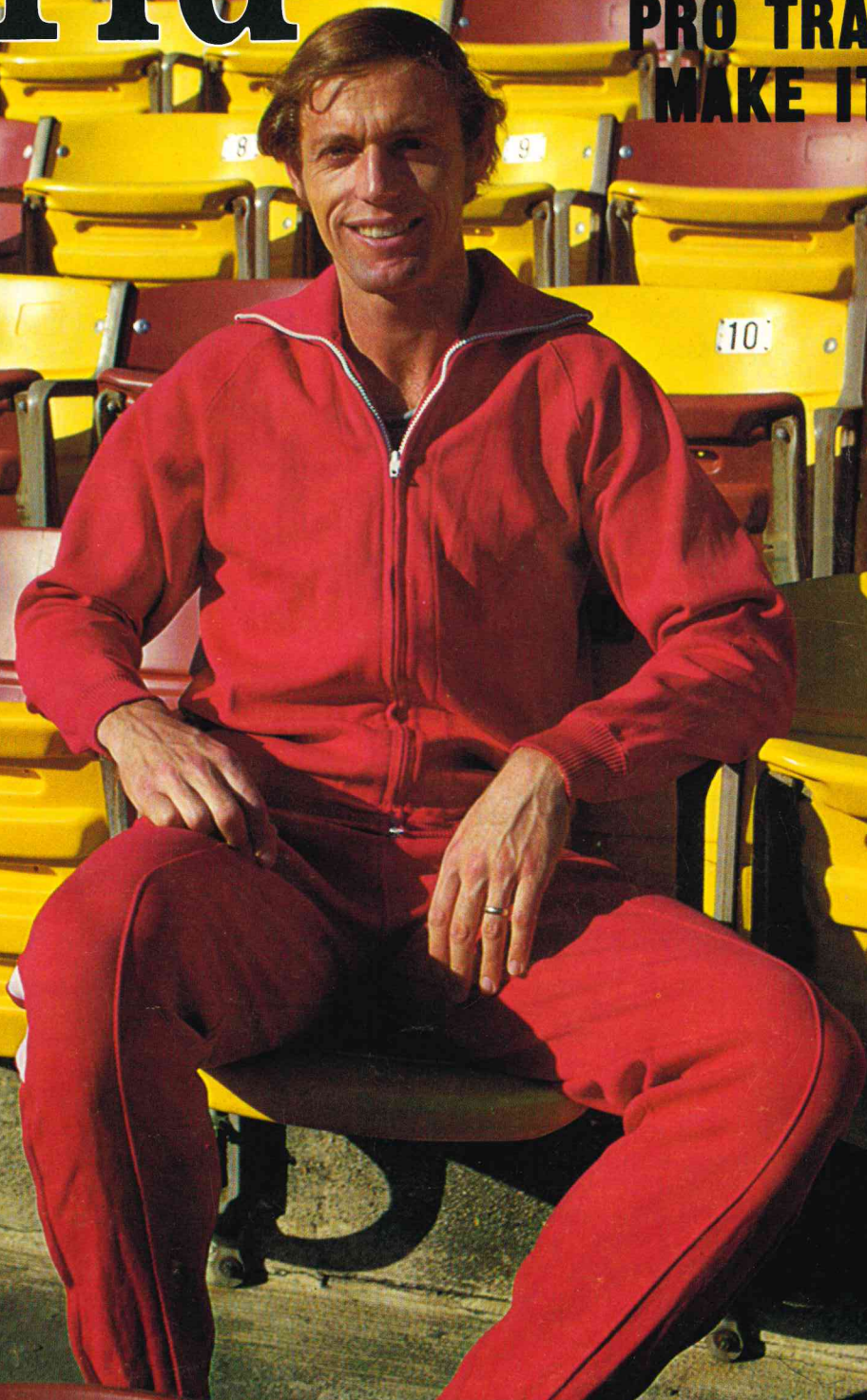


Runner's World

MARCH, 1973 • 75 cents

**WILL
PRO TRACK
MAKE IT?**



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This month, the Running Shop is saluting some of the original TIGER models that have aided our business over the years with their perennially strong sales. These shoes have undergone the stiff test of time and still rank among the country's most popular training and racing flats. We pride ourselves on our reputation for providing the finest values available anywhere; but to help emphasize this unusual discount, we've listed for the first time, the prices offered on these same items by one of our major competitors. CHECK THE DIFFERENCE!

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RUNNER'S WORLD

Volume — Eight March, 1973 Number — Three



COVER:

The new professionals, like Tom Von Ruden, are stepping into a new area of track and field. The success of the venture rests with filling arenas like this one. (Stan Pantovic photo)

RUNNER'S WORLD

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FROM THE PUBLISHER

Pro track? How is it going to be presented? What is it going to do to the sport? What are the athletes' viewpoints? What does the leader of the group, Michael O'Hara, have to say about the whole situation? These are just a few of the questions we had about pro track—and we found the answers.

Personally, I think that if pro track goes, then it could be a big help to track and field. There will be a certain amount of amateur talent lost to the pro ranks, but with the number of runners in the United States, I personally feel that we'll be able to field as strong an amateur team as we do now.

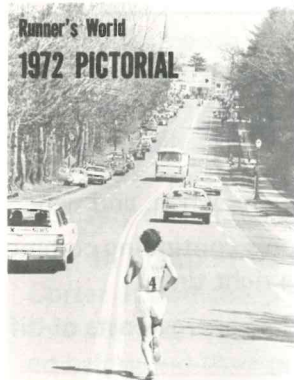
But maybe not at first. If pro track goes right from the beginning, many of the top men will probably be interested in getting into it, thus weakening the amateur field. But over time it should balance out again. And it might be the climax of a long amateur career which is needed. Not everybody can win an Olympic gold medal.

We are very much on the move right now at World Publications and we are looking for "salesmen" throughout the United States. A very energetic type of guy could earn up to \$8,000 per year. So if you might be interested please drop me a note. It would be a selling job and if you don't fit into this area, you probably would be better off not getting into it.

