit meeting between the US and the USSR.

The two countries aren't as all-powerful as they used to be. And there are so many other individuals and nationalities to worry about now that Americans can't afford to concentrate all attention on beating the big bad Russians.

There's still a certain element, though, that considers it close to treason not to march out the biggest guns against

the Soviets. In their minds, there seems to be more than athletic competition at stake. They hold onto 1950s-ish faith in propaganda victories.

This kind of thinking is losing its hold on athletes—if it ever had much of a hold. They're viewing the US-USSR as one meet among many rather than a mighty end.

Some athletes, Marty Liquori among them, have even been bold enough to skip the encounter because it doesn't fit in with their long range plans. Liquori is an outspoken individual. Doris Brown isn't. She's not the type to stir up controversy around herself, and she's willing to serve her country in its hour of greatest need.

But the AAU presented her with an agonizing choice

in March. The International cross-country meet and the US-Soviet indoor meet were the same weekend. Doris had won every International—five in all—and prefers that phase of the sport. But the Soviet meet offered her a mile race with Tamara Pangelova, new indoor world record holder at 1500 meters.

Just what was the country's greatest need?

Mrs. Brown ran the Russian meet instead of the cross-country in England. After the International, an English reporter wrote, "Unhappily, she was unable to defend as she was instructed by the AAU to compete indoors against the USSR. And I hear she was in tears when she waved the American team off at the airport."

From all appearances, *pressured* to compete in the indoor meet would be a better word than *instructed*. It sounded as though some shadowy arm-twisting was going on. Why else would she pass up the meet she had won five times, had trained for all winter, and had qualified for? And why would she cry as the US team left for England without her?

"Were you pressured?" she was asked later. She quietly but firmly put down such suspicions. Yet she made no attempt to hide her bitterness over the fact that the two meets conflicted. Doris said:

"There was no pressure on me, I don't think. The decision to run the Russian meet was my own. I was very upset, though, that the two meets were scheduled on the same weekend, and that I had to make this choice. That was a bad thing.

"I guess the AAU just assumed I'd go the to cross-country meet. They told me it was my choice. I made my decision, but it wasn't an easy one, or one I liked having to make."

She told why she decided as she did. Significantly,

the decision took her long range plans into account, and not necessarily national glory.

"With the Olympics coming up, I needed that kind of competition (track) more. But it was still kind of a bad situation. All winter I'd been preparing for cross-country, not track. I wasn't happy at all with my race at Richmond, and I picked up tendonitis there, too." As it turned out, the women's team would have won without her. Doris broke her own world indoor mile record, but finished third.

"And it was hard," she said, "to pass up the cross-country meet because I had worked with the team and chaperoned the girls while they were here (in Seattle) training." The young team—average age 17—finished second in the International. With Doris there, they might have won.

"But I don't want to sound like an old sourpuss," Doris added. "I was proud to be a part of the track team, and proud of the cross-country girls. It's exciting to see these fresh girls, with no mental barriers, coming up."

So there was no intrigue involved, only an unfortunate scheduling conflict. She made her hard decision because the Russian meet offered the best competition, and not because her competitors were Russian.

"Long ago," Pat Putnam wrote in *Sports Illustrated*, "she decided she would run against people, not nations or ideologies or causes."

Putnam quoted Doris as saying, "To a lot of people, we *have* to beat the Russians. But, really, this meet is only a chance for some very fine competition against friends. People come up and say 'Good luck. Beat those Russians. Go get 'em!' I feel hypocritical always saying, 'Yes, thank you.' Sometimes I feel like saying, 'Hey, look, they're people, too, just like you. Why make something else out of it?'"



The young US team: front—Nadia Garcia, Eileen Claugus, Caroline Walker; rear—Jackie Dixon, Tena Anex, Beth Bonner, Debbie Roth, Jane Hill. (Mark Shearman photo)



11,000 FRENCHMEN

BY JEROME MC FADDEN

Jean Wadoux opened his campaign for a 5000-meter gold medal at Munich by running away from his countrymen in the first important cross-country race in the French season, the *Cross du Figaro*. But no one paid too much attention because the other 11,033 entries in the meet were too busy running their own races to notice just one other runner.

Don't get excited: all 11,033 were in the same meet, not in the same race! The *Cross du Figaro* is France's yearly mass manifestation of running/jogging. Like the Boston marathon, and consumer prices, the number gets bigger each year.

The newspaper *Le Figaro* sponsors the meet and does a great job of keeping it organized and under control. There are 31 separate races, starting at 8:30 in the morning and continuing for 8½ hours. Each age group, men and women, is split according to best times so that everyone has a chance to find his level of competition. Anyone who has ever run or jogged in France makes this race the highlight of his winter.

The course is basically a flat wide alley weaving through the trees and ravines of the Bois de Boulogne. The Bois itself is a beautiful, thickly wooded park on the outskirts of Paris. It is a perfect, and necessary, outlet for this city of nearly nine million people.

During the summer this park is overrun with dogs, Sunday afternoon walkers, picnickers, petanque players, the famous young lovers of Paris, hundreds of kids getting lost

from their parents, and joggers. Hidden among the trees are four small lakes, several elegant and expensive restaurants, two very exclusive sports clubs, and an extensive 24-hour-a-day prostitute curb service. But in the bleak, gray Paris winter it is deserted except for the joggers, the more serious cross-country runners, and the ever-faithful prostitutes, none of whom can afford to pass up the winter season.

Several races are held in the Bois during the cross-country season (November through March) but none of the others tries for the magnitude of *Le Figaro*. The build-up begins a month before the meet with the newspaper running one-column articles on expected participants, winner last year (there is even a family championship for father-mother-son-daughter combos), movie, television and political celebrities who have decided to have a go at it, and small notices that certain companies in Paris have decided to give their employees time off three days a week to train for the meet. A week before the meet the program is published, along with one or two photos of a celebrity trailing behind Jean Wadoux in a training jaunt.

But the build-up isn't needed. Every runner I met in the woods a month before the race proudly told me that he was getting ready for the *Figaro*. Most of them ran or jogged a little during the year but this was the race where they wanted to make their mark. ("Faire un boom!")

The feature race of the day is the *Cross des As*, or the race of aces. It is open to anyone brave enough to get into it, but it is strictly meant to be a fast-man's race. Yet there is no glittering group of international stars. The money and emphasis is spent on mass participation. The internationalists are



International track ace Jean Wadoux wins the huge "Cross du Figaro." (Le Figaro photo)

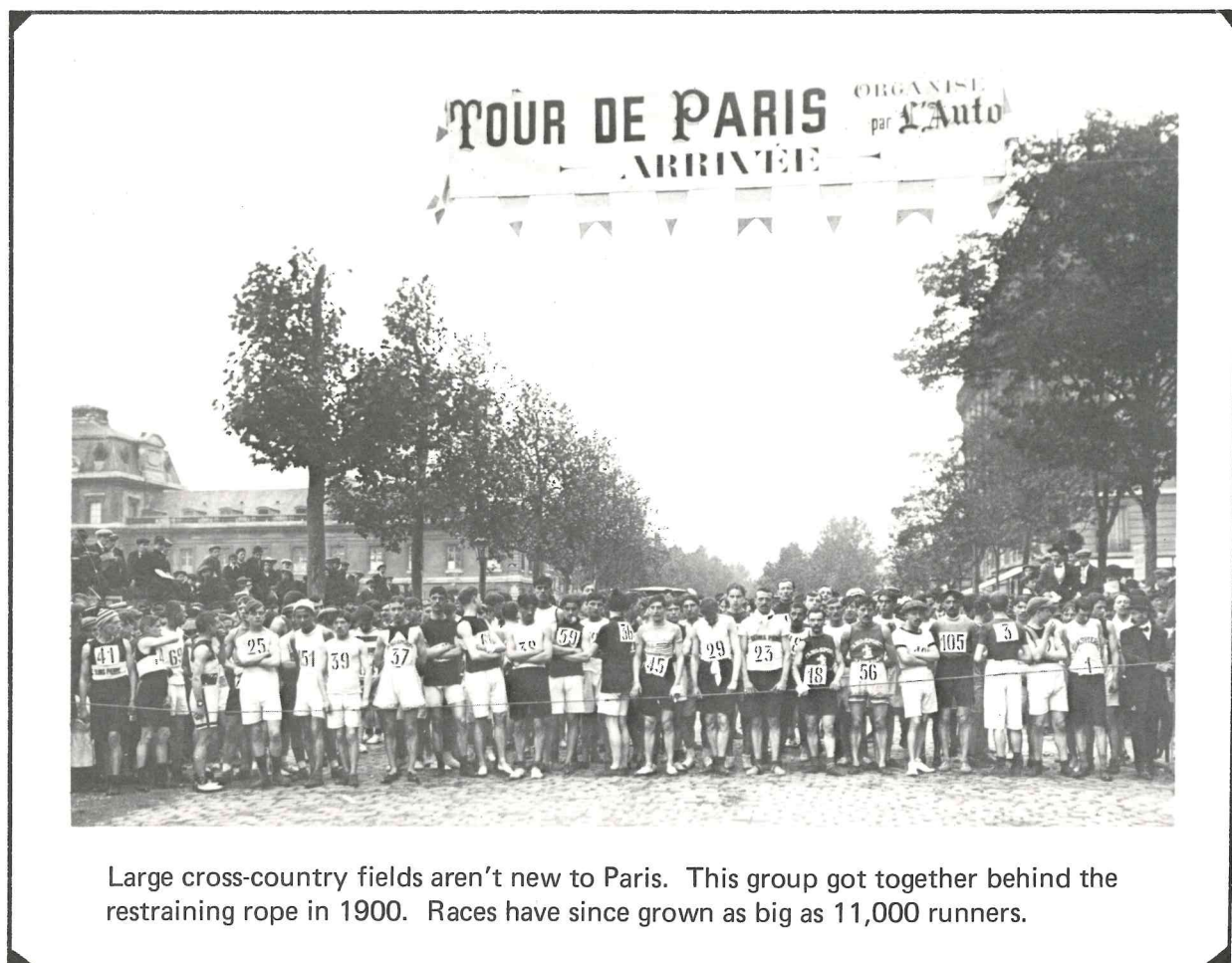
welcome if they want to come, but they have to pay their own way.

The permanent French front-runners come without fail: Wadoux, Noel Tijou, Lucien Rault, Jacques Boxberger, etc. Michel Bernard is still around, and still strong, having ran a 13:40 5000 meters late last August—at age 39! Retired Michel Jazy did not run, but he was on the sidelines representing a sporting goods firm.

Wadoux and Tijou did not wait for the other aces this year. At the end of a mad 600-meter scramble of 250 runners, the two super-aces emerged in the lead. Tijou tried to sit a blistering pace to burn off the European 1500-meter record holder. The two were all alone very quickly. But at the mid-point Wadoux put on a strong surge to bluff Tijou and broke free. He finished far in front, running the 9.5 kilometers in 30:05.8. Tijou was a well-beaten 16.8 seconds behind him.

But even before the "aces" were finished, another group was forming at the starting line. This is everybody's day, not just the big boys! The oldest runner in the meet, retired General Hebrard, received as many cheers as Wadoux for his next-to-last finish in the race for "old spikes" (65 years and up). The fastest old spike covered the 3.9 kilometers in 15:31.6.

I left before all of the races were finished; 8½ hours is a long time to watch cross country, even for an addict. But even as I was leaving there was a stream of runners cutting through the trees in the fading light of the early Parisien evening, intent on making their own "boom," even if no one was watching.



Large cross-country fields aren't new to Paris. This group got together behind the restraining rope in 1900. Races have since grown as big as 11,000 runners.

EUROPEAN SUMMER OF '72

From the mail we've been getting, it seems that half the US running population will be in Europe this summer. It's a good place to be ANY summer, but particularly this one.

The Olympics are in Munich, of course. But only a lucky few are going to be seeing them personally. And fewer yet will be running there. That's not the extent of running opportunity on the Continent, though. Also being held in West Germany this summer is the World Veterans track meet and marathon—for runners and walkers over 40.

This is in addition to the regular summer activity. Keep in mind that the European season runs later than it does in North America. It reaches its peak in the months June to September. There are literally hundreds of meets—ranging from all-comers-type club events to international track and long distance races.

The problem is knowing where to find them. That's what most of our letters are about. "I'm going to Europe this summer," they begin. "I was wondering if you could tell me..."

BELGIUM (*Ligue Royale Belge d'Athletisme, 61-63 rue de Marche-aux-Herbes, Bruxelles 1*)
International Track—June 11, 25, July 2, Aug. 5-6 at Brussels.

CZECHOSLOVAKIA (*Czechoslovak Athletic Section, Na Porici 12, Prague 1*)

International Track—June 1 at Ostrava; June 3 at Bratislava; June 21, July 16, Aug. 23 at Prague.

Road Races—June 4 at Novi Mesto (Mar); June 10 at Osek-KHn (20K); June 18 (Mar), July 16 (Mar) at Prague; June 18 at Melnik (25K); June 24 at Domazlice (Mar); July 2 at Vranov (Mar); July 9 at Karlovy Vary (Mar); Aug. 5 at Upice (Mar); Aug. 12 at Dobris-Pribram (20K); Aug. 19 at Martni (25K).

DENMARK (*Dansk Athletic Forbund, Verster Voldgade Nr. 11, 1552 Copenhagen V*)
International Track—June 10-11, 26-27, Aug. 12-13 at Aarhus; July 29-30 at Copenhagen.

Cross-Country—Sept. 10 at Copenhagen*.

EAST GERMANY (*Deutscher Verband fur Leichtathletik der DDR, 1005 Berlin, Storkower Strasse 118*)

International Track—June 10-11, 15 at Potsdam; June 14 at Berlin; June 23-25 at Erfurt.

FINLAND (*Suomen Urheilulitto-ry, Box 25202, Helsinki*)

International Track—June 8, 28-29, July 25-26, Aug. 19-20, 27* at Helsinki; June 8 at Tampere; June 24-25 at Saarijarvi; June 27 at Oulu; July 19 at Turku; Aug. 11-13 at Joensuu.

FRANCE (*Federation Francaise d'Athletisme, 10 rue de Baubourg, Poissonniere, Paris X*)

International Track—June 3-4, 8, 14, 24-25, July 4-5, 21-23, Sept. 30-Oct. 1 at Paris.

HUNGARY (*Magyar Athletikai Szovetseg, Budapest XIV, Isvan-Mezei-ut 5*)

International Track—June 11, 15-16, 22-25, July 1-2, Aug. 12-13, 23 at Budapest.
Road Races—July 16 at Szeged (Mar).

NETHERLANDS (*Koninklijke Nederlandse Athletiek-unie, Nachtegaal-straat 67, Utrecht*)

International Track—June 9 at The Hague; July 11-12 at Arnhem.

Road Races—June 4 at Zundert (15K); June 18 at Maastricht-Kimbra (10M); June 24 at Sliedrecht (25K); July 1 at Rotterdam (Mar); July 15 at Echt-Falea (20K); July 15 at Lisse-de-Spartaan (25K); July 22 at Gorkum-Typhoon (10M); July 29 at Oss de Keien (Mar); Aug. 11-12 at Sittard (100K); Aug. 12 at Utrecht-Hellas (25K); Aug. 19 at Baarle Nassau (25K).

NORWAY (*Norges Fri-idrettsforbund, Youngstorget 1, Oslo 1*)

International Track—June 13, Aug. 15 at Bergen; July 2-3, 26, Aug. 2-3, 21-22 at Oslo; July 6 at Trondheim; Aug. 11-13 at Stavanger.

POLAND (*Polski Zwiazek Lekkiej Athletyki, Warsaw, ul. Foksal 19*)

International Track—June 17-18, 27-28, Aug. 9-10, 17-19 at Warsaw.
Road Races—June 24 at Debno (Mar).

SWEDEN (*Svenska Fri-Idrottsforbundet, Hamlegardsgaten 17, Stockholm O*)

International Track—June 13, 26-27, July 5-6, 27, Sept. 6-7* at Stockholm; June 30 at Vasteras; Aug. 4-6 at Umea.
Long Distances—June 10 at Skannige (30K); June 17 at Osterhaninge (Mar); July 15 at Gotland (Mar); Aug. 19 at Skannige (Mar); Sept. 1 at Stockholm (CC*).

SWITZERLAND (*Federation Suisse d'Athletisme Amateur, Hirschengraben 8, CH-3011, Berne*)

International Track—June 23 at Zurich; July 29-30 at Geneva.
Road Races—June 9-10 at Biel (100K).

UNITED KINGDOM (*British Amateur Athletic Board, 26 Park Crescent, London W1N 4BQ*)

International Track—June 10, July 14-15, Aug. 4-5, 24-25*, Sept. 15 at London; June 16-17 at Edinburgh; July 21-22 at Cardiff.

Long Distances—June 4 at Manchester (Mar); June 10 at Renfrew (14M); June 10 at Hatfield (19M); June 17 at Beeston (15M); June 17 at Brentwood (10M); June 24 at Peterborough (10M); July 1 at Welwyn (13M); July 1 at Windsor-Chiswick (Mar); July 9 at Manchester (20K); July 15 at Horsham (10M); July 22 at Ewell (20M); July 29 at Ripon (10M); July 29 at Heckington (10M); July 29 at Woodford-Southend (37½M); July 30 at Perty (15M); Aug. 5 at Tornaby (10M); Aug. 6 at Holbeach (10M); Aug. 12 at Chesham (12M); Aug. 22 at London (CC*); Sept. 2 at London (30M); Sept. 3 at Cornwall (10M); Sept. 9 at Greenwich (11M); Sept. 16 at Dagenham (13M); Sept. 16 at Hull (13M); Sept. 17 at Swinton (10M); Sept. 24 at Dinnington (Mar); Sept. 30 at Norfolk (15M); Oct. 1 at London-Brighton (52½M).

USSR (*Light Athletic Federation of the USSR, Skaternyipereulok 4, Moscow 69*)

International Track—June 7-8, 28-29, July 17-20 at Moscow.

WEST GERMANY (*Deutscher Leichtathletik Verband, 35 Kassel, Friedrich-Ebert-Strasse 137*)

International Track—June 21-22 at Augsburg; June 24 at Stuttgart; July 5 at Coblenz; Aug. 16 at Stuttgart; Aug. 17 at Berlin; Aug. 19-20, 23, 31-Sept. 9 at Munich; Sept. 12 at Berlin; Sept. 13-16 at Cologne*.

Long Distances—June 6 (15K), 20 (20K) Aug. 15 (15K) at Husum; July 15 at Dusenhofen (Mar); July 29 at Kressbronn (Mar); Aug. 5 at Eckenhausen (20K); Aug. 18 at Bensberg-Frankenforst (15K); Aug. 20 at Augsburg (30K); Sept. 17 at Cologne (Mar*).

Information includes location of the meet or race. T=track meet of international caliber; CC=cross-country; *=limited to runners over age 40; distances of long distance races are listed—e.g., 25K is 25 kilometers, 10M is 10 miles, Mar is marathon.

DANGERS OF THE HIGHWAYS

BY HAL HIGDON

A running companion of mine named Ralph has no respect for the dangers of this automotive age.

Ralph might most charitably be described as a long distance jogger, not runner, a Volkswagen in a world where laurels go to Ferraris. As I write this, he has failed again to meet the qualifying standard for Boston and alas, barring some sudden surge of dedication, he never will.

He lives on the south end of town, across the street from some woods, a minute's jog away from a cinder track, not far from some back country roads. Yet Rollo insists on tempting death by running his workouts through the heart of town, sometimes late at night, along an unlit two-lane street.

Even when he comes out to run on the lake shore near my home, he often shuns the beach (except on days when girls in bikinis are present) and trundles along the road above.

You can go two directions from my house: west into town and east out of town. West into town isn't bad except between 3:00 and 6:00 in the afternoon when people in cars returning from school or work clog the road. By big city standards, the traffic hardly rates as "heavy"—but why encounter any traffic at all when there are alternative routes? I tell Ralph this, but like Horace Greeley, he says: "Go west, young man."

Ralph also complains of backaches and when I suggest that he move off the hard pavements in favor of the many softer nearby paths through woods and over golf courses, he sneers. He fails to see the connection between physical injuries and his methods of training. Several years ago we convinced Ralph to run in a cross-country meet when we needed a fifth man, but he got lost and failed to finish.

Ralph also suffers another ailment common with many runners today: marathon mania. Any distance below or above the traditional 26 miles 385 yards is beneath (or maybe above) his dignity. Yet he will climb in his car and drive night and day to attend a marathon 1000 miles away.

That is another hazard for runners in the automotive age. Many years ago I belonged to a ski club in Chicago, an equally peripatetic breed who would rush off in their cars on Friday evenings, ski and party for two consecutive days, then drive home late on Sunday evening to be home in time for work the next morning. In the three years I belonged to the club I only recall one broken leg on the slopes but two people hospitalized and one dead in separate automotive accidents. The only thing that saves long distance runners on their equally peripatetic weekend jaunts is that during our season there is seldom snow or ice on the roads.

But consider the dangers of automobiles, both when you are in them and when they are coming at you. Dogs may not be runners' best friends, but they certainly aren't runners' worst threat. That dubious honor belongs to the automobile.

During the past decade, Ralph Nader has effectively pushed Detroit to the point where cars today are considerably more safe than those of a decade ago. But that's on the inside. For the runner, it matters little whether he gets hit by a 1962 or 1972 car. Datsuns can inflict the same damage as Cadillacs.

Recently I have read of several runners to have been killed by automobiles. We probably are fortunate that the toll has not grown larger.

Several years ago on a wintry afternoon with snowflakes falling, I ran with another training companion called Steve toward the town of New Buffalo north of my home. We ran on the shoulder of a four-lane highway.

I looked ahead and perhaps 200 yards away a passenger car started to pass a semi-truck. But the roads were slick and the rear end of the car began to break loose. The car spun and slid across the highway into the ditch, hitting with a dull cru-umpp! The semi drove on, its driver possibly unaware of the accident in its wake.

Steve and I reached the car quickly and found the driver more embarrassed than hurt, so we continued our run. But I couldn't help but think that mere chance had prevented us from being at the point on the highway where we would have been clipped by that spinning car.

It is the chance we all take when we leave the relative security of the running track to share the hazardous environment of the automobile. Sometimes there is no alternative. To not run on the roads for some runners means to not run. But that doesn't mean that we can't become defensive runners just as the National Safety Council urges people to be defensive drivers.

Long distance runners are a singular, testy breed. We are individualists. Under stress, any person's judgment can become impaired. When it comes down to those last few miles of a long distance workout, it becomes irritating to have to move over when approached by a speeding car. Yet consider the alternative if you don't move.

I know many runners who take the position that it is they, not the drivers, who should possess the right-of-way. They run into traffic as though daring drivers to hit them, forcing cars to swerve across the center line to pass.

I consider this an act of arrogance.

More than that, I consider it an act of suicide. The next time you are behind the wheel of a car look ahead and imagine a runner in your path. Consider the maneuver you would have to make to avoid him. Then consider that another car was coming toward you, preventing you from moving wide. Finally, consider the consequences if you happened to be daydreaming, or drunk, or maybe were mad at the world.

That imaginary runner you would have hit might have been Ralph.

ONE IRISHMAN WITHOUT LUCK

BY CAROLYN KING

Potentially he is one of America's best distance men, three miles and up. He holds the American record in the marathon at 2:11:12, set in his second marathon. He has never been on an Olympic team and most track buffs do not even blink an eye when his name is mentioned.

Eamon O'Reilly.

If you did not blink, that is not surprising...but just you wait. Eamon is back in the running, and if he can escape the fate of another injury this season he may be the most talked about runner of 1972. Escaping injury isn't easy for him, though. Almost from the start, he has been an incredibly ill-fated runner...

Eamon began his career at St. Benedict's Prep School in Newark, N.J. After going out for cross-country as a sophomore, he found he enjoyed it and decided to continue. By the time he was a senior, he was winning cross-country invitational meets every weekend. On the track, he was concentrating on half-miles and the mile. As a junior, he ran a 4:26 mile. However, sickness prevented him from competing much his senior year.

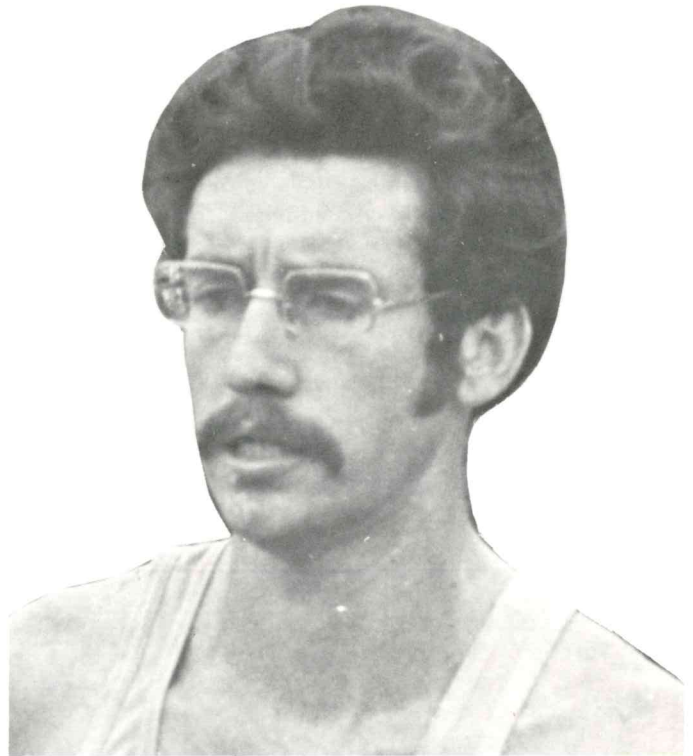
Eamon enrolled at Georgetown University in the fall of 1962. During his freshman cross-country season, he won all his dual meets but placed about 100th in the IC4A championships. He was leading the pack and took a wrong turn. "I'll never live that one down," he says.

It was soon after that the first in a long series of injuries occurred. He had been having tendon problems with his left foot, but kept training until it became too sore and he finally was forced to consult a doctor. This was also his first experience with receiving bad medical advice.

He says, "Be wary of diagnoses because most doctors don't have the experience of the mechanisms involved in the injuries of runners...they tend to think in terms of a normal person and just can't understand the problems involved."

The first treatment not only did not do any good, it extended the injury. "And this was the first time I heard them say 'he'll never run again!'" By finally getting a correct diagnosis at least six months later and discovering the injury had been an inflammation of the lateral tendon, he strengthened the foot with exercise, got supports to boost his arches and was competing mildly in track the spring of his sophomore year. That was Olympic year (1964). But due to his injury he had not met the qualifying times and spent the summer running just for himself and competing in an occasional all-comers meet.

His junior year was fairly trouble-free. For variety, he competed in the steeplechase and placed fifth in the



"I try to be objective about my own physical fitness," he says. "I bring my strength and speed up to the highest level and then I'll race. I've even been able to predict what times I'll run on some occasions. I can just feel when I'm ready to run. Running is a hard thing to do, but it's a simple process, so I just feel good and get out and do it."

NCAA championships at 9:04. Then, in August 1965 while he was just "out running," he injured his right hip. This prevented him from training August or September prior to his last year at Georgetown. When cortisone shot finally cured the hip problem, he went on a crash training program and eventually won the IC4A cross-country championships that fall—in course record time. He also placed second in the NCAA championship and sixth in the AAU.

The AAU race qualified him for the International cross-country championship in Morocco the following March. He was the third American finisher—and he contracted amoebic dysentery. This illness lingered so long he could not compete the spring of his senior year and he did not begin running again until the next spring when he moved to California to begin training with Bob Schul.

A year later, after concentrating on track and cross-country distances for 10 years, Eamon tried a marathon. "It was Tom Laris' fault," he says. "We'd run together on weekends and he kept telling me I ought to try it. He just said that once too often!" On April 21, 1968, O'Reilly ran 2:16:38 in an Olympic qualifying race. "I'd never run that far before, even in training. I had never really believed

people until then, because those last six miles were the hardest thing I've ever done."

It was an Olympic year again and he was aiming to qualify in both 10,000 meters and the marathon. He moved his family to Lake Tahoe that summer, and immediately caught the flu and was in bed for days. Then, on July 16, while out running over rough terrain, he stumbled in a pot-hole, tore some ligaments in his left hip and did not run again for almost a year. "By this time," he says, "my injuries were becoming a comedy of errors!"

Time and cortisone treatments gradually took care of the hip problem and by the fall of 1969, while attending graduate school at Georgetown, O'Reilly was training seriously again. He competed in cross-country that fall, had what he calls a "terrible indoor season," and then placed second to Ron Hill in the Boston marathon on April 20, 1970, setting an American record of 2:11:12. He had started at Boston the year before, just to check out the course, but did not finish. He decided to try it the next spring simply because it was easy to get to from Washington and because, generally, American performances had not been that good there. He handily took care of that.

The next year and a half after the Boston triumph Eamon was plagued with serious foot and ankle injuries again. He broke an ankle in the summer of 1970 doing speed work. It was operated on in the fall. After the operation it was still bothering him, and by the spring of 1971 he was still not running. On top of all this, he broke his toe that summer and in September he stumbled on a trail and

tore ligaments in his rib cage. It was the same comedy of errors all over again, and he still had the nagging foot problem.

"When you have an injury ask other runners about it," Eamon says. "If you have the same symptoms, you possibly have a similar problem. That's how I found out what was really wrong with my foot this time. I talked to Sam Bair, who had similar trouble, and then hounded doctors until they agreed to operate."

O'Reilly's latest operation, was in mid-October last year and an inch-long scarred section of the digital nerve between his fourth and fifth toes on his left foot was removed. He was walking in a week, jogging in two, running in four, and six weeks later he ran 8:57 for two miles. To date he has dropped his personal record for two miles to 8:39.4 (at Philadelphia) and placed fourth at three miles in 13:21.6 at the AAU indoor championships.

Injuries have forced Eamon to train infrequently, but when he does train, he trains hard. "I train as I feel. I have a minimum set and I don't do less. But if I don't feel like running one morning I just don't." When he does, he takes a straight run when he gets up—his minimum being a half-hour. He gets bored if his pace is too slow, so his tempo is about six-minute miles. Then he usually puts in a 10-14-mile run in the evening. Prior to a race, he'll confer with his coach, Frank Rienzo (of Georgetown University and Georgetown AA) and do two or three workouts on the track.

"Rienzo and I have a good working relationship and I rely on him for advice on what to do," O'Reilly says. "I have a tendency to overwork on the track. He's more conservative, so he keeps me in line and tells me to get out and go home when I've done enough."

Eamon seems to have a sixth sense about his physical capabilities. "I try to be objective about my own physical fitness," he says. "I bring my strength and speed up to the highest level and then I'll race. I've even been able to predict what times I'll run on some occasions. I can just *feel* when I'm ready to run. Running is a hard thing to do, but it's a simple process, so I just feel good and get out and do it."

Eamon enjoys running, he likes to compete and he likes to win, but family, job and school commitments—besides his injuries—have kept him from appearing frequently on the track circuit. He has a wife, Sandy, and two small children (Dierdre, 2, and Michael, 5) to support, so he is teaching part-time as well as working towards a PhD degree in mathematics. He had to turn down invitations to compete in Australia and Trinidad this spring, for example, because of these commitments. "Finances are a real problem," he says. "I've been in school and I haven't been saving money. If I go to Eugene (for the Olympic Trials) in June, Sandy and the kids won't be able to come with me."

He is going to make another try for the Olympics this year in either the marathon, 10,000 meters, or both. He won't make any definite commitments on where or when he plans to make the qualifying standards for the events, though. "It's a decision I'll have to make at that time. It depends on a lot of things and how I feel then." He said that evasively, with a sly grin and a twinkle in his eye. It looks like Eamon O'Reilly is ripening for another record or two, so watch out for him this summer. He could easily surprise everyone. Now to keep those pesky injuries away...

PROBLEM SOLVER



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† Report, INTERNATIONAL RECORD OF MEDICINE.

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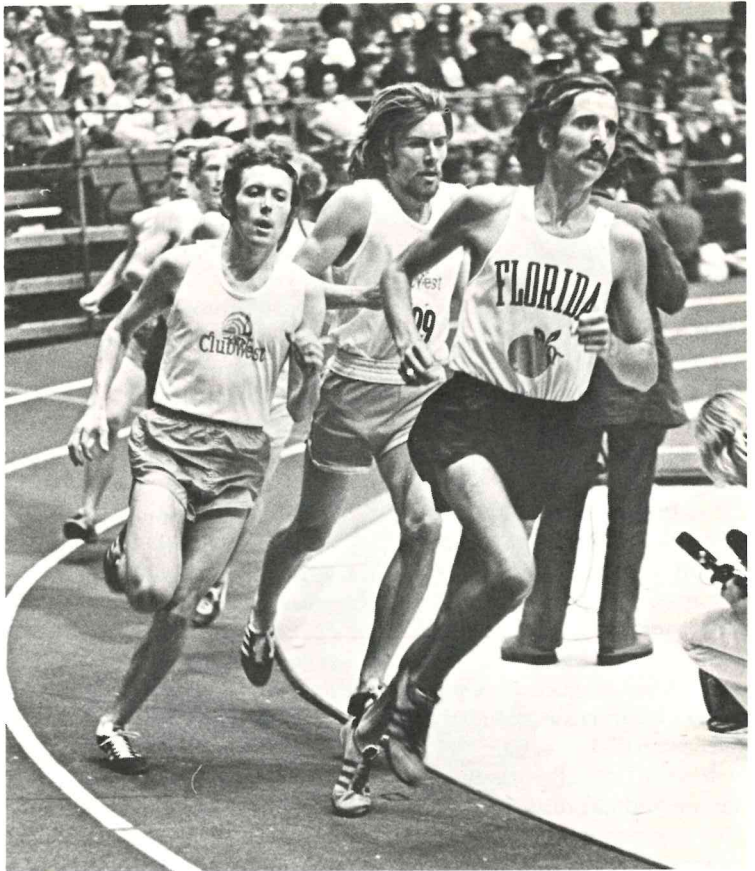
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Indoors or out, paths point to Munich. Frank Shorter tows the indoor field at right. (Don Chadez photo) Below, leading 800-meter candidate Juris Luzins wins at Los Angeles. (Pantovic)



ROAD TO MUNICH

Two recent shifts in policy affect runners and race walkers hoping to qualify for the US team.

● *It may be easier for trackmen to get in.* The Olympic Committee has backed off somewhat from its plan to let in only those men who'd met the Games qualifying standards. All race fields will have a minimum of 24 runners or walkers, including those without Olympic standards if entry lists are small enough.

● *Marathon restrictions, however, have been tightened.* Six months into the qualifying period, the final procedure was determined. The version apparently decided upon: sub-2:30 races must have been on *certified* courses—meaning approved by the national AAU. Several runners who thought they'd made it were bumped out by the change in plans. The fate of several more is hanging in the balance, as certification is pending on courses in Scottsdale, Ariz., Ft. Walton Beach and Gainesville, Fla.

(It isn't known how strictly officials will hold to this procedure. Several runners without certified times are rumored to have been given special permission to enter.)

At least the following men have qualified for the men's

trials in Eugene, Ore. They have met the qualifying standards. The women's meet at Frederick, Md., reportedly will open to the top 10-12 finishers in each event at the AAU championships, plus others who run certain standards. No US women have yet met the Olympic Games qualifying times.

By the time the next issue is to the readers, the US Olympic teams will have been chosen. The top three finishers in the men's and women's trials go to Munich—provided they have met the listed standards. The winners qualify regardless of performance.