Many good comments on *Runner's World*. Sure like to hear what you think. One last thing, do check your address on the outside of this envelope. If it isn't printed dark enough, or if the zip code is wrong, please send the wrapper back with your corrections. This could be why you are getting your magazine later than your neighbors.

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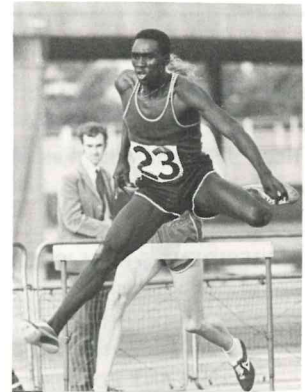
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ARGUMENTS ON PRO TRACK

It can let runners earn honestly, but big questions remain about its prospects and effects.

It isn't fair to single out this Olympic champion by name. All runners of his class have this kind of temptations after their names become marketable. An overseas race promoter called this one and made a straight-out offer of \$1000—above expenses—to come and run. The promoter said he'd throw in another \$500 to lure a buddy of his, another Olympian. Both runners are still practicing amateurs.

This case, which isn't at all unique, is the best argument for professional track. Most top trackmen already are professionals in everything but name. They make high investments of time and energy. Running often is their main occupation. They entertain the public. Directly or indirectly, most of them get paid for their work—and deserve it.

No Olympic medalist has lived by amateur law, because amateurism died long ago at this level of competition. The only difference between the "amateur" track circuit in America and the new International Track Association (ITA) pro meets is that runners in the latter get their paychecks above the table, without suspicion of wrong-doing or fear of getting caught.

Pole vaulter Bob Seagren said when he signed with the ITA, "I'm through with the hypocrisy of amateur athletics. I don't have time for amateurism any more. I'm going to try to promote pro track now. That'll be worthwhile."

Whether the concept of professional track is worthwhile and can succeed (these two factors aren't necessarily the same) won't be known for a long time yet. The pro meets didn't start until early March, and it may be a year or more before their value and survival potential can be measured.

But at least the ITA has this one commendable feature. It is taking some of the hypocrisy out of high-level track. It gives runners an untainted dollar for their work, and gives them a fair share of the money they themselves are bringing in.

The best possible result of the professional movement would be to speed the day when there is no more professional-amateur distinction. That means open track, patterned after open tennis. All athletes compete together. The best ones—the ones who draw paying crowds—get paid and aren't segregated from the others like circus performers.

The new professional circuit appears to be founded on the best of intentions, with a collection of representative runners, sound management and promotional talent, and a deep well of money to get everyone through the early meets. But there are hard questions the pro tour has to answer.

1. *Does it have the spectator appeal to make it in an already crowded field?* National pollsters indicate that track interest is growing in the United States. Louis Harris questioned sports fans after the Olympics. "Which of these sports do you follow?" he asked them as he showed them a list of the major ones. Track and field ranked fifth, behind football, baseball, basketball and bowling. Twenty-three per cent of the fans "followed" track. This was up by 7% since 1969.

A recent Gallup Poll gave a different picture. It sampled the sports attended in the last year. Track and field was only 11th here, with 6% of the people making the effort to go to a meet. Even though this percentage has tripled in the last decade, it still puts track way down the list of spectator sports. And spectators are the lifeblood of professional sports.

Pro track has other things working against it. One is the Olympics. So far, there has been no great move of young athletes with Olympic ambitions to join the pro tour. Even Marty Liquori, who has signed on as the ITA's master of ceremonies, has balked at running for prize money until after 1976.

Any amateur running against the pros immediately disqualifies himself

from meets like the Olympics. So there will be a separation of the two groups: the young, upcoming runners on the amateur side, and the older, perhaps slipping stars on the professional one. There's no prospect yet of free mixing.

This will hurt the ITA, which already is being pictured in some circles as a collection of "has-beens" who are cashing in one last time after they've milked the last from their amateur careers.

The touring group will be small. Races may turn boring very quickly if the same miler runs 4:11 and beats the same people every week.

Wes Santee, a miler in the 1950s who was disqualified for alleged professionalism, says, "To succeed, professional track will have to have big names, but it will also have to have competition in every race."

Track people can't be fooled easily because they have their stopwatches. They won't support professional runners on reputation alone, particularly if they can see more varied fields and faster races in so-called amateur meets.

2. *With the paycheck as a major goal, will a runner's view of the sport be "corrupted"?* No more than it already has been by pseudo-amateur bigtime track. Anyone good enough to reach the pro tour has already been living and thinking like a professional for years, but at low wages. No one gets rich from the payoff system.

Jim Ryun said the day he turned pro, "I'm still learning what a lot of guys did—the double plane fare and all that. There were people who suggested that I should take advantage of it, but everybody has to have moral standards. When I left Kansas for the Olympic Trials, I had \$200 in my checking account. I didn't have a savings account."

Financially, running has been a sacrifice for Ryun. But with money in the bank and time to spend on the sport, he claims his motivation "is greater than it ever was. I'm not running for

a watch, or a trophy, or a medal. I'm running for my livelihood."

But while Ryun has said, "I think it is about time I got something out of the sport," and Marty Liquori has said, "What else can you use sports for but to get a job?" others have practical or philosophical reservations about running for pay.

Australian sprinter Raelene Boyle, second in the 100 and 200 at Munich, turned down an estimated \$20,000 a year on the circuit. "It would be too hard a life," she said. "You have to keep winning to make money. Anyway, the money is not near what I would want."

At first, Kipchoge Keino was dead set against turning pro. He said repeatedly, "I would lose my job because of the time involved. Not even a good offer would make me change my mind, because it is for only a short period that I would receive this money."

Keino was saying this less than a day before he agreed to run as a professional this year and accepted a \$4800 bonus. The ITA made him an offer he couldn't refuse.

3. *Do track's other participants want it?* Reactions from the vested interests of the sport—the Olympic officials, coaches and grassroots runners—range from skeptical to hostile. Track is a tradition-bound sport, and few of the people closest to it want to see the traditional values shaken.