Here is the schedule for the men's meet at Eugene. It roughly approximates the Olympic format, stretching over an 11-day period. Entry and ticket information is available from the University of Oregon Athletic Department, Eugene, Ore. 97403. Ticket prices are \$3 and \$6 daily for reserved seats, \$2 and \$3 for general admission, and \$1 and \$2 for students. A reserved-seat ticket for the entire meet costs \$28. (H=heats; S=semifinals; F=final)

THURSDAY, JUNE 29

6:00—800m (H)
6:50—Steeple (H)
7:45—10,000m (H)

FRIDAY, JUNE 30

7:00—800m (S)

SATURDAY, JULY 1

5:15—20K Walk (F)
8:00—800m (F)

SUNDAY, JULY 2

7:00—Steeple (F)
7:30—10,000m (F)

TUESDAY, JULY 4

4:00—50K Walk (F)

THURSDAY, JULY 6

5:00—5000m (H)
8:10—1500m (H)

FRIDAY, JULY 7

8:05—1500m (S)

SATURDAY, JULY 8

7:00—1500m (F)

SUNDAY, JULY 9

5:00—Marathon (F)
7:50—5000m (F)



Only physically troubled Sam Bair (8) and Jim Ryun (inside lane) failed to break four minutes. (L-R) Mark Winzenried, John Lawson, Tom Von Ruden and 34-year-old George Young all made it. (Pantovic)



OLYMPIC TRIALS QUALIFIERS

These are the athletes who have met Olympic qualifying standards (or have made the trials in the case of the marathon and walks, which have no Olympic standard). The times are from outdoor track races, marathons on certified courses and walks between Aug. 1, 1971 and April 10. Standards are listed in parentheses: y=yard or mile time; m=metric time.

800 METERS (1:47.6m/1:48.3y)

1:45.2m Juris Luzins (Virginia)
 1:46.2m Mark Winzenried (California)
 1:46.8m Tom Von Ruden (Oklahoma)
 1:47.2m Lowell Paul (West Germany)
 1:48.1y Jim Ryun (Kansas)

2:22:25 Dave White (California)
 2:22:30 Reid Harter (Oklahoma)
 2:22:44 Carl Hatfield (West Virginia)
 2:22:59.9 Russ Pate (Oregon)
 2:23:06 Herb Lorenz (New Jersey)
 2:23:17.6 Tom Hollander (Connecticut)
 2:23:18 Paul Hoffmann (Texas)
 2:23:19 Greg Brock (California)

2:28:54 Wayne Comer (Texas)
 2:29:00 Dave Bronzan (California)
 2:29:02 Reuben Diaz (Hawaii)
 2:29:05 Bob Gray (Oregon)
 2:29:06* Jose Cortez (California)
 2:29:11 Mitch Kingery (California)
 2:29:11 Allen Rude (California)
 2:29:24 John Lesch (Illinois)
 2:29:33 Bill Gookin (California)
 2:29:39 Dave Russell (California)
 2:29:40 Bob Price (California)

1500 METERS (3:41.6m/3:59.6y)

3:41.0m John Baker (Maryland)
 3:57.8y Tom Von Ruden (Oklahoma)
 3:59.5y Mark Winzenried (California)
 3:59.5y John Lawson (California)
 3:59.6y George Young (Arizona)

2:23:28 Brook Thomas (California)
 2:23:32 Gareth Hayes (North Carolina)
 2:23:33.7* Pete Span (Arizona)
 2:23:44 Jon Anderson (California)
 2:23:53 Fred Lands (California)

20-KM. WALK (1:45)

1:33:25 Goetz Klopfer (California)
 1:33:25 Larry Young (Missouri)
 1:33:35 Ron Laird
 1:34:45 John Knifton (NY)
 1:35:34 Bill Ranney (California)
 1:36:42 Todd Scully
 1:37:25 Phil McDonald (Ohio)
 1:38:15 Tom Dooley (California)
 1:38:34 Bob Kitchen (California)
 1:39:35 Steve Tyrer (Oregon)
 1:39:45 Ron Daniel (New Jersey)
 1:39:49 Bob Bowman (California)
 1:39:52 Ray Somers
 1:41:05 Bob Henderson
 1:42:25 Jack Mortland (Ohio)
 1:43:16 Ron Kulik
 1:43:16 Howard Palamarchuk (Pa)
 1:43:50 Jerry Bocci (Michigan)
 1:43:50 Steve Geiver
 1:43:52 Leon Jasionowski (Michigan)

5000 METERS (13:21.0y/13:48.0m)

13:39.4m Frank Shorter (Florida)

2:24:00 Phil Ryan (California)
 2:24:17* Jerry Jobski (Arizona)
 2:24:37.8 Larry Blancett (New Mexico)
 2:24:54 Tom Bache (California)
 2:25:12* Damien Koch (Arizona)
 2:25:35 Jim Pearson (Washington)
 2:25:38 Bill Clark (California)
 2:25:59 Larry Miller (Oregon)
 2:26:06 Jeromee Liebenberg (California)
 2:26:11* Vern Graham (Virginia)

10,000 METERS (27:55.0y/28:50.0m)

27:22.4y Steve Prefontaine (Oregon)
 27:22.8y Jack Bachelor (Florida)
 27:22.8y Frank Shorter (Florida)
 27:38.0y Tom Laris (California)
 27:52.2y Ron Pryor (California)
 27:54.8y George Young (Arizona)

2:26:16* Gary Bertsch (Virginia)
 2:26:18 Bill Norris (Oregon)
 2:26:40.5 Jack Bachelor (Florida)
 2:26:44* Skyler Jones (Arizona)
 2:26:44.8 Moses Mayfield (Pennsylvania)
 2:26:56 Larry Pontinen (California)
 2:26:59* Don Kennedy (Georgia)
 2:27:04 Steve Dean (California)
 2:27:11 Jim Backus (California)
 2:27:47 Gerry Lindgren (Washington)
 2:27:49.3 Marshall Adams (North Carolina)
 2:28:05 John Loeschhorn (California)

STEEPLECHASE (8:38.0)

MARATHON (2:30; *=cert. pending)

2:12:50.4 Frank Shorter (Florida)
 2:15:21 Bill Scobey (California)
 2:15:52 Norm Higgins (Connecticut)
 2:16:20.6 Mike Hazilla (Michigan)
 2:17:45 Doug Schmenk (California)
 2:18:05.6 Don Kardong (California)
 2:18:39* Ken Misner (Florida)
 2:19:24 Scott Bringham (Utah)
 2:19:34.5* Jeff Galloway (Florida)
 2:20:16.2 John Vitale (Connecticut)
 2:20:25 Wayne Badgley (California)
 2:20:26 Kenny Moore (Oregon)
 2:20:45 Mike Gregorio (California)
 2:21:31 Duncan MacDonald (California)
 2:22:01* Dennis Spencer (Georgia)
 2:22:21* Mike Mittelstaedt (Virginia)

2:26:16* Gary Bertsch (Virginia)
 2:26:18 Bill Norris (Oregon)
 2:26:40.5 Jack Bachelor (Florida)
 2:26:44* Skyler Jones (Arizona)
 2:26:44.8 Moses Mayfield (Pennsylvania)
 2:26:56 Larry Pontinen (California)
 2:26:59* Don Kennedy (Georgia)
 2:27:04 Steve Dean (California)
 2:27:11 Jim Backus (California)
 2:27:47 Gerry Lindgren (Washington)
 2:27:49.3 Marshall Adams (North Carolina)
 2:28:05 John Loeschhorn (California)
 2:28:15.5 Jay Dirksen (South Dakota)
 2:28:17 Chris Miller (California)
 2:28:24 Gary Tuttle (Texas)
 2:28:24 John Weidinger (California)
 2:28:24 Tom Fleming (New Jersey)
 2:28:28.8 John Brennand (California)
 2:28:33 Darren George (California)
 2:28:43 Bob Darling (California)

50-KM. WALK (5:00)

4:13:35.8 Bob Kitchen (California)
 4:28:48 Larry Young (Missouri)
 4:39:00 John Knifton (New York)
 4:40:27 Jerry Bocci (Michigan)
 4:41:39 Ron Kulik (New Jersey)
 4:47:50 Bill Walker (Michigan)
 4:52:35 Gary Westerfield (New York)
 4:59:09 Ron Daniel (New Jersey)

THE SUPER-RUNNERS

BY MICHAEL JENKINSON
© Natural History Magazine
January 1972

In the Sierra Madre Occidental of northwestern Mexico there is an Alice in Wonderland sort of region where mountains often rise so gently they seem almost flat and bottomlands appear perpendicular; where canyons carved by creeks seem deeper than the Grand Canyon of the Colorado; where fruit trees have houses; where owls may be no bigger than sparrows; and where running Indians leave tire tread imprints on dusty trails.

Some of the many trails in the barrancas country are rough but passable for burros or mules; others are scarcely more than goat paths that traverse harrowing ledges and throny slopes. Over these the Tarahumara Indians stride easily in sandals with soles made from discarded truck tires. Frequently the journey is to a friend's or relative's dwelling, which might be a log and stone structure, a lean-to, or a cave. Caves also serve as goat pens and burial places. For the most part, Tarahumaras tend to live in isolated family units rather than villages.

There are approximately 35,000 Tarahumaras, occupying about an equal number of square miles. Because game and edible plants are sparse, crop failure often means starvation. Only one out of five Tarahumara babies lives to age five; the rest succumb to malnutrition and disease.

The Indians who do survive in this harsh yet bewilderingly beautiful landscape are short, wiry, and possessed of incredible endurance. Women from small settlements deep in the barrancas, such as San Luis and Divisadero, frequently walk to Chihuahua and occasionally even to Ciudad Juarez, infants in shawls on their backs. The Juarez trek is roughly equivalent to a hike from Phoenix to Los Angeles, or about 400 miles, and in places the Chihuahua desert presents almost

as sere a landscape as the Mohave in Arizona and California.

Tarahumara hunters literally run deer into the ground. Once on the track of a deer, a man or several men will continue to jog after it for hours, rarely in sight of the prey, skillfully reading the most minute signs. By the second day of steady chase, the fled animal usually drops, exhausted, and the hunters kill it with knives and rocks.

Recently, a Tarahumara courier was dispatched from the Jesuit mission center at Sisoguichic to assess food supplies in several Indian hamlets. He was said to have covered 50 miles of rough mountain trails in six hours—including the stops at each hamlet. Forty years ago, a Tarahumara chief was invited to send runners to a marathon in Kansas. Learning, to his great surprise, that the course was to be a mere 26 miles, the chief sent three girls.

Tarahumara running ability appears to stem from a combination of biological and cultural factors. Tests indicate that many of these people have low blood pressure and pulse rates. From childhood, women spend much of their time scrambling up hillsides after goats: men hunt and engage in running games. Houses are often distant from fields, water supplies, and neighbors. The rugged terrain provides constant conditioning. Probably most important, however, is that running is encouraged in Tarahumara society. One way for a man to attain great prestige is by excelling in this particular activity.

The Tarahumaras may be the finest natural distance runners in the world. Yet when taken out of their natural environment, performance pales, just as does that of the gifted high jumpers of central Africa when they do not leap from rounded, cement-hard anthills. Although there were some Tarahumara runners on the 1928 Mexican Olympic team, and others have more recently been persuaded to try out for international competitions, the results have not been dramatic. For one thing, there is the matter of diet. The Tarahumara lives mostly on corn gruel in the mountains. When he comes to an Olympic training camp, he is given beefsteaks to eat and his gaunt gut is filled with eggs and milk and other strange food. His metabolism begins to run crazy. He doesn't sleep much, and when he does he has weird dreams.

Then there is the matter of where he runs. In the mountains he is always loping up rocky hillsides and then plunging down again; there are logs to be hopped and flocks of goats to be skirted. Here, at the training camp, one just runs around in a circle. Nice grass inside, but still a circle. Round and round. It soon gets boring.

And there are always people watching: at the important races, concrete mountainsides of spectators, shrieking and yelling at the top of their lungs. For a Tarahumara, who has a doe-like shyness with any but his own people, it is a terrifying situation.

Drawing by
Bill Canfield



Finally, then, there is the matter of footwear. A Tarahumara's feet are splayed out from constant, unconfined use, broad, with deep permanent cracks in brown soles. All his life he has worn sandals, tire tread lashed to bare feet with thongs. At Olympic track meets he is expected to push his feet into confining leather shoes, some even have cleats like hard shiny cactus spines on the soles.

No, running in shoes is about as appealing to a Tarahumara as competing in a gunny sack would be to an American athlete. But back in the mountains, without medals and only a few of the weird dreams still lingering, the Tarahumara runners again compete in tribal games, running for miles through wild country where birds dart up against the sun and canyons drop away into haze and grandeur.

The most popular and elaborate Tarahumara sport is called *rarijipari*, a sort of marathon kickball race. The top runners of a district, locally known as an *ejido*, compete as a team against the best competition another *ejido* can put up. The *ejido* chiefs determine the course, marking it with crosses cut into the bark of trees along the way. Individual laps may vary from three miles to 12 while the entire contest may last for three days and cover up to 200 miles. At night, the runners carry pine torches to light their way.

On occasion, short races of 50 miles or so have been staged for anthropologists or other visitors. At one such abbreviated affair, it was discovered that two quarts of tequila promised by the sponsor had been overlooked in a flurry of barbecue preparations. One of the runners made a loping beeline over the hills for eight miles to the nearest source, returned with the bottles and, after throwing back a couple of stiff ones, was ready for the race.

Major *rarijiparis* are not taken lightly. As the event draws near, spirited wagers are made, sometimes with money, but more often with cattle, sheep, goats, drums, flutes, clothing, or other personal effects. Since most Tarahumaras are poor and the betting may be heavy, the outcome of a race can drastically deplete or increase a bettor's assets.

For a period of two to five days before a contest, runners avoid contact with women, and are careful not to eat fat, eggs, potatoes, or sweets. *Tesguino*, a drink made from fermented corn sprouts, is forbidden, although gallons of it are brewed for the upcoming festivities. The runners' legs are rubbed with smooth stones and oil and brushed with herbs and boiled cedar branches.

Magic is used too. Once the kickballs, which are about the size of a grapefruit, have been carved from madrono wood, a shaman takes them to a burial cave. The shinbone of a man's right leg is exhumed. The bone, the wooden balls, bowls of food, and a jar of *tesguino* are set before a cross, and the spirit of the dead man is asked to cast a spell that will weaken the opponents. Other bones may be taken and secretly buried at certain places along the *rarijipari* course. Runners of the shaman's *ejido* are advised of those places, so they will not pass near them; hopefully runners of the other team, unaware, will become fatigued. The relics, the Tarahumara believe, can exert a powerful influence for a short distance.

The night before the race, candles are lighted on either side of a small wooden cross. The runners arrive, many with the fetishes they will wear to make them strong in the race: eagle feathers, hawk and vulture heads, glowworms, and rattles made of deer hooves. The shaman chants and sings the "song of the gray fox." The runners make ceremonial turns around

the cross and candles, the exact number of laps they will run during the *rarijipari*. Then the runners wrap themselves in their blankets and are soon in deep, untroubled slumber, next to the food and water they will take at intervals throughout the race. Here, their opponents' magic cannot touch them, for the shaman will remain with them to protect them until dawn.

On the day of the race, excitement is at fever pitch as more and more Indians surge in from the backcountry. There are a number of small fires for cooking and for warmth. A certain amount of sly flirtation goes on (most Tarahumara girls, informally but permanently, acquire mates by the time they are 14 or 15 when they normally develop a strong physical urge for a man), but generally the men tend to group together around different fires from the women. Gourds are dipped into cut-off oil drums filled with *tesguino*. Old friendships are renewed. Bets are made. There are flocks of goats everywhere, herded by tiny, barefooted girls who keep strays in line by lobbing stones at them with amazing accuracy.

Before the *rarijipari* gets under way, the governor of the home *ejido* may give final instructions, reminding the runners that anyone who throws his kickball by hand will not only be disqualified but will wind up in hell. The Tarahumara do believe in a nasty place where wrong-doers emerge after death. (When pressed for physical details about this place, they profess ignorance, saying no Tarahumaras have ever gone there. All they claim to know is that there is a devil with a bitchy wife, and that their numerous offspring are Mexicans.)

The teams start off. Only one runner at a given time kicks the carved globe; others carry bladed sticks with which they feed the ball toward him. Rather than actually kicking the wooden ball, which even for a Tarahumara's leathery foot would soon become toe shattering, the runner slips his toes under the ball and flips it with his foot. Each team is accompanied by six referees who make certain that no shortcuts are used, no tripping or other foul play occurs, and that no runners are chewing the dried leaves and seeds of the *riverame* plant. It is believed that the breath of a *riverame* chewer, blown into an opponent's face, will cause the opponent to have the blind staggers within half a mile. Drunks, naturally, must be kept off the race course, and pregnant women, considered bad luck when it comes to matters like this, are kept from watching the runners. The life of a *rarijipari* referee is no easier than that of his counterpart in baseball.

The runners, jogging through darkness or through the heat of high noon, often chew peyote as a stimulant. At certain specified spots they stop for warm water and *pinol*, rest briefly, then continue on.

Along the course, people sleep, talk, and play violins and flutes. Fires glow in the night, and one must reach deep into the oil barrels to scoop out *tesguino*. Life's hardships, the struggle for survival, are briefly forgotten in laughter, music, and the mingling of people who share the same thoughts and places.

At the end of the race sometimes only one man is left, the others having fallen away in exhaustion. He receives no prize—only a small percentage of the bets.

Yet he will know, even when he is very old and half-dozing in lost dreams, that he once did something better than anyone. For the Tarahumara, running is more than just self-satisfying; although it does not automatically lead to power or wealth, to excel in running is a major way to gain prestige.

WINNERS IN NATURE'S OLYMPICS

BY PAT TARNAWSKY

Percy Cerutti's idea that runners might do better to gallop like horses opens up an interesting vista. There *are* a lot of world class runners in the animal kingdom. Most of them, moreover, make our best human runners look like they're moving backwards. Wild animals are born athletes. They have to be. If they're not, nature hands them a DNF.

The cat family can boast of some super-sprinters. Cats don't have the natural stamina for long runs, for the simple reason that they don't need it. They evolved as solo hunters, so what they need is the size, speed and strength to handle alone whatever prey each cat species prefers. In Africa, for instance, the lion can knock off big game like zebras and the larger antelopes, while the odd little long-legged serval gets along by running down smaller antelope and sailing straight into the air to snag birds in flight.