Olympic officials are predicting an early death. US Olympic track chairman Bob Giegengack has said, "This is not the first time that pro track has raised its ugly head. It has never gone over, and I doubt if it will this time."

College coaches understandably don't want to see their programs turned into minor leagues for the pros, as has happened in football and basketball. Jumbo Elliott of Villanova said pro track "has two chances—slim and none." Oregon's Bill Bowerman said, "Athletes signing with the pro circuit have dollar signs in their eyes and mush in their heads."

Many purists are afraid that the wrong kind of values are going to rub off on the sport they've known and loved, and that track will become just another spectator-oriented package in the super-market of professional athletics.

They shouldn't worry. The sport is strong enough and varied enough to survive and thrive on a number of levels. The different levels can co-exist. Pro track is no threat to the others, and it might even help them. At least it rates a fair trial. If it isn't worthy, it will die a natural death.

NEWS AND VIEWS

OVER-MARATHONING

The co-writers, Tom Heinonen and Janet Newman, are both long distance runners. In June, they are due to become Mr. and Mrs. Heinonen.

Frank Shorter's marathon victory in Munich—appearing so effortless to the casual viewer—was the greatest boost for American distance running since the 1964 Olympics when Bob Schul and Billy Mills won gold medals. Shorter's win added further glamour to the classic race, a glamour obviously reflected by the increasing number of marathons and would-be marathoners.

As road racing increases in popularity the mystique of the marathon grows. Promoting and running marathons, however, have become overemphasized. *Runner's World* listed 124 marathons in the United States last year.

By comparison, few intermediate distance races are as attractive. Few have the status of the Springbank road races (4½ and 12 miles) in Canada or the lure of San Francisco's Bay to Breakers (7¾ miles). Unfortunately, the marathon is the only commonly contested international distance longer than 10,000 meters. Promoters are attracted to the traditional distance, resulting in the present abundance of marathons—races too often run by the fit and too soon run by the unfit.

Legitimate road racers, when confronted by attractive shorter races, would curtail their marathoning. A 10-mile requires less rest before and less recuperating after. Besides, it's more fun.

World class track men/marathoners like Shorter are in the enviable position of being able to pick and choose their races. They run in numerous track races but only two or three marathons a year. However, for the average road runner the only status race available is the marathon. Intermediate distance races are too often second-rate in promotion, course measurement and provision of facilities. These races receive little local publicity and in some areas are regarded as "a dime a dozen."

A certified 10- or 15-mile promoted with the same enthusiasm as the new marathons would do greater good for the trained road racer. Like-

wise, the not yet fit, would-be distance runner, tempted by an abundance of highly-promoted marathons, could have a more sensible introduction to distance running in a shorter race. Unfortunately, like the casual sports fan who thinks the Olympics is the world's only track meet, the novice often thinks the only challenge in road racing is the marathon. A shorter race would be more suited to his training and give him a more realistic and perhaps more enjoyable view of road racing.

If more emphasis were placed on well-run, highly promoted intermediate distance races, the road running community would be better served, Frank Shorter and Pheidippides notwithstanding.

JANET NEWMAN &
TOM HEINONEN

OLYMPIC VIEWPOINT

John B. Kelley, who retired at year's end as president of the AAU, had some stirring comments on the Olympic Games in a recent issue of *AAU News*:

"It is not so much that the Olympic Games now need restructuring. They have always needed restructuring. It is not that they are now too large. It's that they always had the aura of the colossus surrounding them. It is not that they now provoke political behavior. It's just that we have never admitted the rampant political activity that has always gone on in the Games.

"What will be required will be new innovations to minimize some of the problems of the Games. Perhaps a restructuring of the Olympic Committee will be necessary. It is perhaps a necessity to bring more and more athletes into the decision-making process. Perhaps too we should push for a new format of the Games.

"We have spent too much time wondering whether a man is an 'amateur' and not enough time concerning ourselves with the spirit behind his competition in the Olympic Games. What should be pervasive in our thinking in these matters is relevancy of the Games to a modern era. We cannot adapt this era to the Games, so we must adapt the Games to the era."

RUNNING RECOVERY

I started jogging four years ago. At that time, I was a complete physical and mental wreck. I had just come out of a phase of my life during which I had spent most of my time taking LSD and smoking marijuana. I had done almost

no exercise in years. In addition to being in poor physical shape due to lack of exercise, my mind was plagued by constant delusions and hallucinations due to the massive amounts of hallucinogenic drugs I was then taking. I couldn't take the strain on my mind any more, so I quit taking drugs. But I found that as sometimes happens I still suffered from bizarre delusions and occasional hallucinations, known as post-LSD "flashbacks."

Friends of mine became concerned because my physical condition had deteriorated to the point where even small physical exertions left me breathless. Often they said they found me to be incoherent, irrational and withdrawn. I was so out of shape that running a half-block to catch a bus left me absolutely winded. And I was only 23 years old at the time.

Most important to me at the time was finding a means to mental stability and peace of mind. But I began to adhere to the belief that a healthy body was a pre-requisite to a healthy mind. I thought of taking up meditation and yoga. Then one day I came across a copy of *Runner's World* at a local library and leafed through it. I think what caught my eye were the large headlines saying "LSD" above a picture of men running.

Naturally, the idea of LSD and running going together got me curious to find out what the story was. So I read through the publication and discovered that your kind of "LSD" referred not to lysergic acid diethylamide but was instead an abbreviation for "Long Slow Distance" running. I read articles on the physical benefits of running and decided to give it a try.

At first, I tried running around the yard at my house, but was only able to run two or three laps at a time without being totally winded. After about a month of daily workouts I began to jog at a nearby high school track. I progressed to where I could run a half-mile, then two half-miles and then a mile without stopping. I'd be thoroughly winded and sweaty and tired after those daily sessions, but I began to feel it as a good kind of tiredness, one which goes with the knowledge of accomplishment and of victory over oneself.

But most important of all to me at the time was the sudden discovery that the more of this kind of LSD I indulged in, the less I was plagued by flashbacks from the other kind. Along with my physical health, my mental health was being restored at a rate and to a degree that I never thought possible.

Believe me, when you run 5-7 miles every day, and I now do, who can find the energy to hallucinate? You couldn't do it even if you wanted to!

—NAME WITHHELD

MORE SELF-TESTS

Ronald Knowlton, an exercise physiologist at Southern Illinois University, has spelled out additional self-tests of fitness—beyond those appearing in the February issue. Knowlton says these are standard measurements found in fitness literature.

The February article described how to find one's "ponderal index"—an indication of body composition. Divide the height in inches by the cube root of the weight in pounds. T.K. Cureton has written that an index of 12.8 is the mean and is an approximate "passing" mark for endurance runners (sprinters may go as low as 12.4). Figures above 14 indicate extreme leanness, and below 12 is heavy.

Jean Mayer has written that the "pinch test" is a good gauge of body fat. Pinch a free fat fold on the back of the upper arm. It should be less than one-half inch.

A good test of explosive power and strength is the standing long jump. Cureton says a fit individual should be able to jump his height plus one foot.

The Harvard Step Test measures aerobic capacity and recovery rate. It involves stepping onto and off a 20-inch bench, 30 times a minute for four minutes. The pulse is then checked three times for 30 seconds each: (1) 1½ minutes after exercise; (2) 2½ minutes after exercise; (3) 3½ minutes after exercise. The fitness index is figured with the following formula:

$$\frac{\text{time of stepping (in seconds)} \times 100}{2 \times \text{sum of three pulse counts}}$$

The higher the score, the better one's aerobic capacity and recovery rate. Figures over 80 are considered good.

A quicker way to check this is with the Golding Test. Use the same stepping system, but only exercise for one minute. Wait 15 seconds, count pulse for 15 seconds, and repeat this two more times. Then add the three 15-second pulse counts. Scores of 67 and below are judged excellent.

"DEAR UNCLE CLIFF..."

Cliff Temple is the athletics (track and field) correspondent for the *London Times*. In that capacity, he often gets letters from readers who are troubled with questions pertaining to running. This is a selection of them, reprinted with Cliff's permission.

Q: *In reply to my last letter, you suggested that I should wear heavy shoes and thick socks when training on the road. Last night I was arrested while running down the High Street. What did I do wrong?*

A: I think you misunderstood my reply. I didn't mean only heavy shoes and socks...

Q: *I have problems with my right leg. I pulled a calf muscle, injured my knee, tore a hamstring and the foot tendons are strained. What should I do?*

A: Try limping?

Q: *Ever since Lasse Viren won two gold medals at the Munich Olympics, I have been wondering whether it would help my own athletics if I grew a beard like his. Do you think it would?*

A: Gimmicks like that won't make you run any faster, so pull yourself together, girl.

Q: *Is it true that the London to Brighton road race is not going to be held any longer?*

A: Yes, because if it was any longer all the runners would finish in the English Channel.

Q: *As a prize in my last race I won a flat, black plastic disc with a small hole in the middle. Whatever is it?*

A: Subject to ratification, this could be a record.

Q: *Could you please tell me the stride pattern used by David Hemery in the Munich 400 hurdles final?*

A: Yes, all three medalists used the same stride pattern: left, right, left, right, left, right.

Q: *Are there really more than 1000 starters at the English cross-country championships?*

A: No, there's just one starter. But there are more than 1000 runners.

Q: *Every time I put up a bad performance, I can't help taking bites at a hammer, out of pure frustration. Am I breaking any rules by doing this?*

A: No, you can continue competing with your 'ammer-chewer status intact.

—CLIFF TEMPLE

1973 RUNNER'S ALMANAC

It's not simply an update of the 1972 version. This one adds to it with many exciting and valuable new features—notably a "Running Doctors Directory." Ready March 1. 148 pages. Just \$2.50 a copy. RW, Box 366, Mt. View, Ca. 94040

TOM VON RUDEN



Pantovic

Last year was a bad one for America's top milers. Marty Liquori, of course, lost out early because of his foot injury. Jim Ryun fell at the Games. And Tom Von Ruden...

Von Ruden has never had the status of his two 1968 Olympic teammates, though Tom has been upfront more consistently than either Ryun or Liquori the last four years. Possibly because he has been so steady and reliable, Von Ruden's work has never been as dramatic as that of the other two.

When he slipped into fifth place in the semis of the Olympic 1500 trial at Eugene last July and out of contention for the Olympic team, the moment passed all but unnoticed. His retirement from track went unannounced because no one asked Tom about it. He took a job as assistant track coach at the University of Southern California, which technically made him a professional.

"I've always set my priorities so running has come first," Von Ruden says. He notes that full-time work and full-time running don't go together, and that as a 28-year-old married man it was time to start working.

He had run in Idaho in high school. But, being an all-around athlete, he only trained for track during the spring. He never broke 4:30 for a mile.

Von Ruden went from there to Oklahoma State University, where most of his best running occurred on relays. He also triple jumped in college.

For a time, it appeared that he was best somewhere in between the half and the mile but not quite fast enough in either of the standard distances to make it internationally. He still may be best in between—he holds the indoor world record for 1000 meters, and outdoor US marks at 1000 yards and 1000 meters—but both his endurance and speed improved after college.

Tom was a finalist in the 1968 Olympic 1500, placing ninth. He kept improving between Games. Last February, he ran 3:57.9 for an indoor mile. In March, he did 3:57.8. He was beating everyone. Then suddenly, in May, he had a loss in form that he still can't explain.

He was "retired" when news of the new International Track Association got to him, but the pros didn't have to call him about signing up. Tom called them, asking for a chance to run again.

RW: *After your excellent winter and spring of racing last year, you suddenly lost your form just before the Olympic Trials. Have you been able to explain what happened?*

Von Ruden: I still haven't been able to explain it. The two months that led up to the Trials were the worst time that I've ever had in my running career. I still don't know what it was.