Take the slender spotted cheetah, said to be the fastest animal of all. According to a recent *International Wildlife* article: "From a crouching start he can reach 45 miles per hour in two seconds. A second or two more and he's hurtling along at more than 60 m.p.h." But the cheetah can't stay up for farther than around 300 yards. If he misses his prey's throat at that maximum he gives up and lies down to recover, sides heaving.

And to think that the best a human sprinter can do is about 25 m.p.h. over 100 yards.

Even the great new world jaguar, who is built more like a shot putter, does an incredible dash. Since the jaguar must operate in the close confines of his forest habitat, his maximum range is shorter than that of the cheetah, who is an open-spaces animal. One hundred feet covered at 40 m.p.h. from a standing start is enough to land the jaguar on his quarry's back, in position to bite through the skull into the brain.

A medley of top sprint and middle distance runners can be found among the hoofed, grass-eating mammals, or ungulates. Since ungulates are prey species, they must be capable of a sustained pace that will keep them ahead of a variety of predators. One top team are some of the elegant antelopes with bizarrely twisted horns who roam the Asian and African plains.

The gazelle antelope, nilgai, blesbok, gemsbok, eland and wildebeest can match or outrun a fast horse at their maximum distance; some even get up to 50 m.p.h. Only a cheetah making a record run can haul down an Indian blackbuck. Most astounding of all is probably the tiny brown goitered gazelle of central Asia. At 30 m.p.h. he is still jogging. His kick accelerates him up to 60 m.p.h. But his best aerobic-efficiency pace is apparently 40 m.p.h., at which he can run within himself for 10 miles.

But the distance king of the ungulate runners is the horse. Actually, to be accurate, we have to say "one type of horse." Because down through history, all trophies for speed and stamina have gone to the little "oriental horse," most important of the world's three primeval equine stocks. The Arab is the most ancient oriental breed, and the related North African Barb is old too. The Arab is the foundation strain of all three horses bred exclusively for speed—the thoroughbred, standardbred and quarter horse.

These three merit a look if only because their speed, unlike that of wild animals, can be clocked under controlled conditions. The thoroughbred is a real miler. Tall, narrow-



chested, long-muscled, short-backed, he uses the perfect gallop inherited from his desert ancestors to get over a mile in a minute and a half. He can show stamina up to a seven-minute four miles.

By contrast, the standardbred's most perfect gait is the trot or pace, so he has developed a slightly longer, lower body. But he's almost as fast; he can clock a mile in 1:55. The punchy little quarter horse, with his powerful haunches, can do a 440 in 22 seconds or less. He's best as a sprinter, but shows respectable speed and stamina over longer distances, which is why he's so valued as an all-purpose horse.

But it's when he returns to the wild that the oriental horse shows his most hair-raising distance running talents. Contrary to myth, the little wild horses who still haunt remote areas of North and South America are not degenerated, worthless runts. They mainly descend from oriental horses of Arab and Barb strain brought over by the Spanish.

So potent are the oriental genes that today's mustangs still often show Barb or Arab characteristics. They're small, narrow-chested, slope-shouldered, wiry, with a back one vertebrae shorter than all other horses. It's a physique that's perfect for running and surviving.

No sooner is the newborn mustang foal dried off and standing up than he must be able to run for his life. According to mustang expert Hope Ryden, if he's too slow (thus acting as a brake on the fleeing band) the stallion will kill him.

Natural pacers are a frequent oddity among mustangs. This is a smooth, side-winding gait in which both right legs swing forward simultaneously, instead of the right front and left rear leg, as in a trot. Pacers can stay up for incredible distances. There are many true stories of mustang pacers who kept it up all day and wore out their pursuers.

South American wildlife expert Stanley Brock has told me of his mustang-hunting days as a cowboy in Venezuela. There, bands of tough little Spanish-type horses roam the Rupununi savannahs, and make fine saddle-horses—if you can catch them. The horses would often run for 20 or 30 miles without a break, over rough country, at either a fast canter or a flat-out run. Cowboys stationed every three miles on fresh mounts would keep them moving. The less hardy ones would drop from burst lungs, but the best would either get away or have strength left for a terrific fight in the corrals.

"Needless to say, we didn't catch many of them," says Stanley. "In my opinion, a wild horse running without a rider

can outlast any of the world's antelope at a run."

Endurance races for horses are becoming increasingly popular in the western United States. They are 40- or 50-mile affairs, you have to finish in a given time limit, and the winner is the animal that finishes in the best shape, not the first one across the line. Heart rate, respiration and metabolism are checked immediately on finishing, and again one hour later to determine the recovery rate. Wouldn't it be interesting if these standards were applied to human runners? In fact, the horses receive training and diet strikingly similar to human runners, sort of a Lydiard-type week with staggered distances adding up to about 150 miles weekly, with uphill work for strength. About the only difference is that the horses are wormed before they start training! The pace at which best endurance is shown is a fast, long-striding trot, which would seem to let out Percy Cerutty's theory, at least over distance.

For more long distance, we can look to the canine family. The wolf is a marathoner, and sometimes a super-marathoner. In fact, according to the experts, few animals stack up as much annual mileage as the wolf.

Since wolves enjoy the convenience of hunting in packs, they do not need the size and speed of the cats. What they do need is stamina, as commune life forces them to ceaselessly range their pack territory in search of meat. This they do at a fast, tireless trot. In his classic study, noted American biologist L. David Mech says, "The entire dog family is more adapted to running than are any of the other families of meat eaters, and the general build of the wolf is especially well-suited to trotting." This build features a narrow chest, longer legs and smoother gait than other canines.

Mech saw wolves cover anywhere from 20 to 40 miles

a day through the rugged North American woods. In the arctic tundra, wolves may get in an astonishing 120 miles in one day, across the open, hard-packed snow. On top of this, wolves can throw a respectable burst when they chase prey or are chased by men. They have been clocked at as fast as 35 or 40 m.p.h. for a quarter-mile, around 25 m.p.h. for a mile or two.

Another surprising long distance ace is the African spotted hyena. This ugly but intriguing dog-like animal (actually, he's not a true canine) has been slandered by people ignorant of wildlife. Far from cowardly, he is a tough and skillful hunter who will even tangle with rhinos. Contrary to myth, hyenas prefer live game, eat carrion only if there's nothing else around. The noted British naturalists Hugo and Jane Van Lawick-Goodall recently did an intensive hyena study, and came to admire the hyena's stamina and running talents.

When he's standing still, the hyena doesn't look very athletic. He's high-shouldered, short-legged, plump-bodied, with that face straight out of Charles Addams. But as he closes on a fleeing wildebeest, he suddenly looks steely, graceful and long-legged, and can hit around 40 m.p.h. During a night's hunt, say the Goodalls, a hyena pack may run for 10 miles in a stretch, holding their comical bristly tails high. And, as human runners do, they carry on esoteric conversations while on the run, calling out their wierd laughing "OOOOO-whup!"

Primitive man shared this life-or-death fitness with the animals. Today, unfortunately, man has learned to survive with little or no effort. Running, we can reach back into that harsh but healthy world of the animals, to repossess that vital spark of aerobic energy.

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COACHING AGAINST THE ODDS

BY JIM MC FADDEN

Building a high school program in a large, rich suburban high school is one thing. Skip Stolley explained how to do that very well in a recent issue (January 1972). But things don't work quite the same way out in the sticks.

I'm a first-year high school coach. When I arrived at River City High School (I'd rather not give the real name of this 800-enrollment school on the Mississippi river in Iowa), I found the school had never had cross-country; it had no budget for cross-country (not even a coach's salary); the track team had been last in the conference the previous spring, and only one boy had tried to run as far as a mile. The school track record board hung in the back of the boys' locker room, behind the water pipes—probably for good reason, since no record beyond the 440 had been broken since 1929.

At our first meeting, three boys showed up. I decided I shouldn't limit our program to dedicated year-round distance runners. We recruited six basketball players and a couple of wrestlers who wanted to get in condition for winter sports, a football halfback who didn't want to cut his hair, and a music student who wanted to get out of marching band. All told, I had 15 bodies—not very fit ones at that—to work with.

After a couple of weeks of shakedown training, I decided to take the team for an easy three-mile run through the woods. I must have picked up the pace too much after the first mile. When I looked around, no one was behind me. The runners were lost in the woods somewhere. Fortunately, they all found their way back before dark.

Our training did get tougher as the season progressed. We got up to 150 miles one week; 150 for the entire squad, that is.

Due to clever scheduling by our athletic director (also the football coach), our first meet was with the defending state Class B champions. I wasn't too upset. I figured if we did well it would help morale, and if we didn't it would show the boys we still had a lot of work to do. I was right... they still had a lot of work to do.

We also tried promoting the sport locally. We had a

picture of the team and the schedule in the city and school papers, announcements in the daily bulletin and on the radio, and posters in key places. At the first home meet the "crowd" consisted of two cheerleaders, the student manager, one mother, my wife and somebody's hunting dog.

Our school couldn't afford a Super-8 movie camera and a cassette tape recorder to record the meet, so my wife took Polaroid pictures, I took notes on the back of an old envelope. The dog barked a lot and kept the "crowd" entertained with his near misses at runners' legs.

Our runners pointed toward a "target race." For most of them, it was the last race of the season, which meant they wouldn't have to run any more cross-country.

We had team goals, too: getting everybody to practice every day for a full week, keeping at least five boys out until the end of the season, and not being America's worst distance running program.

Fortunately, that old coaching saying that there's always someone else better and worse than you is true. We finally did win a meet. It was a big day for the boys. The football team even let them get in the showers before all the hot water was gone. The principal was pleased, too, and said if we kept it up he might be able to get us blanks for the starter's gun next year.

At the end of the season, we had a "special" cross-country banquet (well, it really was a picnic). It had to be special; the football team wouldn't let us come to theirs. Instead of awards for achievement and improvement, I gave awards for survival and perseverance—their survival, my perseverance.

We were going to show a track film we rented. But the company sent it to River City, Ohio. It was probably just as well. We would have had trouble tying the screen to a tree, anyway.

My only real disappointment is that all the experience the boys gained last fall isn't going to help the track team. They're all going out for baseball and tennis.

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WOMEN'S WANDERINGS

BY PAT TARNAWSKY

● The headliner, of course, is that women wore numbers in Boston this year. Here's the behind-the-scenes story:

A year or two ago, BAA director Will Cloney already had been mulling the idea of making women official. But the race's overloaded facilities could not handle them, and overloaded Cloney had enough to do without arranging for a complete new set of facilities for females. So last spring, when I wrote him in my capacity as Road Runners Club eastern women's coordinator, offering RRC help in organizing a women's section, he accepted immediately.

Thus, RRC got the women their own Hopkinton and Boston dressing quarters, and their own transportation for the valises of duds. The BAA provided sponsorship, numbers, safety pins, medals, and (lovely touch) a female podiatrist. Will and I maintained a most amiable liaison over the phone. He announced the news at a press conference on March 29, and it made the sports pages across the country, he said.

Cloney's courage in making this step ought to be appreciated by everybody.

● The AAU sanctioned women in Boston, but not without hitches, snaggles and boggles. It seems that two different AAU factions have two different ideas of what current AAU policy is regarding women's divisions in men's long distance races.

In one corner is Pat Rico, national women's chairman, who is now giving some marathon sanctions under the new permission system. She insists that women not only be separately scored, but that they start at a different time and/or place, in order to stay firmly under the women's rules. In the other corner is a bunch of runners, race directors, the RRC, and several AAU committee heads. They insist that the women's rules are obeyed by separate scoring alone. They insist, moreover, that current policy—as voted on by Rico's committee at the last national convention—accepts Ken Foreman's recommendation that women and men start at the same gunshot, but be separately scored.

For instance, in her sanction letter to Cloney, Mrs. Rico said at first that the women had to start 30 minutes ahead of the men. Will's eyes simply glazed over when he read this. Obviously Mrs. Rico has never had to worry about 26 miles' worth of delicate traffic and time-keeping arrangements being discombobulated.

This controversy ought to be cleared up before everybody is confused out of their skulls.

My view is this: since the AAU has accepted the idea of women running in men's races as a separate section, all this niggling about the start is just plain academic. Even if you start the sexes at two different points or times, they end up running down the same road together anyway, so what's the difference?

Let's start them together and score them separately, and call it two separate races. Doing it otherwise just makes it tough for race organizers and officials, who have it tough enough as it is.

● A fresh new face in the marathon ranks is Pat Barrett of Spring Lake, N.J. and the Shore AC. She was 1971 New Jersey AAU cross-country champion.

She showed up out of the blue at the Cherry Tree marathon and ran a nice 3:24. On this her second try at the

distance, she qualified for Boston and set an age-group record. Not bad.

Vital statistics on Pat: 17 years old, red hair, 5'2", 102 pounds, 40-50 miles a week, hard-easy intervals, one 15-miler a week. She had put in only three months' LSD prior to Cherry Tree, so she can probably break three hours. Her attitude, reports her father (who helps coach her), is that she is "very happy running" and determined not to burn herself out in high school, but to grow with the sport at her own pace.

● Everybody's talking about running-relating sports. So how about soccer? It's respectable aerobic exercise, with steeplechase-type jumps and falls thrown in.

American women aren't into soccer yet (because American men are only now discovering its charms), but women elsewhere are starting to make like Pele. This is only natural—out there, soccer is glamorized the way football is here. And unlike football, soccer is within women's physical capabilities.

Some countries, among them Italy and Spain, already have women's teams competing regionally and internationally. In Spain it's reached the fad level—Madrid alone has 10 female teams. In Uruguay they're even integrating—Claudina Vidal plays formidable center forward on the men's team, the Sudamerica.

The spectacle of these little women tearing up the turf in cleats and stripey socks has stirred up the predictable amount of controversy. The pros and cons are at each other's throats about whether soccer does terrible things to women's insides. The girls, though, insist that soccer makes them feel great.

● Back on the home front, women runners are starting to enjoy some real charisma in the press. The *New York Times* recently ran a feature story on the "golden girls" with "sex appeal" swarming into track. As proof positive, there were photos of Pat Donnelly, Laurie Barr, Rose Allwood, Deanne Carlsen, Willye White and Canada's Debbie van Kiekibilt.

The toothsome occasion was the AAU indoor championships at Madison Square Garden in February, which *Times* writer Neil Amdur termed "more than a girl-watcher's delight," and added, "The sensuous woman is a runner."

Then there was that April *Harper's Bazaar*, where a little of the gold dust rubbed off on the female survivors of last fall's New York City marathon.

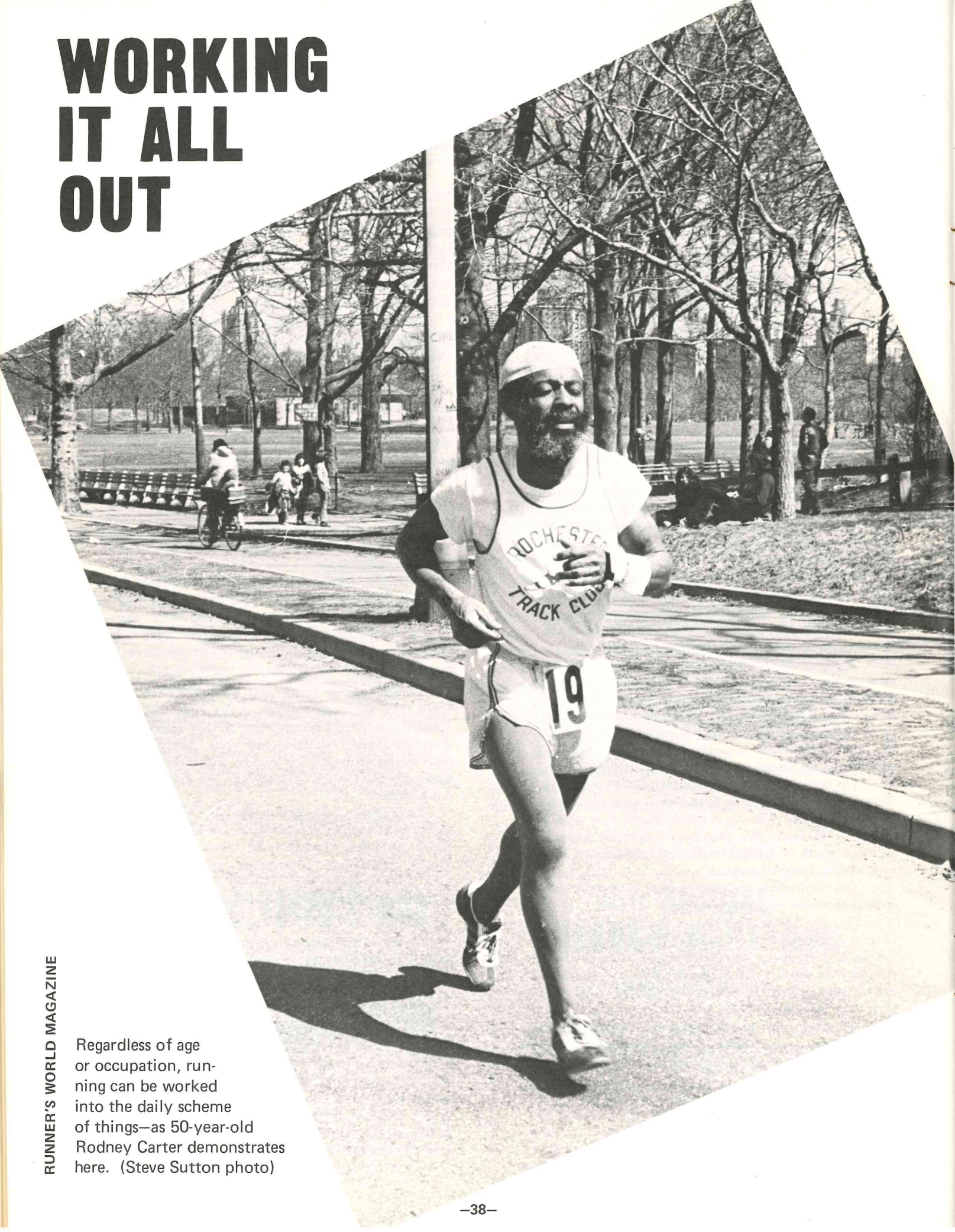
● Finally, a housewifery tip. (This column always tries to include one practical item.) Running has given me a new and unique idea for using up stale bread, and I would like to divulge to *RW* readers.