I left Stillwater (Okla., where he was attending Oklahoma State University as a graduate student) in the middle of May and came out to California to train up until the Trials. I took three days driving out and expected to feel bad for at least a week after driving that far. After a drive that long, you usually feel stiff and sore for a few days at least. But that same feeling lingered on for the full two months.

I still don't know exactly what it was. The muscles in my thighs, hamstrings and the front of my thighs were stiff and sore the whole time. My hip joints were stiff, and I couldn't do any speed work. It's a mystery.

That feeling eventually caused some mental problems, too, because I got so depressed feeling like that. I couldn't even do a good workout.

RW: *Were you down mentally at the Trials?*

Von Ruden: I'd had a bad feeling for so long before I got there that I couldn't really expect to do anything or for some reason just to pop out of it and start feeling normal again. So I kind of half expected (a bad race) when I went up there. This probably wasn't a good attitude, but I hadn't had a single thing to indicate to myself that I'd start feeling different just because I was in the Olympic Trials.

RW: *When did you have your first contact with the International Track Association?*

Von Ruden: It was in September. I heard about it through some other

runners, and I called Mike O'Hara (president of the ITA).

RW: *What was your first reaction to the news that there would be a professional tour?*

Von Ruden: I'd been hoping that someone would try something like this, that some group or individual would have the means or ingenuity to try it. I'd planned on ending my career after the Trials. I thought I'd had enough running—that 18 years was enough. I thought at that time that probably the only thing that could get me back into it would be a professional circuit.

RW: *Had you been having to make sacrifices yourself, at least financially, to keep up your running?*

Von Ruden: Definitely. This had sort of been bothering me. I have been married for two years now, and my wife has had a job. That's the only way I've been able to support myself. I've had a couple of part-time jobs, and that's all. If you're really going to commit yourself to top-notch track and field, you have to devote a lot of time to it. Working full-time and training full-time just doesn't jive.

RW: *How has going pro affected your motivation?*

Von Ruden: As I said, it's the only thing that could keep me going. I think that last year I kind of got the feeling that maybe I'd finally reached my limit potential-wise. I feel that I've done every bit of training I needed to get as far as I could. I'm getting the feeling that no matter what else I do, I can maintain the same level. But I'm not too confident that I can go much further time-wise than I have.

RW: *You haven't run a race now in six months or so. What do you feel your condition is right now (early February)?*

Von Ruden: The past month I've

been coming up pretty good. I feel like I've progressed pretty well. If I'd had to get ready for the regular indoor circuit which I usually run, I could have been the same place I've been the last couple of years.

RW: *Has this heavy, stiff feeling you had at the Trials last year gone out of you completely?*

Von Ruden: Not exactly. I took two months off after the Trials. The first month back, I felt okay. But then I started feeling bad again. I've taken all the supplements. I've had blood tests. Nothing has indicated that anything is wrong. I'm not sure if it could be mental.

RW: *Have you been doing basically the same sort of training preparing for this season as you have before past indoor seasons?*

Von Ruden: Yes, except that I haven't done the speed work as early as I usually do. Usually I try to do a little pace work in December and January to get ready for the indoor meets. But now I don't have to get ready until March so I'm just starting to pick up the pace. I'm coaching at SC (University of Southern California) and I train with the guys on the team. I just about have to have someone to train with.

RW: *Do you look at the ITA as a long-range opportunity for you, or have you set a limit on how much longer you want to compete?*

Von Ruden: I haven't really set a limit. I'm going to have to see how everything goes. I'm not looking beyond this year. I want to do as well as I can this year, and if I have no physical breakdowns I'd like to keep going a year or two after that.

RW: *The format of these meets seems to be made to order for you since you always run well indoors...*

Von Ruden: There are two things. I do better indoors than outdoors it seems. And also I like to compete frequently, and I always feel better the second night (of a weekend double). Also, I think anyone would get bored running the same distance night after night, but I can choose any event from the 880 to the two-mile. I wouldn't get too bored if I ran the 880 or 1000 every night. But if I had to run the mile or two-mile every night, that might get to me.

RW: *Has the ITA put any limitations or requirements on you as to what and where you can run or must run?*

Von Ruden: The ITA doesn't

say which events or anything, but they do stipulate that I can't run for any other professional group. The contract guarantees a minimum of 16 meets, and after that they will evaluate my performance and say whether they want me for the other meets.

RW: *One of the reservations some people have about the pro tour is that it may get boring to see the same people running against each other meet after meet. Do you think this could be the case?*

Von Ruden: It could be if you have the same runners running the same events night after night, but they are going to be switching around. It's hard to say right now because they've only got a couple of guys signed in each event. At the last minute there'll be a lot more joining up. If the venture is successful this year, I think there's going to be even more of a rush—with even more international people interested.

I think there'll be a pretty good turnover, especially if they keep the contract the same where a runner is only guaranteed 16 meets and after that it depends on his performance. There'll of course be injuries and replacement of injured athletes, too, and that will produce a turnover.

RW: *Do you foresee this as being a full-time job for you, or are you going to continue your coaching along with it?*

Von Ruden: I think I'll continue coaching at SC. These are two things that go along pretty well together. The training during the week is the most im-

portant for the athletes I work with, I think. They don't need me at the meets. When they go off to a meet, there's not much I can do for them. They'll understand if I'm going off to another meet.

RW: *As far as your own participation goes, do you feel now that you're going to be paid for your running that that it is somewhat easier to make the time for your workouts and races?*

Von Ruden: That never has been a problem anyway. I've always set my priorities so running has come first, and then whatever else I could fit in I would. I think that even with the money that pro track offers, it's really not that much more motivation. The motivation has to come from within rather than for any material gain you get. The reason a guy gets into running is because he gets some satisfaction out of it.

RW: *So are you saying that anyone who goes into this just for the money is not going to get very far?*

Von Ruden: I think to have success in the first place, an athlete has to be motivated by something else (besides money). And that reason is going to stick with him even though the money is there. Money might provide a little extra incentive, like at the end of a race where you're in a crowd of three or four guys battling for places; a guy might get a little extra surge of adrenalin there. But the whole reason he goes through the workouts will be the same as it has always been—the satisfaction he gets out of running and competing.

1st Annual Del Webb's

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Jim Ryun announces
his pro intentions.
(Paul Sutton photo)

U.S. TRACK GOES PRO

*The attempt to make
the sport a profitable
venture--for
athletes and
promoters alike.*

Of the writers in this section, Michael O'Hara is founder and president of the new International Track Association. At Runner's World's request, he made these comments to specific questions in late January. Bill Emerton raced for many years as a professional in Australia. He now lives in the US. Walter Boehm, a former coach, heads the State Department's international athletics section. George Sheehan is a regular RW contributor.

SUMMARIZING I.T.A. PLANS

American track goes pro at Pocatello on March 3 when the International Track Association pushes the sport into a new era filled with promise and risk.

The ITA is serious about this venture. Experienced promoter Michael O'Hara has gambled big money on it, and has signed some of the sport's biggest names.

The success of the pro tour apparently will depend on two factors: first, drawing crowds to see top athletes, and then to keep the people coming back to see top performances and a well-staged show.

Like it or not, this is what professional sports are all about. They're giving the public what it wants, for a price. In this regard, pro track has to be as much entertainment as sport if it hopes to survive.

Briefly, the facts on the ITA's tour are these:

- **Athletes...** include present or past world record holding runners Lee Evans, Bob Hayes, Jim Hines, Gerry Lindgren, Jim Ryun, Kip Keino and perhaps others who will be joining before the season starts March 3. The entire tour will total 50-60 track and field athletes—mostly men. O'Hara calls them "independent contractors" who can race where they choose and earn what their abilities will allow.

- **Staff...** includes O'Hara, a one-time Olympic volleyball player and founder of the American Basketball and World Hockey Associations. Director for the meets is Jim Terrill, coach at Amherst (earlier an assistant at Stanford and Yale), who has directed the successful Examiner All-American Games for several years. Marty Liquori will announce the events. The ITA has a long list of technical advisors and administrative personnel.

- **Schedule...** starts with a series of indoor meets in the United States lasting from March to June. Following that, the runners move to Europe for a summer of outdoor competition. US meets will be one-night stands in at least 18 cities, usually two each weekend. As far as possible, the ITA has tried to avoid direct conflicts with amateur meets.

- **Format...** for the meets will be 12-15 events with small fields. Most will include about 10 men's events and two

SCHEDULE OF 1973 I.T.A. INDOOR MEETS

(Additional meets may be added; summer schedule in Europe not set yet.)

March 3	Pocatello, Idaho	May 4	Chicago, Ill.
March 23	Albuquerque, N.M.	May 5	Toronto, Ontario
March 24	Los Angeles, Calif.	May 11	Philadelphia, Pa.
March 29	Portland, Ore.	May 12	Pittsburgh, Pa.
March 30	San Francisco, Calif.	May 18	Vancouver, B.C.
April 6	Ft. Worth, Texas	May 19	San Diego, Calif.
April 7	Oklahoma City, Okla.	June 1	Louisville, Ky.
April 13	Detroit, Mich.	June 2	Richmond, Va.
April 14	Baltimore, Md.	June 6	New York, N.Y.

women's, plus what the ITA calls "special novelty events." The longest race indoors will be two miles. Few races will have more than five or six athletes.

- **Staging...** gets special attention. The ITA wants to "personalize" track by spotlighting each event and each individual in it. They'll run only one competition at a time. Otherwise the area will be clear. O'Hara says, "We will eliminate the visual clutter which makes the average meet confusing for anyone who isn't a track expert." Technical innovations such as pacing lights that blink around the track at predetermined speeds, and electronic scoreboards that give instant results will be part of the plan to make the meets more dramatic.

- **Financially...** the ITA is on solid footing. It is well enough backed that it can offer \$609,600 in prize money the first year. The group has claimed it can hold out for 10 years without making money if necessary, though the backers obviously don't think this will happen.

- **Prize money...** will be dealt out on a first-come, highest-paid basis. Current plans are for winners to get \$500, with \$250, \$125 and \$50 going to the next three finishers in each event. A system of bonuses may be established for athletes who perform best throughout the year. This will encourage running well in a maximum number of meets.

- **Recruiting...** is from the ranks of open athletes only. The ITA's stated policy is not to reach out to the colleges for talent.

- **Rules...** will generally conform to the amateur setup regarding the conduct of events. There will be some experimenting in this area, but as O'Hara said in the accompanying interview, he won't "deviate much from the norm because the norm works pretty well."

- **Records...** made on the pro circuit will have no official status

because the International Amateur Athletic Association and the Amateur Athletic Union rule on these. The ITA undoubtedly will establish its own set of standards, and it's easy enough to compare them with the amateur ones whether they're official or not.

- **Limits...** imposed by turning pro are that the athletes surrender their amateur standing permanently. Unless existing amateur rules are changed drastically, the new pros can't compete in the same races with non-professionals—or even in the same meets.

- **Opportunities...** available to pro athletes are many, and most of them revolve around money. They are free to make an above-board living from the sport if they're good enough. And they can earn extra cash from product endorsements and sports-related businesses.

THE BUSINESS OF PROMOTING

BY MICHAEL O'HARA

We're on schedule with preparations for the first US professional track tour. And that's a 2½-year schedule, I might add. I started working on this back in 1970, but maintained a low profile until the past few months.

The essential was not to interfere with the Olympic Games. I'm an Olympian myself, and I have great respect for the Olympics.

Then we didn't want to do anything until we could put our money where our mouth is. In other words, I wanted to have the initial capital together.

Finally, I wanted to have the key athletes signed, because my experience

with the American Basketball Association and the World Hockey Association told me if you don't have top athletes you're not viable.

Once we announced the first 11 athletes, I no longer wanted to talk about them because I didn't want to start with 50 athletes in March who hadn't had a chance to compete indoors. We backed away from the athlete recruitment and concentrated on getting the right equipment, locating and educating sponsors and endorsers, talking with television people. These are the foundation points which will make our group go.