I'm serious. It works like this:

Our weekend runs take us through the magnificent Silver Lake preserve near our White Plains, N.Y., home. It is 2000 acres of bosky dells. The lake is haunted by wild swans and geese who know what people bearing bread crusts are all about. All I have to do is start my workout with a sack of bread in my hand. The birds have ESP or something. At any rate they are always waiting by the bank as we come striding along the trail. They clean up every crumb.

It sure beats making bread pudding.

WORKING IT ALL OUT



RUNNER'S WORLD MAGAZINE

Regardless of age or occupation, running can be worked into the daily scheme of things—as 50-year-old Rodney Carter demonstrates here. (Steve Sutton photo)

Perhaps the hardest transition a runner makes is going from school to work. The sudden shift from a loose schedule in high school or college to a rigid workday shakes up a lot of running routines. It happened with Amby Burfoot.

Four years ago, Amby could rightfully claim he was the best marathoner in the United States. He won at Boston, and though he missed the Olympic team (he was injured) he ran 2:14 at the end of that year.

Burfoot graduated from Wesleyan University and went to work—as an elementary school teacher. Though he still runs, his racing has never recovered. He simply doesn't have time anymore to run 120-140 miles a week. He's lucky to get half that.

A year after starting to work, Amby said, "I was in the worst shape I'd been in since high school. The reason I've had so much trouble training is because teaching has been much more demanding than I could have imagined. It has been a real struggle to go out and run after a tough day in the classroom.

"I found teaching to be a much more formalized, constrictive life than I was accustomed to. I worried about my responsibilities constantly. When I ran, it seemed I had to run fast to save precious minutes for planning, correcting papers, etc. Consequently, I ran quite hard, didn't enjoy it as much, and found rationalizations for skipping workouts."

Amby calls this the "Fear of the Precious Minute Syndrome." Its victim finds himself with too little time and too much to squeeze into it. Those runners accustomed to the most leisurely and drawn-out training are the most likely victims.

Burfoot reached an important conclusion when he said he not only didn't have time to run, but he didn't have time for rest and the other non-running things that contribute to good running.

Runner's World noted several issues back ("Distance Running Scene," November 1971) that last year's Pan-American Games team included only college students and military men. There were no eight-hours-a-day, five-days-a-week, 50-weeks-a-year working runners. The story mentioned, too, how many Olympic contenders are giving up their jobs to gain more time for training.

The reason is clear. Mileages move upwards from 100 a week runners at this level. This means a minimum of two hours a day is spent on the sport; often more. If bread-winning work takes a huge chunk out of each day, the running time must come from otherwise "free" time before and after work: an hour's less sleep here, one less hour with family and friends there.

Top runners understandably want to make their living situation easier while they're training hardest. Their goals, they feel, justify short-term employment sacrifices.

But what of the less gifted runner who nevertheless enjoys the sport and wants to stick with it? How does he justify the demands of his job with the desire to run?

Not very well, it appears. The man with a full-time, year-round job is part of a minority group, and the sport discriminates against him to some degree.

RW surveyed its readers last fall. Well over 1000 of them answered the questionnaire, and nearly all were runners of some type or ability. They listed their occupations.

About 30% of those responding were students. Another 27% were teachers, in a working situation which is

one of the most conducive to running. In other words, well over half the runners were involved in education, which offers short and flexible hours, and long summers and holidays.

What happens to the other working stiff? Since they make up considerably more than half of the general population, most of them apparently shrug and say, "I don't have time to run" (which more likely means they don't want to *make time* to run, since that would mean cutting precious minutes from other activities).

Those who do run adapt as best they can. This can mean cutting runs shorter than they'd like them to be; carrying an extra load of fatigue and tension; running in the dark as often as not; doing some personal and social sacrificing.

It isn't all this grim, though. Running has rewards for the run-for-funners as well as the internationalists, and runs may well be the highlight of a working man's day—particularly if he finds ways of fitting it into his day fairly comfortably.

There are ways to do that. The best is making the run a *part* of the workday rather than apart from it. Some companies, as Dave Theall points out in the following article, are encouraging their employees to exercise at lunch time. At Stanford University in California, a large group gets together at the school each noon. They call themselves the "Lunch Bunch."

A high mileage man will have a hard time fitting his full quota of running into the noon hours, though. Ron Hill and other Englishmen have found a solution to that.

Hill has written, "For the working man, and more especially the married man, it is not easy to fit in around 100 miles a week without conflict to social and family life. But with careful planning it can be done.

"The easiest way of accomplishing this is by training twice a day... The best way to train twice a day is by running to work and back. Taking myself as an example, I run seven miles to work each morning and between 8½ and 12 home again in the evening."

Hill, a chemist, doesn't leave for work until after 7 a.m. He's home in the evenings around 6. But he still accumulates 25 or more miles a day.

What about showers? Not many companies provide them (Dave Theall deals with this problem in the next article). Hill's answer: "In England, we don't shower as much as you do in America. It isn't really necessary. You're not really dirty, you know. I just sort of sponge off and dress. Besides, my A.M. workout isn't that fast." Odor-obsessed Americans may not go for this.

Another way to adapt to the working situation is to economize on mileage, making best possible use of available time. The obvious solution is to pack a lot of miles into the weekends, and take shorter runs on weekdays.

Orville Atkins, who has been within a couple of minutes of 2:30 in the marathon for a decade, runs low mileage. He says he does 70 a week. But the figure is deceiving. He gets in 40 of those on Saturday (25 miles) and Sunday (15), then coasts through the week averaging only about six a day.

This article has stressed the negative side of running and working. There's a positive side, too. Running can complement work. Most jobs now are mental. They stretch the brain and nerves to the limit while the body stagnates behind a desk. A brisk run in the fresh air, body working and mind relaxing, puts things back in balance. As economist John Mitchell says below, it's a good investment in your working future.

EMPLOYER SUPPORT

BY DAVID THEALL

Most proponents of running maintain that the sport requires little more in the way of equipment than a good pair of running shoes. That's true, but two of those "little more" items must include soap and warm water.

Non-school runners generally rely on their homes to shower or bathe after running. But when it is more convenient either to run to work, or at work, then it's essential to have a shower facility *at work*.

Many companies support and sponsor workday athletic and exercise programs for their employees. Whether it's for health, morale, or both, there is a strong, enlightened precedent to build a case on if you are interested in being able to run to work, or at noontime. I can't imagine management objecting to either, unless lunch time is a half-hour and less than 10 miles of running is inadequate for you. When trying to convince employers it would be good company policy to provide clothes-changing and shower facilities, the main arguments have to center on maintaining good occupational health. The Pepsi Cola Company, among others, has an executive fitness program to protect its "investments" from premature heart attacks. Running also contributes to mental acuity on the job. I know I am more alert and productive in the afternoon after a 20-minute jog along Washington's Mall near the Capitol Building than when I merely labor at my desk from 9-5:30. When

told by a superior that he'd have to stop his noon time hour of running, a Navy officer asked if it would be better if he joined the "two-martinis-for-lunch-bunch." He's still running.

What I am suggesting is that runners try to secure shower facilities at work so they can better work running into their lives, rather than visa versa. It is warmer at noon than in the morning or night during the winter. Furthermore, wives and children should (1) find it less time-conflicting, and (2) less embarrassing. My teen-age daughter doesn't like to explain why her father runs around at night. And there are far fewer loose dogs in business areas than in residential areas.

The machinery of government sometimes grinds slowly at HEW, particularly in regard to spending thousands of tax-payer's dollars installing showers for a few adult runners. We don't have our own shower yet. But I have gained access to a friendly neighboring agency's shower. The benefit is the same, and it's a blessing enabling me to feel the trampling of the leaves, to see the tourists visiting their capital city, to run in the daylight, and to break up a day behind the desk.

It benefits employer and employee alike.

David Theall is a management consultant in the office of the Secretary of Health, Education and Welfare, Washington, D.C.

WISE INVESTMENT

BY JOHN MITCHELL

Anyone who runs is aware of the feeling of freedom and the exhilaration that comes from cruising about the landscape under one's own power. These experiences are for many reason enough for running. But there is another way of looking at running which may motivate other people. That is to view running as an *investment*.

Economists are concerned with investment in human capital. We usually think of investment as expenditures to erect buildings, or machines that will provide incomes in the future. But running can also be considered investment in that a regular program may provide additional future income. The number one cause of death is heart disease, and the effects of running on circulo-respiratory endurance, blood pressure and weight are factors which reduce the risk of heart problems. Additional future income can result from the possible increase in working life resulting from the running.

The investment is primarily in the form of time. The hours spent running are a cost to the individual in the sense of opportunities missed. For example, if he runs rather than works for \$5 per hour, the opportunity-cost of running can be thought of as \$5 per hour. Other costs are minimal in that little special equipment is required except shoes.

The costs and the returns of the activity can be compared, using conventional techniques of investment analysis. It is necessary to discount the costs and the returns to the present; a dollar of additional income many years in the future is worth less than a dollar of additional income today.

An example: Suppose that a 35-year-old man with an annual income of \$10,400 (\$5 per hour), jogs for three hours per week through age 65. We will assume that the running program will prevent a heart attack and allow the man to work for 10 extra years—from age 55-65—during which time his income will remain at \$10,400 per year. Using a 6% discount rate and assuming that the individual will have to buy shoes every other year for \$15, the present value of the costs is \$10,879 and that of the returns is \$23,867.

To many runners this aspect of running may be irrelevant. But it is a benefit of running that is significant and a nice supplement to the esthetic considerations. It also furnishes ammunition which can be used to reply to sedentary persons who scoff.

Running is investing in yourself.

John Mitchell is a marathoner, as well as an assistant professor of economics at Boise State College in Idaho.

RACE WALKING REPORT

BY MARTIN RUDOW

After 1968, for the first time in history, United States race walking fans could be optimistic about the country's chances in world competition. With third and fourth places at Mexico City, and several promising young walkers coming on strong, the outlook was very bright. In the intervening three years, this promise has not been fulfilled, but now once again things are looking up. And surprisingly the strength seems to be at 50 kilometers, long a no-man's land in this country.

As readers of this column are aware, it was not until 1968 that the US had even an outside threat at the long distances. At Mexico City, Larry Young and Goetz Klopfer showed that they could compete with anyone, however, and it seemed that nationwide a mental block was removed.

Now, in 1972, at least six walkers look strong enough to walk with all but the very best of the eastern Europeans. Young and Klopfer are still at it, and (especially Young) look better than ever. But the real strength may come from two others, Dave Romansky and Bob Kitchen.

Of course, it's always easy to overestimate the strength of the athletes trying to get to the top, and underestimate the long-time champs. While Romansky and Kitchen are not exactly new walkers, their strength at the 50-kilometer distance may be a surprise.

Romansky has puzzled followers of walking the past year with his actions—loudly retiring from the sport because of style problems, publicly berating judges when disqualified, and dropping from sight for several months. Now, reportedly with a new attitude and approach, Dave is back, vowing to concentrate on the 50-kilometer walk since illegality and the threat of disqualification is not so much a problem at the longer distance. Romansky came back awfully fast, winning the AAU indoor mile and doing well in the US-USSR indoor meet. If he is still serious about concentrating on the 50-kilometer he will be tough to beat. Memories of his 4:15 "50" two years ago while untrained for the distance still strike fear in other contenders.

The real news these past few months has been the astounding performance of young Bob Kitchen. Kitchen was first alternate on the 1968 Olympic team, but his times were far slower than what he has been doing lately. Now living in San Francisco, Kitchen shocked us all last fall with a world record in the rarely-walked 35-kilometer distance. His time, 2:37:34.0, showed great strength. But Kitchen has displayed before a tendency to walk great times, then fade for several months and not come near his previous performance. For awhile, it looked like this was to be the case—until Kitchen did it again in February with a new US record at 50 kilometers. His 4:13:35.8 is in fact the fifth fastest time in world history.

While Kitchen's competitiveness is well known, it's still true that his best efforts have come in relatively non-competitive track races. We still look forward to seeing



ABOVE:

Dave Romansky
(Steve Sutton photo)

RIGHT:

Returning Olympic medalist Larry Young. (Pantovic)

Kitchen compete against the other top contenders. It may be that we'll have to wait until the Olympic Trials this July to see this happen.

Besides these four—Klopfer, Kitchen, Young and Romansky—such contenders as Bob Bowman, John Knifton and Todd Scully cannot be overlooked. Bowman has been a top contender at the long distances since 1963, but never has looked as strong as this year. He has the benefit of experience, certainly; he probably has competed in more pressure-type 50-kilometer's than anyone else in the country. John Knifton, too, cannot be underrated, although he has yet to walk a good distance time since last summer. Knifton has an excellent competition record: national "50" champ in 1970, and second last year in a close finish with Larry Young. Often these athletes who have been consistent for a few years will again prevail at the big races over fast-improving latecomers. Scully is the newcomer to serious contention but his hard training and training opportunities make him a factor. An Army walker with unlimited training time, Scully has taken advantage of this opportunity to put in 120-140 miles per week and has improved radically.

I expect to get several letters from other walkers who are training seriously for the "50," asking why they weren't included. Well, unlike a few years ago, we don't look for anyone to "come out of the woodwork," although it is always possible. It'll probably be easier this year to make the 20-kilometer team, even with such stalwarts as Tom Dooley and the evergreen Ron Laird in this event.

Whoever makes the 50-kilometer team this year will probably have to dip under 4:15 to do it—amazing improvement considering that just eight years ago 4:55 took Mike Brodie to Tokyo.

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LISTENING TO THE NEW BEAT

BY JOE HENDERSON

A half-page of dialogue in Hal Higdon's *The Electronic Olympics* reads:

"What if the running machine breaks down?"

"It won't happen," said the doctor. "We watch him too closely. We test him each week. Every move he makes in training is computed in advance... Nothing can go wrong."

"Doesn't that take the sport out of it?"

The doctor shrugged. "I don't decide that. I only program the computer."

"But shouldn't track be a sport and not a business?"

"It's the price one pays for greatness. An Olympic gold medal is worth any price. To win today, an athlete must be perfect."

I'd just read Hal's book. It couldn't have been a worse time to talk with Rich Heywood and test his Sports-Tronix pacing devices. He couldn't have picked a worse character as a guinea pig, or a less objective reporter.

Heywood, a 34-year-old former sprinter, former musician, now coaches track at Las Vegas High School. He calls himself a "gimmicks-gadgets" coach. His best known product is the electronic pacer you see advertised in *RW* and elsewhere. It looks like a sweat band with a single ear muff attached. It is designed to insure smooth rhythmic running, both in training and racing. Heywood got the idea when he went out for marching band to avoid cross-country.

We met at a most improbable place—the Hollywood High School track. Yes, *the* Hollywood—the dream capital. Heywood had gotten up at three that morning to drive over from Las Vegas. Lack of sleep hadn't dulled the pudgy blond's intense personality. He was eager to sell the idea of the device.

In fact, he seemed more eager to sell the *idea* than to make a pile of money from it. "What do you think of people who try to make money from runners?" he asked, knowing we are in the same somewhat uncomfortable position. I didn't answer.

Rich realized he had a tough customer here. I agree with Higdon. Neither of us wants to see unpredictable humanity mechanized out of running; we don't want to feel like toy rabbits going around greyhound tracks at set paces. The Heywood pacer is primarily an intervals-and-track device, and I hadn't run track intervals in six years.

As it turned out, I wasn't a tough customer at all. Anthony Hall, Heywood's star quartermiler, told how the pacer works. His lesson took two minutes. There's nothing complicated about it. Two minutes of instruction and the old interval-hater couldn't wait to slip into the headband and race around the track.

Rich handed me the "Combo" pacer. It has two features. One counts cadence, beeping once (if you're on-pace) every time the left foot touches down. This is a metronome-like operation which traces its ancestry to Heywood's marching band days.

The other feature is a "spacer." It beeps at intervals from five to 13 seconds. If you're using a 440-yard track, you split it into 55-yard segments. Say you're trying for a 64-sec-

ond quarter. Divide the number by eight, eight seconds in this case, and set the pacer at that. Each time it beeps, you should be on a 55-yard marker.

"Here, run a quarter with the stride setting," Heywood said. He didn't bother to go through the computations. They involve figuring stride length, strides per minute, or something of the sort. He chose a random setting.

It was too fast. I had trouble keeping up with the beeps. But the incessant, rhythmic noise made me want to keep up. I didn't notice my breath was coming in gasps, until afterwards. The pace hadn't varied the entire lap.

"The 'spacer' setting is simpler," Rich said. "What do you want to run? How about a 75 (quarter)?"

Not wanting to let on that 75 is quite fast by my LSD standards, I agreed. The first beep came too late. So did the second. A minor competitive spark was set off. I spurted a bit. The next six beeps were right on. It felt good.

"Seventy-five point two," Heywood announced with an I-told-you-so grin. We tried again: 75.1. That was enough. This was supposed to be a demonstration, not an interval workout.

A jogger stopped and looked at the curious-looking device, which is about the size of a large stopwatch and weighs less. "What's this," he asked, "some kind of timer?" Heywood explained, then said, "Want to try it?"

"Ah, no," said the man. "I'm just a jogger. I couldn't go fast enough to keep up with it." Nonsense, Heywood told him. This thing only goes as fast as you want it to go, and you want to go yourself. "It's a servant," he said, "not a master."