All the meets I've attended recently indicate to me there is a strong interest on the part of the track fan and from other people in what's happening in this sport. The response to the ITA proposals has been amazingly affirmative. Affirmative and excited. This has been a pleasant surprise. I didn't anticipate this after the ABA and the WHA, where we were number two, Avis-type operation.

Being number one here and starting in with something that is obviously worth doing, we've received a welcome response. People are ready to see these athletes who have given so many hours in the most demanding of all sports but have never been able to realize anything

from it. They've represented their schools with honor and their country with honor, and then they come back and become Clark Kent again. Everyone wants to see these guys who have paid their dues realize something from it.

We're estimating our break-even attendance at 8000 on the average. This is considerably less than the amateur meets in those various cities. After seeing the amateur meets this year, I think we have some differences that will be appreciated by the general sports fan as well as the track and field fan. For this reason, we have little doubt that we will draw crowds.

One area where we have a great advantage is that we can put on 30 meets a year instead of just one a year. Therefore we're able to do a lot of things that the individual meet promoter cannot do. For instance we don't have to worry that the athletes come to our meet. We know the athletes will be there. We can purchase the best equipment available and amortize it over 30 meets. We can try out innovations. We don't have to cater to a number of different masters.

In other words, our prime responsibility is to the fan. Our motivations will be to educate, to stimulate, to encourage that fan to identify with our athletes. If we have the top athletes, as we have and are continuing to get, I think the

product will be the best available. We're going in with better promotion, better presentation, with normally better athletes than the average meet, and at a better time of year. We're not going to compete with amateur indoor track. We're not going to compete with college basketball, with professional basketball, with professional hockey. Our only competition is early baseball.

In 2½ hours, we can concentrate on the top people competing in the most interesting events, for money, using the advanced equipment, trying unique techniques and experimentations. We're starting from scratch, so we can explore and develop. For example, one idea we've already adopted is timing lights. They obviously aren't appropriate for amateurs but we're going to experiment with them.

We're going to experiment with different events, and we have creative people planning those things. Nothing is sacred. We're going to throw some things on the

Proof that the ITA has the athletes—and the backing:
(l-r) Lee Evans, Bob Seagren, Jim Ryun, Richmond Flowers, announcer Marty Liquori, Randy Matson, promoter Michael O'Hara. (Paul Sutton photo)



wall and see what works the best. We won't deviate too much from the norm because the norm works pretty well. But we're certainly going to innovate.

There hasn't been one athlete I've talked to who hasn't wished us well and indicated he would be receptive to what we're doing. Not one has said, "Hey, this isn't good," because they're realists and they know there isn't an amateur any more anywhere in the world. It's all some degree of professionalism, and it's a lot more honorable to know what you're going to be given—and have everybody else know—rather than go any other direction.

I'm not Lamar Hunt (head of the pro tennis tour). We didn't start with a million dollars in the bank. We started with \$300,000 before we signed our first athlete. We're businessmen. We don't expect to make money in the first year, but we are a profit-making organization, and my major problem has been to encourage athletes to join us for what he can earn rather than what he can be paid upfront—as a bonus. It's hard to explain that we're doing this for the first time and no one knows how well we're going to take off.

Our whole philosophy is to put the bulk of our money into prize money. In that way the athletes who do the best make the most money. Basically, they're independent contractors, with an opportunity to make money. We fly them in, put them up, give them a per diem, and everything they win is theirs. If an athlete's not performing up to snuff, coming in dead last again and again, then someone bumps him. The best guys win all the money and the weakest guys drop off. Both golf and tennis operate that way.

The athlete agrees to be available to come when invited. We're pretty much going to determine where and what he runs. But it's like a director dealing with a movie actor. You work things out so that both people are happy, or else you're in trouble. These guys are our product, so we're going to treat them accordingly. While we call them independent contractors, they're also "family" because we're only as good as our athletes. We intend to take good care of them.

One way of taking care of them is to negotiate side contracts! This is a very lucrative field. I was told that one athlete paid income tax last year on \$600,000 and only \$115,000 of that was prize money. The rest was from sponsorship and endorsements. The opportunity here for the top-grade athlete in track and field in many cases will be more

than he can make on the track.

We would welcome the coming of an "open" situation, where professional and amateur could run in the same meets. I think that's the ultimate answer because of the various degrees of "amateurism" mitigate toward letting the best man get out there and win. I think that would clear the air considerably, but of course that's a hard thing to sell to the people in control.

We have tried to work with the established amateur associations (AAU, NCAA, Olympic Committee, etc.).

Before we announced our athletes, I had a conversation with Lord Killanin (president of the International Olympic Committee). I had several meetings with Jack Kelly (then president of the AAU). I talked to the IAAF (international federation) people in Munich. I talked with the NCAA people back here. All of these meetings took place prior to making an announcement so that we could be as compatible as possible.

For instance, we haven't announced the meets we're going to have in San Francisco and in Portland, although we've had a firm date for several months, because we haven't wanted to hurt the

amateur meets that were being run there. We don't need that kind of publicity.

We feel that what we're doing is going to be good for the entire organization of track and field. In fact, Jack Kelly commented to me that the lawn tennis associations were very concerned about what World Championship Tennis was going to do to their ranks. Yet three years later amateur lawn tennis groups are literally bulging with young players because they know if they pay those dues they can make some money at the end.

That's exactly what we're after—that type of recognition. We're going to make those athletes who identify with our professionals feel 10 feet tall because it's good for them and it's good for us. The American sports fan needs to know our kind of athletes. They're super athletes to know. They're articulate, well-educated, well-traveled. These athletes are much easier to identify with than any other kind because they don't have the football helmet and pads, and they're not way out there on a baseball field. It's time for this to happen, and our only concern is that we do it correctly.

KEINO THE BIGGEST CATCH

"We'll have a big announcement for you before your magazine goes to press," Mike O'Hara said when *RW* talked with him at the end of January. He didn't mention a name, but said, "This could be the biggest catch of all. He'll give us the one-two combination we need."