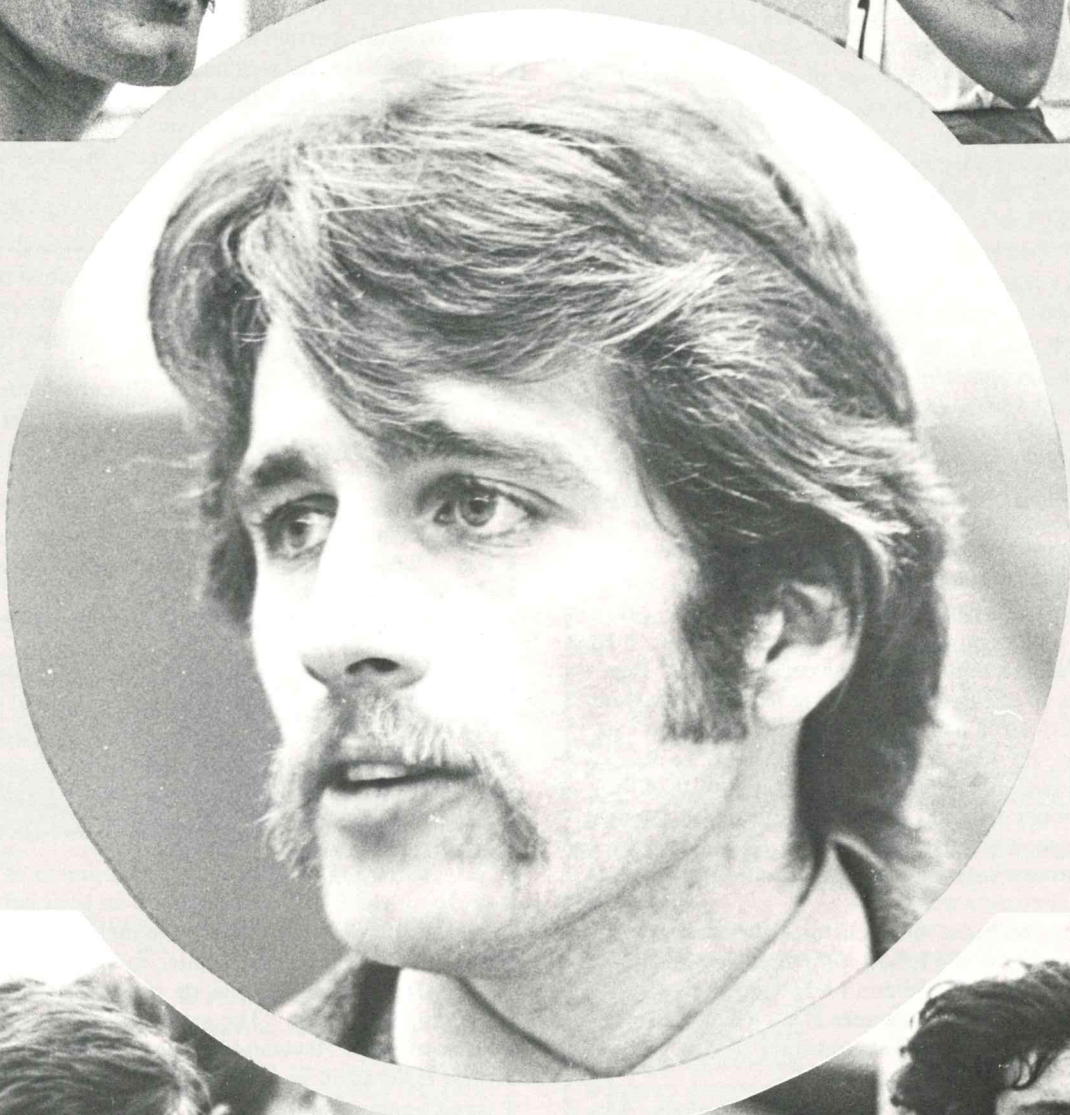
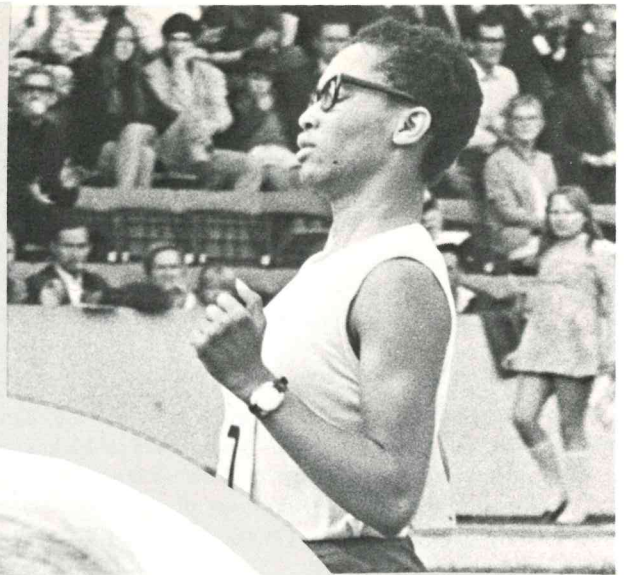
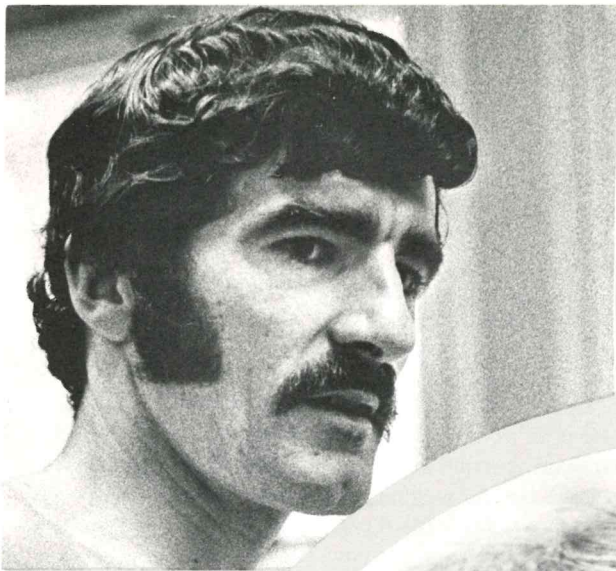
The 57-year-old jogger, who'd never raced but said he was training for a \$500 match race with a friend, relented. He thought he was racing against the beeper instead of running with it. He beat it home by eight seconds.

Heywood described the development of the devices as we drove to where he'd picked me up an hour before. He said they're still evolving, that new models are being perfected, and that they're getting both lighter and cheaper.

The new models include one that's worn on the wrist instead of the head. "The reason we've gone with the headband arrangement," Heywood said as he wheeled his station wagon onto Hollywood Boulevard, "is so we can eventually develop a voice-contact system. That will allow the coach on the sidelines to communicate with the runner on the track."

That is a somewhat promising, somewhat frightening prospect—depending on how the "voice-contact" is used. Another addition to the line in the near future, Heywood indicated, would be a miniature AM radio rigged into the headband. Distance runners might buy that one for the radio alone; forget the beeper.

This isn't meant to be either an endorsement of the pacing devices, or a knock on them. Like any method or gimmick, they're fairly neutral. They can either enhance the sport or detract from it. Running can become more human or more mechanical. Everything depends on who's in charge. In this case, who or what.



"Marty Liquori, still ailing from a heel injury, withdrew from the mile..." (Center, Steve Sutton photo)

"Ralph Doubell, gold medalist in the 1968 Olympic 800, will retire from track. He is still suffering from an achilles tendon injury." (Bottom left, Don Wilkinson photo)

"Marilyn Neufville, world record holder in the women's 400, ruptured an achilles tendon during an indoor meet. Surgery was performed to repair the severed tendon." (Top right, Mark Shearman photo)

"Derek Clayton collapsed in the third lap (of a 10,000-meter race), clutching his left leg. Apparently he had suffered another achilles tendon injury." (Top left)

"Dave Bedford, favoring a sore achilles tendon, was a spectator at the National cross-country championships." (Bottom right, Tony Duffy photo)

THE LEGACY OF ACHILLES

BY JOE HENDERSON

Within the space of a month, running publications reported that five potential Olympic champions were felled—either temporarily or permanently—by the scourge of middle and long distance runners.

As the following series of articles explains, the achilles tendon is the most common source of running miseries. At least one runner in six suffers to some degree with "runner's heel" at some time in his career. It's a persistent, discouraging and all-too-widespread problem.

The achilles is the runner's weakest link. This section suggests ways to keep it from snapping, and to bounce quickly back to your feet when it does act up.

THE WEAKEST LINK

Achilles was a warrior in Homer's *Iliad*. According to the Greek myth, Achilles' mother dunked him in the river Styx when he was a baby. This dunking supposedly made him invulnerable, and apparently had. He raged through battle after battle unscarred.

His mother had made one oversight, though. She had held him by the heel while immersing him in the Styx. The heel didn't get wet. It was his one weakness, and eventually it did him in.

The achilles tendon is appropriately named after him. This is the tendon that links the calf muscle (gastrocnemius) with the heel bone (calcaneus). It lets us walk and run.

In a depressingly high number of cases, however, the achilles also *prevents* runners from running. This tendon is the runner's most vulnerable spot. It's caught in a sort of tug-of-war between the calf trying to pull one way and the heel trying to go the other. When the opposing forces get too powerful, the tendon stretches...or tears...or breaks.

As injuries go, most achilles problems are strictly minor league. The sore spot is no bigger than a pea. In most cases, when sitting and walking there'll be no pain at all.

It only hurts when you run. When running, the trouble this little spot causes is out of all proportion to its size. The problem isn't size but location. The dot of pain is right where

the foot flexes. When the foot can't land and bend properly, the whole running motion is out of whack.

The little injury is like the epicenter of an earthquake. It sends out shock waves that shake the running system to its foundation. This little spot of pain has destroyed far more than its share of running careers.

Runner's World surveyed its readers on their injuries. Fourteen percent admitted to having achilles tendon trouble serious enough to limit or stop their running. That's about one runner in six. Another 6-7% have had unspecified heel and calf troubles, probably related to the achilles.

Achilles tendon injuries aren't only the most common type to strike runners; they're also the most stubborn to treat, and they tend to keep coming back or to become chronic.

British sports physiotherapist Denis Wright has written one of the most definitive accounts available on the causes, symptoms and treatment of achilles tendon injuries. This article is reprinted in *Guide to Distance Running*.

Wright says there are three types or degrees of these injuries: (1) *tendonitis*, an inflammation of the tendon, which is both the most common and the least serious of the three; (2) *partial rupture*, a tearing of tendon fibers, and (3) *complete rupture*, a rare but extremely serious total break in the tendon, requiring immediate surgery.

Wright lists causes and symptoms:

TENDONITIS

Causes—(1) A sudden change in routine (e.g., a change in footwear—flats to spikes; a change in surface—grass to cinders; a change in training—endurance to speed); (2) By ignoring the reaction from a heavy training session, or a competitive effort.

Symptoms—(1) Awareness of pain and stiffness an hour or so following activity, particularly after rest; (2) Little if any detectable swelling; (3) Pain on contraction and stretching of the calf muscles, more severe on stretch and with knee extended; (4) Tenderness to squeezing pressure, applied at the tendon's narrowest point; (5) Walking possible, running difficult, sprinting impossible.

PARTIAL RUPTURE

Causes—(1) A weakness due to long-standing tendonitis; (2) A sudden stretching influence applied while the calf muscles are contracting vigorously.

Symptoms—(1) onset of pain—sudden, and during activity; (2) Obvious swelling, sometimes severe enough to disguise the contour of the tendon, and apparent within an hour; (3) Pain on contraction, and much more severe on stretch; (4) Hypersensitivity to squeezing pressure; (5) Walking is difficult, running other than perhaps a jog is impossible.

COMPLETE RUPTURE

Causes—(1) A direct blow to the tense tendon; (2) A logical sequence following tendonitis and partial rupture; (3) Those likely to cause a partial rupture.

Symptoms—They're so obvious that Wright doesn't even bother to list them. The tendon has broken, and the heel has come unhooked from the calf muscle. The leg is immediately rendered useless and will remain that way until a surgeon has repaired the break.

Since we don't have the magic waters of the river Styx to turn to, we have to look for other, less exotic solutions.

● **"Normal" treatments**—massage, ultra-sound, heat and whirlpool, wrapping and taping—are of doubtful value, if not downright harmful. Manipulations and heat may possibly aggravate injury instead of curing it—for reasons we'll get to later.

● **Drugs**—cortisone, butazolidine and steroids—are swallowed by and injected into some runners. Fred Grace, the 74-year-old advertisement for healthy living, says, "When you take drugs, you have to recover twice. Once from the injury and once more from the medicine."

● **Surgery**—This is a final, desperation move that's expensive, risky and at least temporarily disabling. Randy Matson, the shot putting champion, reflects runner's thinking when he describes a wrist injury. "The doctor put me through a series of test," Randy says, "and he couldn't determine exactly what was wrong... He wanted to take me in for surgery. When the man said 'surgery,' my wrist started to feel better immediately. I wasn't even slightly interested in surgery."

There are simpler, cheaper, more effective and more natural treatments than anything the doctor has ordered so far. They're based on three principles: (1) get the runner back on his feet as soon as possible—better yet, keep him there; (2) work slowly back into full action, and (3) prevent recurrence.

Leonard Hibbert is an older English runner. He apparently is a zoologist or naturalist of some sort, though that wasn't explained in a short letter to the editor that completely changed some thinking on tendon injuries.

Hibbert wrote, "I have observed that deer and other creatures, who could not rest as this meant death from starvation or at the hands of their enemies, used to stand for as long as possible in running water when they were limping."

His observation is simple genius. This one sentence has at least three basic truths about running injuries.

(1) That animals in nature have to keep moving to keep living, and that domesticated man is the only animal who can afford to stop for long periods. Or can he? The choice isn't life or death any more. An addicted runner won't die without his daily run. But he'll go through severe withdrawal symptoms.

(2) That pain is a natural protective mechanism which should not be feared or ignored. It guards against further damage and triggers the search for relief from the pain.

(3) That the best possible source of relief is clear, cold water. If the cold treatment is good enough for a deer, a runner of runners, it's good enough for us. (Remember Achilles, too. If his mother had dipped him all the way in the river Styx, he would have avoided a lot of trouble.)

Rehabilitation starts as soon as you're injured. Get active again right away, whether this means running, walking, bicycling or wheel-chairing. Activity, yes. Heavy work, no. (Heavy work is what got you in trouble in the first place.) And definitely no time-table. Tendons take their own sweet time about recovering. It may take a week or two; it may take a year. You never know. The tendon seems to have a mind of its own.

The key to recovery is exercise that the tendon can tolerate. Pain is your protection and warning signal.

The idea is to get back to running. If you can walk, you can probably run. Run if you can, but within certain limits. It has to be short and slow at first. There's no choice. Don't try to be a hero and push the distance and pace. You'll end up worse off than you are now.

Run what you can at a pace which allows near-normal

RUNNING THROUGH

I was 12 then, and didn't know an achilles tendon from a clothesline rope. All I knew was basketball. I lived it. I literally spent up to eight hours a day playing basketball.

All this running and jumping, mostly outdoors on hard courts and in poor shoes never made me much of a basketball player. What it did was create a walnut-sized lump on my right heel. A gentle touch sent a shock wave up my leg (and still does).

This knot got so painful my mother took me to the doctor. He said, "Get a new pair of shoes and quit playing basketball until it gets well."

I quit for one day. Not playing basketball was more painful than the heel had ever been. That began a long history of ignoring doctors' advice. Now, 15 years and many injuries later, the "treatment" is the same. Only the sport is different.

Any solution to the achilles dilemma has to take this kind of thinking into account. Runners are foolishly persistent. No doctor can keep a good runner down as long as his legs will support him.

We ignore the doctors' first advice—rest. We might as well ignore the other tricks in his bag.

form. If you're limping severely, you're inviting all kinds of sympathetic injuries—to ankles, arches, the other achilles, and particularly the knees. When you run, read your pain. If it gradually diminishes, you're on the right path. You aren't hurting yourself. But if it builds, stop! Damage may be done.

As long as you run fairly regularly, four days a week or so, and don't gain any weight, a few slow miles maintain condition surprisingly well.

HEEL ON ICE

Hibbert copied the deer-cure, sort of. He wrote, "When I first had tendon trouble in 1934, I tried the deer's way, and hung my foot under a cold tap for periods of a quarter-hour at a time. And never stopped my training, although the pain for the first mile or so was severe. In a month, I was racing regularly and well. Some years later, I injured the same tendon again. Once more I used the same successful treatment."

Somehow the idea of sitting on the edge of the bathtub, foot dangling under the tap, didn't make as idyllic a picture as the deer in the creek. But the next time I hurt myself (there's always a next time), I tried it. Two days at the cold tub convinced me that I didn't like this treatment.

I graduated to a bucket of ice water. This was a cold, wet mess, too. The shock of plunging my hot foot into cold water was more than I could face at 7:30 each morning. Then I had to sit there, unmoving, and suffer as long as I could stand it. I gave up after two days, deciding to treat this tendon injury just like all the others—slog through it.

After a month, and little improvement, Roy Benson came to dinner. Roy is an assistant track coach at the University of Florida. He was on a leave of absence to coach for a year in the Philippines.

"Are you using the cold treatment?" he asked.

"Oh, you mean the cold water? No, I started to, but quit."

"No, I mean ice. We have used ice on all kinds of injuries, with amazing results. Whenever a man at Florida complained of any pain, we slapped on the ice. It's our cure-all. I sound like a salesman when I talk about it. But I think it's so great I want to twist everyone's arm and make him use it."

I didn't really ask Roy *why* it worked, but he told me his theory, anyway. "The best explanation I've heard is that the cold on the surface sets up kind of a dam which causes the blood to rush in and circulate faster behind it, therefore keeping the injured area cleaned out and protecting it from swelling."

I was still skeptical, and didn't rush to the ice box for another month. John Romero, a marathoner from Nevada, then called.

"I'd been having achilles trouble for months," he said. "Finally, a friend from San Francisco, Pax Beale, told me about his treatment. When he came back from his runs, he put his foot up and iced it. I tried it. In six weeks, all my pain was gone. A couple of months later, I ran within seconds of my best marathon."

The next day, I started cracking open the ice-cube tray every morning after running. That's the hardest part of this treatment: putting a half-dozen cubes in a sweat sock and tying it around my ankle so the ice covered the sore spot. Then I'd sit down and write and read the paper. I was free to move around. I'd forget about the ice until I noticed a puddle of water around my foot.

Maybe it was just coincidence. Maybe it was the power of suggestion. But after less than two weeks on ice, I was running for hours without a limp (after the first mile or so, anyway). Two weeks later, after months of limited training, I was racing as well as ever.

Out of any representative group of runners, such as this one in the Trail's End marathon, one in six can expect to encounter achilles tendon misery. (Sharran Herriot photo)



PEDALING A CURE

Most runners are lucky. Their injuries aren't serious enough to prevent running. Alex Ratelle wasn't so lucky. Ratelle is a medical doctor and marathoner from Minneapolis. In late 1970, he partially severed an achilles tendon. His case tells a lot. It says for one thing that even doctors aren't immune. But Alex also prescribed a successful cure for himself that others in his predicament might copy.

He couldn't run. He immediately started bicycling. (Even during severe achilles sieges, pedaling is painless, because there's no pounding and little stretching.) Ratelle took out his frustration on his bicycle. He went up to 200 miles a week that winter on his bike. His running mileage was insignificant.

By Boston marathon time in 1971, he'd worked about 50 miles of running back into his weekly schedule. He cycled, too. At Boston, he ran 2:56—within minutes of his best. I saw Alex in July. He was bubbling over with enthusiasm. He'd just finished the US Masters marathon in 2:48.

The doctor's achilles was satisfactorily healed, but he still thought it wise to limit his on-foot mileage to 50 a week. He was still doing three times that much on his bike.

Dr. Ratelle's running-to-biking ration pretty closely matches Kenneth Cooper's recommendations. In *Aerobics*, as best I can figure it, Dr. Cooper says it takes about three miles on a bicycle to get the same training effect as a mile of running. There are qualifications to this formula, but you get the rough idea.

Watch, though, for a side effect that's not entirely unpleasant but still creates obvious problems in running. A New York runner, Keith Hartman, hurt his foot. He rode a bicycle while it was mending. The foot healed all right. But by the time it did, he was firmly hooked on the new sport. He was competing. He was already one of the top half-dozen riders in the East, and had a distant shot at the Olympic team.

Take care if you want to stay a runner. Bicycling is a good cure. But it's also a fine, exciting sport in its own right, waiting to snap up new recruits.

(heel bone) was rubbing against the interior side of the achilles tendon and cutting through it. On June 16, 1970, he went in and found that the calcaneus, rather than being reasonably rounded on its upper outer edge, was squarish and sharp and had cut through 40% of the tendon. He removed a one-half-inch wedge of bone from the calcaneus and repaired the severed tendon."

Two months later, Bob began jogging again.

Later in the year, Des O'Neill realized the same thing was wrong with him. "I had the same sort of problem as Bob," Des said, "although in both feet and with rather less tendon damage.

"The heel condition itself, so far as I have been able to discover, is an initial irregularity in the surface of the groove of the heel in which the achilles tendon runs. The tendon in the action of running rubs, which causes the formation of calcium deposits (bone spurs) on the little bumps. These grow bigger and worsen the problem. The tendon may begin to cut a little, and a bursae will probably form around the irritation. There will be localized and very sharp tenderness at the point of the heel. Major tendon damage may occur, and may require surgical repair—quite aside from work on the bone."

O'Neill checked into the hospital a week before Christmas 1970. The doctor operated "on the understanding that if the left and worst had to be casted and the tendon sewn back together, he was to attempt only one heel."

The doctor found only 10% of the left tendon had been severed, and he decided against immobilizing the foot in a cast. "He therefore proceeded to the right heel as well," Des said. "The whole thing took about 45 minutes, during which he opened each heel, working from the back inside. He flipped the tendon out of the insertion, did a little minor repair work there, and then resurfaced the insertion, removing a piece of bone from each heel about 1 1/2 inches long."

O'Neill started running again two months later.

It has been nearly two years now since Carman's operation and well over a year since O'Neill's. Was the surgery successful?

Well, both runners are competing actively again, though somewhat slower than before. Both have run marathons of around three hours. Carman has competed in a 24-hour relay, a severe stop-and-go test of tendons.

O'Neill, an *RW* correspondent, was asked in March to assess their recovery. He wrote:

"In reply to your inquiry regarding recovery from these achilles tendon prunings: Bob Carman feels that his will never be quite the same again, since it went so long without the surgery it needed—too much scar tissue. He does, however, feel that his recovery has been all that he expected, he is running again (although on reduced mileage), and is even looking forward to having his other achilles pruned in the future.

"As for myself, the right one is completely recovered, and there have been no further problems. That was the least torn one. The left is still a bit of a problem, although I cannot say that it has very much to do with the tendon one way or another. It isn't a localized pain, just a feeling that the left heel is unstable and ready to slip off the inside edge of the shoe. Over the course of a long run it begins to feel as though the ankle were slightly sprained, and the following day I usually have a tight lower left calf. I seem to do better, predictably, with wide-heeled shoes.

"But I run, and am getting back on mileage again. I suppose that you can color me satisfied."

UNDER THE KNIFE

Sometimes heel and tendon damage progresses so far that nothing short of surgery will correct it. Two runners from Santa Barbara, Calif., have gone this route and have opened new hope for achilles sufferers.

Bob Carman went through it first. He wrote of his problem in a 1970 *RW*: "Since 1966 or so, I have been unable even to jog without pain in the tendon. All the standard and non-standard treatments were applied to no avail... For the past four years, I have not run a step without pain.

"The doctor's theory was that the right calcaneus

RUNNING PROBLEMS

Over 250 subscribers attempted to answer the two running problems from last issue's "Striding Along" column. Ninety-eight of these people answered both questions correctly and 108 of them had at least one of them correct.

Because of this big response, "Running Problems" will now become a regular feature of the magazine. Send solutions to Running Problems, Box 366, Mountain View, Calif. 94040.

FIND THE ANSWERS...

PROBLEM ONE:

The mighty athletic nation of Upper Fig Newton had trouble deciding how to march in the opening ceremony of the Olympic Games. When assembled in rows of two, the team had one man left over. Walking three abreast, one man was left over. Placed four in a row, there was again one odd man. Five abreast, the same lonely straggler remained. *How many athletes were on the Upper Fig Newton Olympic team?*

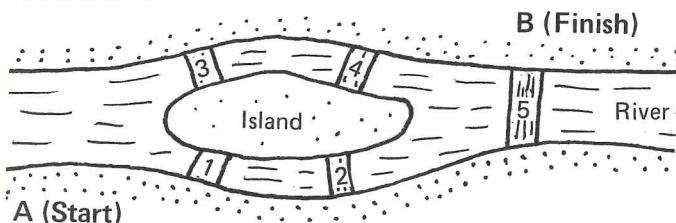
—BY BOB CARMAN

PROBLEM TWO:

Two runners, Ron and Don, set out running at constant speed at the same instant from their respective homes. Ron runs to Don's house and Don runs to Ron's house along the same route. When they pass each other they glance at their watches. Ten minutes after they pass, Don finishes. Ron finishes 30 minutes after they pass. *How much faster is Don than Ron?*

—BY BOB CARMAN

PROBLEM THREE:



The map shows an island in the middle of a river with five bridges. On his daily run, Jack Jog starts at A and runs to B. He wants to take a route that crosses every bridge once and only once. For variety he would like to use a different route every day. *How many possible different routes can he take? List all routes i.e. 12534.*

—BY BOB CARMAN

PROBLEM FOUR:

Wilberforce Fitzduddlebury and his sister, Fiona, live, as most people know, right at the top of Fitzduddle Mountain. Wilberforce has built something of a reputation as a mountain runner, while his sister prefers to let a horse do the work. One day, at the foot of the mountain, Fiona challenged her brother thus:

"I say Willie, why don't you run up the road to the house and I'll race you on my horse."

"You expect me to race a horse? Fi on that, Fiona!" quoth he.

"But you can use the road," said his sister, and I'll take Dobbin straight up the side of the mountain."

"Righto!" said Wilberforce, for the road was good and had a constant grade of one in seven.

The road spiralled around the mountain and was 21 miles 374 yards long. Willie could run this in 3 hours and 20 minutes. His sister's horse found it tough going and averaged only 70 feet of climbing a minute.

Who reached the top first and how long did the winner have to wait for the second finisher?

—BY RAY WILL

CORRECT SOLUTIONS

The correct answers to the two problems in the March issue are: The first problem was a little tricky and so we accepted two answers — if you used 26.2 miles the answer would be 48.03 — if you used 26 miles 385 yards then the answer would be 48.067 miles. On the second problem the answer was a clear cut 13.033 miles per hour.

- | | |
|-------------------------|------------------------|
| Wilbur Arnold (Colo) | Douglas Linder (Ia) |
| Roger Anderson (Tex) | Len Long (Wash) |
| John Babington (RI) | Timothy Marr (Mass) |
| David Baxter (Cal) | Robert Marsh (Cal) |
| Jay Birmingham (Ohio) | Donald McCune (La) |
| Greg Bohlmann (Ind) | Denny Mertz (Mo) |
| Peter Borden (Mass) | Rich Nehring (DC) |
| Wayne Comer (Tex) | John Ninnis (Cal) |
| Robert Cooley (Cal) | James Oehring (Alaska) |
| David Diller (Ohio) | Lawrence Olsen (Mass) |
| Wes Dutton (Kans) | Bob Osborne (NY) |
| Peter Elliott (Ill) | Ken Parker (Can) |
| Garry Estle | David Platenga (Ind) |
| Bob Faetz (Ill) | Jack Pottle (Colo) |
| Bill Falk (Conn) | Tom Reichard (Mo) |
| Pete Farwell (Ill) | Leo Richard (NH) |
| William Fasula (NJ) | Rick Richardson (Ark) |
| Richard Frank (NY) | James Robertson (Cal) |
| Paul Frederick (NM) | James Rooney (NY) |
| Gary Fredrickson (Wash) | Thomas Rosenau (Wash) |
| Donald Fridsahl (Cal) | Richard Rowe (Iran) |
| James Friedman (RI) | Foster Rucker (Ohio) |
| Bernie Gay (Colo) | Dale Saylor (Va) |
| Bernard Gerberg (Pa) | William Scott (Cal) |
| Charles Gibson (Tenn) | Charles Seekins (Cal) |
| Bill Godfrey (Va) | Sam Simakis (Cal) |
| Frederick Gordon (NY) | Jim Smith (Mass) |
| Gene Gregerson (Minn) | Socrates Sotir (Mass) |
| Jim Gusek (Colo) | Mark Steinberg (Ia) |
| Bernard Hamrock (Ohio) | Mark Stender (Ohio) |
| Sam Harting (Tex) | Peter Stipe (Mass) |
| Arlo Hendrickson (Va) | John Storm (Cal) |
| Ken Henry (Wash) | Bob Swank (Ind) |
| Roger Hill (Ill) | Carol Swenson (Kans) |
| Rick Hudson (Ia) | John Tasker (Ia) |
| Bob Ingalls (Wash) | Mike Thackeray (SA) |
| Roger Jacobs (Ind) | Ray Vasta (Cal) |
| Paul Jarrett (Fla) | Dick Vile (Mich) |
| Edward Johanson (NY) | Donald Vining (NY) |
| Roger Johnson (Fla) | John Wachtel (Ill) |
| Ronald Johnson (Md) | Gordon Warnica (Can) |
| Scott Jordan (NM) | Jim Webster (Cal) |
| Julius Karabel (Cal) | Robert Weet (Pa) |
| Joseph Kollas (Ore) | James Weil (Cal) |
| Jim Kramer (Md) | Ed Whitaker (Ind) |
| Richard Lamb (DC) | Ray Will (Can) |
| Kevin Leonard (Mass) | Donald Wojtyna (Conn) |
| Dennis Letl (Cal) | Vince Wood (Cal) |
| David Levick (SA) | Ron Zappen (Cal) |

HOW ROAD COURSES MEASURE UP

A RUNNER'S WORLD EDITORIAL

Everyone apparently was happy. The story said the winner suddenly had joined the "marathoning elite...he ran a dream race," and that the runner-up had "improved drastically as well." Times all the way down were excellent.

Talmage Morrison wasn't happy. The head of the Dallas Cross-Country Club had run *too* fast and was suspicious.

"I knew my time was not in accordance with my speed," he said. "The course has to be short."

Morrison asked the race director about the measurement method. The director took offense at the question. "He really blew his cork," Morrison said later. "He indicated that I was 'just an amateur' and that I had no business hinting that he was not a sufficient meet director, etc., etc."

Talmage was hinting at that all. He realizes that no meet director would intentionally chop distance from his course. But he knows, too, from promoting a marathon himself (as well as running them throughout the country) that measuring is a critical and still unappreciated art.

When Morrison persisted in his questioning, he learned that the course had been measured with several automobiles, and that a median figure was accepted. The problem, as AAU course-checking expert Ted Corbitt has said, is that automobiles are notoriously inaccurate. They almost invariably turn up routes that are as much as a half-mile short.

Morrison, the so-called "amateur", knows the false joys and false hopes that an inaccurate course raises. He went to the trouble last year of insuring that his White Rock marathon in Dallas was smack on 26 miles 385 yards.

More directors all the time are making this effort. Ted Corbitt's national AAU standards committee certifies the accuracy of road courses. Ted says there are now about 45 "certified" marathons in the United States, and that he has received at least 40 inquiries in recent months about measurement and certification methods. Six courses were approved in the month of February alone. So the methods apparently aren't that tough.

But these aren't the problems. It's the other half of the country's marathons—the uncertified ones—that are the cause of argument, confusion, and the deception of runners who think they've gone all the way and quote times as if they're legitimate.

Many of them are legitimate. We're not saying all uncertified courses are short. That wouldn't be fair to painstaking race directors who simply haven't gone through the formality of AAU certification.

The certification question has become more crucial than ever this year, though. The Olympic Trials Committee in Eugene said in March that it wouldn't accept any qualifying times from uncertified routes. In their eyes, these times don't exist.

In one sweep of the official hand, at least 16 marathoners who thought they'd safely made the Trials were eliminated.

If they want to run at Eugene in July, they have to invest in another sub-2:30 race—this time on an accepted course.

This move seems a little heartless at first. Runners who'd gone the distance in good faith, thinking they had qualified, learned their races had only been for the exercise. The timing of the announcement—over six months into the qualifying period—hadn't been the best.

On the other hand, efforts like this are bound to boost the number of certified courses. This is the kind of muscle needed to push officials out on the course with a steel tape and a calibrated bicycle revolution counter.

(This last sentence refers to the measuring method recommended by Ted Corbitt. It is the simplest, fastest, and one of the most exact. Corbitt sells the counters at cost—costs varying from \$14 to \$24, according to the quantity Ted purchases. His address is 5240 Broadway 15C, New York, N.Y. 10463.)

There's another side to the story, too. Certain people in charge of races are freely admitting their errors and are correcting them.

(The course in Texas that produced the incident that started this article was remeasured after the fact. It did indeed come up short. But the encouraging sign was that officials took the trouble to check it.)

Tom Ragsdale is one of the men working with the Olympic Trials. (He directed the AAU Championship marathon last summer.) Tom called to say that another course he helped design and measure—the one for the All-Comers race in October in which four men broke 2:30 and Ona Dobratz was under three hours—was some 400 yards short. He's now in the process of certifying the revised route.

Bill Selvin's course for the World Masters race appears okay. However, Dave White cut it somewhat short (due to an official's error) when he ran 2:17:15. Director Selvin dutifully reported it, noting, "We later found he was 144 yards 2 feet short." That sounds exacting enough.

Not even the Boston course is above scrutiny. John Booras, Larry and Sara Mae Berman measured it in 1967, and their checking resulted in certification. In a story on the course that appears in the new *Boston Marathon* booklet, Rick Levy writes that they found it to be 26.27 miles; the official distance is 26.22. At least this one is *over*-distance.

"This method is generally regarded as having an accuracy of one yard per mile or better," says Levy. "So when this team found the course 90 yards long (0.05 mile), this meant it very likely is indeed between 60 and 120 yards long. This is apparently regarded as being within acceptable tolerances. It's only one-fifth of 1% off. Still, that's 15 seconds at 5:00 pace, 24 seconds at 8:00 pace."

And let's face it, 15-24 seconds can mean the difference between under and over 2:08:33.6, just below and just above three hours, or the low or high side of 3:30. Most runners are putting a lot of stock in this kind of thing. That's reason enough for continuing this accuracy crusade. It shouldn't be limited to marathons, but they are a start.

MEDICAL ADVICE

Athletes are invited to submit their SOLUTIONS to medical problems, as well as asking the doctor questions about them. Leading off this column are two answers that runners found on their own.

CHRONIC ANEMIA

I seem to be chronically anemic, but can remedy the situation with daily iron supplements and an emphasis on iron/protein in my diet. I found a direct correlation between my running performances and my hemoglobin count. While doing about the same amount of training, all my best performances came when my hemoglobin was normal. When the hemoglobin count dropped to 48%, my running times slowed markedly—up to a minute per mile in races a mile to 13 miles. Returning to iron pills, in one week the hemoglobin count rose 10% and I could feel a pronounced difference. My legs in particular lost their feeling of heaviness.

I would suggest that any female athlete tending towards anemia should take iron supplements and have her blood tested regularly. Symptoms to watch for would be a general tired feeling, an unaccountable drop in performance, "dead" legs and pale complexion. (*Janet Newman, Eugene, Ore.*)

LIFTING WEIGHTS FOR KNEE PROBLEMS

I have had problems with my knees several times. One or both became so sore it hurt to walk, let alone run. Doctors and coaches said to ease back or rest. However, these solutions did not work, and after a few days or weeks I forced myself to start again. And in a week or so the soreness slowly went away.

Last September, I had the problem again. This time it was worse than ever before. A half-mile limp was the maximum. After a five-week layoff, under doctor's orders, the problem was no better. So I decided on an all-or-nothing cure. I began doing squats with a 100-pound barbell (easy to handle since I weigh 170-175). I would do 20-30 squats at a time, before and after running, making sure to get about 100 squats a day. I quit the squats after 10 days, apparently cured.

The problem developed again this March, but it was solved again with this squat treatment. In fact, I cured it with squats during my heaviest week of training in eight months. (*Eric Lewis, Portland, Ore.*)

HEPATITIS

Q: *A recent blood test showed that I had picked up hepatitis and still have 1.7% of bilirubin in my blood. Doctors tell me 1% is normal and 2.5% is serious. One doctor has told me I should wait to resume training until my blood returns to normal, because I may cause liver damage and therefore could spend the rest of my days suffering from a chronic state of hepatitis. Another doctor, however, said I could train at a moderate clip 10-15 miles per day. What is your opinion?* (Sam Bair, Scotsdale, Pa.)

A: The high bilirubin, especially without liver damage tests, could be due to a variety of things. For one thing, it might be normal for you (some people have a congenitally high bilirubin). It could be due to anemia, gall bladder disease or infectious mononucleosis.

The normal course of hepatitis is four to six weeks, and the main object is to return to your pre-illness weight. In my experience, only those who lost considerable amounts

BY GEORGE SHEEHAN, M.D.

of weight and couldn't regain it remained symptomatic. Chronic hepatitis is a very rare condition. We saw little if any in the service, although there were, I think, 35,000 cases of acute hepatitis in Italy alone. Recent Army studies showed diet and mild activity had no ill effect on recovery.

In summary, I would say if you are back to your normal weight, I see no reason why you couldn't resume training, doing medium distance on an every-other-day basis. If symptoms recur (nothing bad will be going on inside if you feel right), get a liver profile and a mono test.

ASTHMA

Q: *My son suffers from asthma occasionally, and claims that he will never be able to run because of it. Will running aggravate the condition or improve it?* (Henry Ames, Hamilton Air Force Base, Calif.)

A: We know Jim Ryun is potentially asthmatic, and can see that this condition is compatible with world record performance. I personally know a local runner whose asthma was bad enough to hospitalize him several times while in grammar school. Yet he turned to running in high school and achieved all-state honors in cross-country.

Asthma, however, can be aggravated in certain areas and in certain running seasons. Witness Ryun's difficulties in Eugene, Ore. Some runners have troubles during cross-country season because of specific pollens; some indoors because of dusts; some in the spring. Cold air can also cause broncho-constriction.

Training will always increase cardio-pulmonary efficiency, so if the runner can run despite his allergies, his overall physical condition will have to improve. Then, too, his degree of resistance even to his basic allergies may well improve. Overtraining, however, may cause him to lose his immunity.

Use of antihistamines prior to workouts may be helpful, but they may cause some sluggishness. Establishment of specific allergens is important—first, to help avoid them and, second, to desensitize the patient.

Curiously, cycling seems to induce less discomfort than running and swimming, and should be investigated if running is found to be difficult.

SLEEPLESSNESS

Q: *Recently I increased my mileage and also my pace. I got to where I couldn't sleep properly. I would wake up at 1:30 or 2:00 a.m., and couldn't go back to sleep. My resistance dropped, and I got a runny nose that threatened to become a bad cold. What would you advise?* (Jim Butler, Newalla, Okla.)

A: You are overtrained. The mileage has put you in the exhaustion phase of the stress reaction. Depression and irritability, I am coming to find out, are frequently experienced in this exhaustion period. Your insomnia is also a sure sign that the increasing load of your training is breaking you down.

The "depression" insomnia is typically the type you describe. The runner usually gets to sleep easily, but then awakens during the night and may have difficulty getting back to sleep. Apparently your runny nose is also a warning that you are overtraining. I would cut back your distance and skip one or two days a week completely until you feel better.

R.W. 24-HOUR RELAY

The little people of distance running are going to be circling the track like crazy on the June 9-11 weekend to help the big people who'll be running at Munich.

As announced last issue, the *Runner's World* 24-hour relay has a special mission that weekend. It will be an Olympic fund-raising race. Individuals and teams are encouraged to line up sponsors, pledged to paying either a flat sum or a set fee per mile covered.

Considering the fact that last year dozens of teams ran thousands of miles, the relays around the country could raise a considerable sum of money. One relay alone had over 30 teams and accounted for over 6000 miles of running in a day's time.

The National 24-Hour Relay Weekend is shaping up well. By mid-April, 13 race directors had confirmed they would hold relays on June 9-11. Others have expressed an interest. (The confirmed sites are listed in the ad on the next page.)

Teams are welcome to run at these sites, or they are free to organize their own events. If you're unable to run on the "National" weekend, you may have special fund-raising attempts any other time before Aug. 1.

If a relay is planned, please write to *Runner's World* for special forms and instructions. On any relay matter, contact Bob Anderson, P.O. Box 366, Mountain View, Calif. 94040. (Phone AC 415 969-9700.)

Note that non-money-making relays can be run anywhere, any time of the year. Summer has become the big relaying season, but many results have already come in this year.

Current leaders are Patrick Henry High School of San Diego with 254 miles 611 yards, and Malone College of Ohio with 251 miles 1233 yards.

Another significant race in California produced four records by undermanned teams. A six-runner group from Camden High School went 233 miles 1320 yards—nearly 40 miles per man. A two-man team reached 100 miles.

RELAY RULES

The relay has been standardized and explicit rules set up for good reason. We want to be able to compare teams accurately, even though they're running at different times and places. It's important that the following rules be followed to the letter.

- Any group of runners may form teams, with a minimum of two and maximum of 10 runners.
- Decide on a team name, and submit it along with total mileage you cover in the 24-hour period.
- Keep the same order of running throughout the relay.
- The relay must be run on a 440-yard track.
- Each person must run exactly one mile each time it is his turn to run. (If a runner drops out during his mile, then none of that mile counts, he is out of the relay and the next man starts his mile.)
- Only the original runners can run. No substitutes!
- If a man drops out (either missing his turn or quitting during his mile), then he is out for good. But the team may continue without him.
- Only completed individual miles count towards the team's total (except at the end of the 24-hour period, when exact yardage of the last partial mile is measured).
- Each team must carry a baton at all times, and it must be handed off within a reasonable distance of the starting line.
- A non-competitor (not necessarily the same one all the time) must be on hand at all times recording mileage.
- A team can stop at any time, but of course the clock goes on. And since the objective is to run as many miles as possible within the 24-hour period, it is wise to keep going.

RELAY RECORDS

TYPE	MILEAGE	TEAM (STATE)	YR.
World	295 miles 269 yards	Olympic Camp (Wash)	'70
College	277 miles 896 yards	Furman University (SC)	'71
Club	287 miles 392 yards	Sale Harriers (England)	'71
H.S.	270 miles 1217 yards	Dos Pueblos (Calif)	'71
Over-40	259 miles 108 yards	Seniors T.C. (Calif)	'71
Women	206 miles 1434 yards	Oregon T.C. (Ore)	'70
10 men	295 miles 269 yards	Olympic Camp (Wash)	'70
9 men	246 miles 1615 yards	Lorain County RR (Ohio)	'71
8 men	258 miles 842 yards	New Canaan H.S. (Conn)	'71
7 men	208 miles 841 yards	Sunnyvale H.S. (Calif)	'72
6 men	233 miles 1320 yards	Camden H.S. (Calif)	'72
5 men	164 miles 1606 yards	Chicago Track Club (Ill)	'70
4 men	139 miles 0 yards	Sunnyvale H.S. (Calif)	'72
3 men	110 miles 0 yards	Green River College (Wa)	'71
2 men	100 miles 0 yards	Sunnyvale H.S. (Calif)	'72

Start of the recent California 24-hour relay which produced three records—including 233 miles by a six-man team.



TAKE PART IN OUR NATIONAL 24-HOUR RELAY WEEKEND

JUNE 9-10-11

. . . and help our Olympic Team

This year the 24-Hour Relay takes on another purpose. We are raising money for our Olympic Team competing in Munich. With this in mind, we contacted many people about holding relays and the following are confirmed sites. We are sure many other relays will be held and we are encouraging this. But please contact us in advance. And we do suggest that you contact the director in advance so that he can give you the necessary forms to seek sponsors for your team.

Now you do not have to have sponsors to run in the relay, but since the whole idea is to raise money we sincerely hope you will take the time to find some. It works like a "walkathon." We will supply you with a sheet which you will take around to people you think would be interested in donating money. They may want to donate one cent per mile or \$10.00 or more per mile. Make sure you do tell them about what your team can run—like 250 miles. Then after your relay, you will go around and collect the money and turn it in to your meet director, who in turn will mail it to us. We will forward all returns to the Olympic Office in New York.

Let's raise a whole lot of money for our Olympic Team and have fun at the same time during the relay. If you are interested in staging a relay, please contact Runner's World, Attn: Bob Anderson, Box 366, Mountain View, Calif. 94040 (415) 969-9700.

JUNE 9-10

- **Bacyrus, Ohio**

George Guins
412 Woodlawn Ave.
Bacyrus, Ohio

- **Cincinnati, Ohio**

Mike Boylan
4320 Vine
Cincinnati, Ohio 45217

- **Newark, Delaware**

(Newark H.S., 7:00 p.m.)
William Caldwell
12A Wharton Dr., Apt. 1
Newark, Del. 19711

- **Charlotte, North Carolina**

Bill Crowell
2400 Westfield Rd.
Charlotte, N. C. 28207

- **Winchester, Virginia**

(Recreation Park, 7:00 p.m.)
Bill Pike
James Wood High School
1313 Amherst St.
Winchester, Va. 22601

- **San Jose, California**

(San Jose State College, 7:30 p.m.)
Runner's World
Attn: Bob Anderson
P.O. Box 366
Mountain View, Calif. 94040

- **Sylvania, Ohio**

(Sylvania High School)
Sandy Turner
4704 McCord
Sylvania, Ohio 43560

- **Placentia, California**

(Valencia High School, 7:00 p.m.)
Don Chadez
19232 Orangethorpe
Anaheim, Calif. 92806

JUNE 10-11

- **Salt Lake City, Utah**

(Highland High School, 7:00 p.m.)
Ben Peterson
1054 East 8600 South
Sandy, Utah 84070

- **Baltimore, Maryland**

Les Kinion
1363 Halstead Rd.
Baltimore, Md. 21234

- **Broken Arrow, Oklahoma**

Larry Aduddell
1849 North Louisville
Tulsa, Okla. 74115

- **Lock Haven, Pennsylvania**

(Lock Haven State College)
Lloyd M. Peters
38 Susquehanna Ave.
Lock Haven, Pa. 17745

- **Northwest Indiana**

Steve Kearney
1202-9 Jefferson
Chesterton, Ind. 46304

JUNE 17-18

- **Ferguson, Missouri**

Carl Muckler
2680 Countryside Dr.
Florissant, Mo. 63033

SEE YOU AT THE RELAYS

READERS' COMMENTS

THE DEAD DON'T ANSWER

I agree that there is probably some protection against cancer ("Facts on Cancer Cure," March 1972) in distance runners—not from the high oxygen levels in the tissues, however, but (because) runners avoid carcinogens (the agents that cause cancer). Runners don't smoke, and have little or no malignancy arising in the lungs, throat, mouth, etc. Runners eat a diet of "health foods" which is more bulky than the usual "refined foods" diet. Diets of this kind seem to protect against colon cancer. So runners do have some cancer protection.

However, they live longer, and each year adds a higher cancer risk. They "live long enough to get cancer." Endurance activities can add seven years to life expectancy; that is about 10%. People at 77 have higher cancer tendency than people at 70. So death certificates will reflect the longer survival and the higher incidence of cancer—since they avoided the causes of death at an earlier age.

Dr. van Aaken's results were based on questionnaires sent to living runners. This is less convincing than statistics based on death certificates. Men with heart disease can become runners, so they would increase this disease in the study. But cancer takes you out of running if it can't be cured, so it would lower this disease.

*Thomas Bassler, M.D.
Palos Verdes Peninsula, Calif.*

BRITISH "AMATEURISM"

It may be time for someone to take on the subject of the real status of amateurism in Britain ("Spotlight on England and Europe," March 1972). For long years we have been assured, by the British, of their own simon-pure amateurism, which they use in part to explain some remarkably low-quality performances.

However, even those who, like myself, know only a little of the British sports structure, know that British athletics are as tainted as anywhere, and their holier-than-thou attitude really is unjustified. Between training camps, shoe scandals (how the hell does Ron Hill retain his amateur status?), junior awards and the like, the periodic assurances

Readers' Comments, Box 366, Mountain View, Calif. 94040

we receive from such as Wilf Richards of the purity of the British sound rather hollow. Look at Gordon Pirie's career, or Alan Simpson's, or Lyn Davies', or Hill's and then tell me the truth.

If the British haven't taken the maximum advantage of the system, it is not because they have been unwilling to do so. It was just that, until recently, most of them couldn't really figure out how to go about it.

*Desmond O'Neill
Santa Barbara, Calif.*

OMISSIONS

I was quite disappointed in reading "Running Highlights" (March 1972) that no mention was made of the Albuquerque Jaycee indoor meet. Two meet records and a world indoor best were set in the three distance events. Kip Keino ran the fastest mile, indoor or out, in New Mexico with 4:04.2 at this mile-high site. In the two-mile, Richard Sliney lowered the two-mile record to 8:48.4 to defeat George Young. Kathy Gibbons recorded a new world best in the women's 1000 with 2:34.8. You slighted this fine meet.

*Ken Hansen
Denver, Colo.*

In the article "A Young New Jersey Hustler," a very fine New Jersey distance runner was conspicuous by his absence: Jim Crawford, who has defeated Marty Liquori and other great runners, and has several sub-four-minute miles to his credit. He certainly deserves a place among the distance stars that New Jersey has produced.

*Virgil Lawyer
Searcy, Ark.*

Your magazine is good, but lacks articles about Olympic champions. And becoming an Olympic champion is really what it's all about, no?

*Charles Reichert
Greenville, S.C.*

OUR WRITERS

You do yourself a disservice by comparing *RW* unfavorably to *Sports Illustrated* ("Our Leading Natural Resource" January 1972). Your articles are generally accurate and informative, giving the flavor of the sport as the participants know it. I think most of your readers would be quite disappointed if you descended to printing the kind of glib trash that passes for sports journalism in *SI*. Far better an amateur writer who knows his subject than a slick professional who writes a clever article—then chooses the facts to match. In short, the professional writer is primarily after a *good* story, not necessarily the true story, and I think your readers will happily do without that kind of "good story."

*Tom Bache
San Diego, Calif.*

"Our Leading Natural Resource" sets the tone for the magazine. This is grass-roots participatory democracy. The trouble is even your readers can't believe it. You have 7000 stories out there, full of new insights, experiences and approaches to our favorite sport.

*George Sheehan
Red Bank, N.J.*

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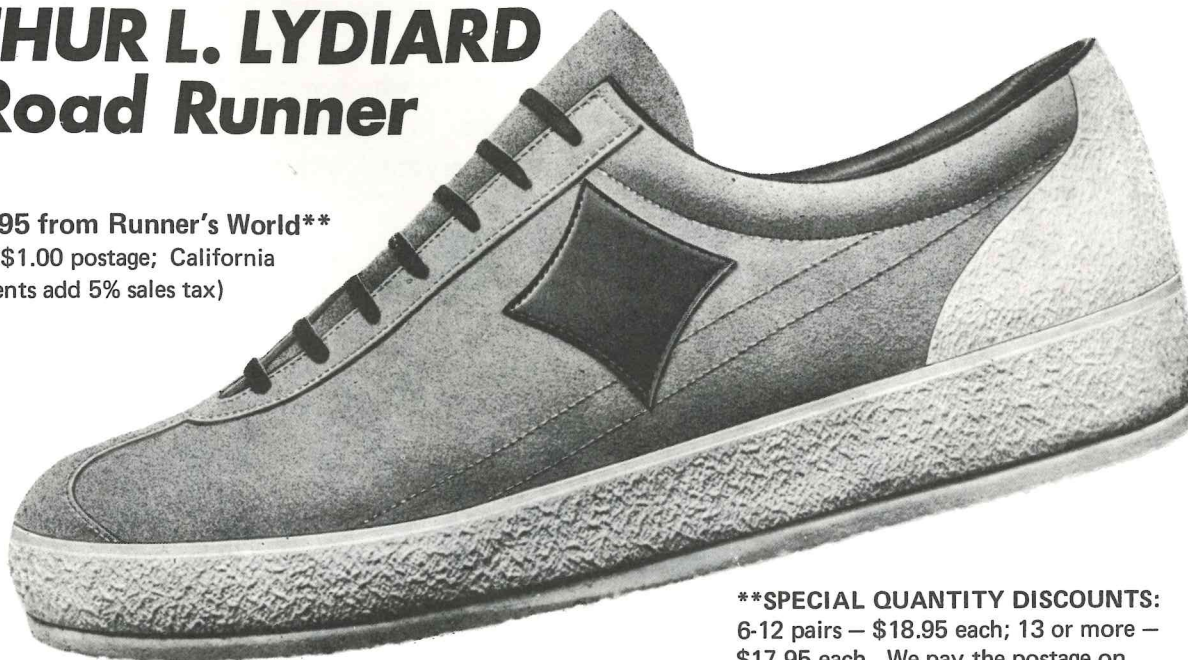
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RUNNER'S WORLD MAGAZINE

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"My Lydiard shoes are the greatest. They're more comfortable than a pair of slippers, and unlike all other shoe brands, the Lydiard shoes don't feel like track shoes." (B.G., La Mirada, California)

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RUNNER'S WORLD, Post Office Box 366, Mountain View, Calif. 94040

LET'S HELP THE US OLYMPIC TEAM

It has recently been brought to our attention that the U.S. Olympic Track and Field Fund is far short of the amount of money necessary to adequately meet the needs of our competitors in Munich. Our Olympic athletes receive no government support, but worse than that, they receive little support from those who benefit the most from watching or reading of their efforts—their fellow runners. In order to cut the deficit facing our team, we have come up with a plan to benefit everyone. With your help, we can raise a sizeable donation before the Munich deadline.

HERE'S HOW IT WORKS

Purchase one of the colorful shirts and we'll send a percentage of the sale to the Pacific Office of the U.S. Olympic Fund. The shirts are adorned with the Munich Olympic symbol on the front and the slogan, "I gave to support the U.S. Olympic team" on the back. The price is a low \$2.95, and with every order for a dozen shirts we'll throw in an extra shirt free.

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If you order any pair of the high quality Tiger Shoes from the list below, a donation will be sent in for the same amount on that sale, and as a bonus you'll receive one of the Olympic shirts free. So pitch in and do your part in sending our team to Munich.

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