The obvious guess was Kipchoge Keino. The ITA was trying to sign him for a series of miles against Jim Ryun. O'Hara had tracked Keino all the way to Nairobi trying to persuade him to join the group. But Kip insisted all along that he wasn't the least bit interested. He said he'd be ending his running career at the end of the year, and it wasn't worth losing his job for one season of pro earnings.

Then Keino got mixed up in a controversy that seemed to sour him on amateur politics. The US AAU said he came to Los Angeles to race without going through proper channels. The AAU reportedly attempted to pressure Keino out of competing in LA, and San Francisco a week later.

After Keino ran in both meets, the AAU contacted Kenyan officials, questioning the double Olympic champion's amateur status.

The last race of Kip's tour was in Toronto. He won a nationally televised three-mile there. In an interview afterwards, he again stated flatly that he wouldn't run professionally. He said, "I can't serve two masters," and he'd chosen to continue serving the Kenyan police.

Less than 24 hours after the Kenyan said no to the pros on TV, an ITA official from Los Angeles called to tell *RW*, "We'll be announcing this morning that Kip Keino has joined the pro tour."

"I'm pretty sure I will lose my job and my home because of this decision," Keino, a father of six, said when the announcement was made. "I asked my superiors before if it would be okay for me to turn pro. They said no. But I finally decided that, after running for my country for many years, I would now run for Kip. My heart is with Kenya always. But now I have finally been convinced that I should use my running ability to earn my daily bread."

A HISTORY OF FAILURE

Professional track's long history is filled mostly with bizarre promotions, sordid exploitation of athletes, and an almost perfect record of early failure. Previous attempts have ranged from impractical to ridiculous.

The only place pro track has made it for any length of time has been where open betting was involved.

Tom McNab, a British sports historian, writes, "The first professionals were the running footmen employed by the nobility to carry messages. In days of bad roads, these men could often move as fast as horses over long distances, and it was not long before they were being run against each other for large wagers."

This type of sport took hold in England in the 17th century. These "pedestrians" eventually prospered from their running, broke from their masters and managed their own athletic and financial affairs. McNab reports that this type of match racing continued almost uninterrupted until the early 1900s.

Betting events survive only in isolated parts of Britain. The main pro track center now is Australia, where (as Bill Emerton says in the accompanying article) wagering is the foundation.

Otherwise, the money sport can point to little more than a string of man-killing and degrading affairs—six-day runs, indoor marathon matches, Trans-America treks, racing against horses—and a series of promoters' broken dreams.

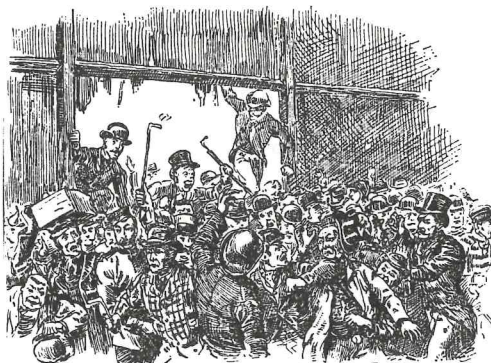
Six-day "go as you please" racing surfaced briefly in the US in 1879. The public was fascinated by the spectacle at first. They paid one winner \$30,000 for a week's work.

Tom McNab writes, "These races were similar to many activities in professional athletics in that they answered the simple law of supply and demand, and vanished when public interest in them faded."

Walter George briefly made professional racing at the standard distances a serious affair. In 1885, he ran a 4:12 mile. No one—amateur or professional—ran faster for almost three decades.

But that was only a pause in the circus atmosphere of pro running. Early in this century, as now, promoters were eager to capitalize every four years on Olympic hysteria.

John Lucas, a running historian from Penn State University, writes that



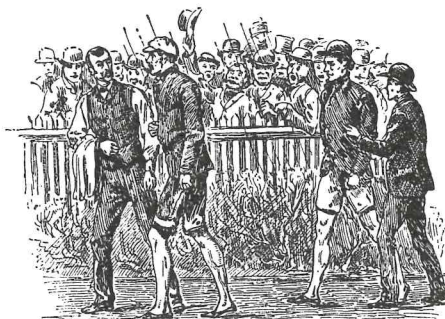
Entries without payment.



"Starting price!"



Keeping back the crowds.



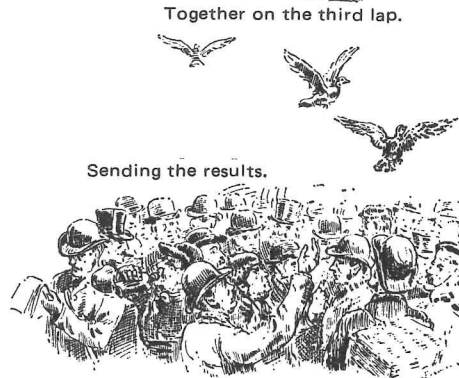
The two champions—George (I) and Cummings.



Together on the third lap.



George wins by 65 yards.



Sending the results.

Walter George was the first great professional runner. In 1885, the English miler ran 4:12. That stood up as the world's best time until shortly before World War I. These drawings from the book "Kings of Distance" show events surrounding one of George's miles—from gate-crashing spectators to sending out results by carrier pidgeon.

the 1908 Olympic marathon "was so bizarre and received such universal publicity that a profusion of amateur and professional long distance races followed throughout Europe and the United States. Several American races attracted the world's greatest distance foot-racers and for a very brief time the sporting populace was in the grip of 'marathon fever.'"

The races revolved around Italian Dorando Pietri, who had collapsed with-in sight of the finish line at the London Games, and American Johnny Hayes, who won the race after Pietri was dis-

qualified. The two turned pro. They agreed to race marathons on tiny indoor tracks. After all, how could a crowd see a road race? More important, how could promoters collect their money from customers if they were scattered along 26 miles of road.

Pietri and Hayes ran the first race, the Italian winning. Then Dorando raced an American Indian, Tom Longboat. Longboat won (both men collected \$5000). England's Alf Shrubbs challenged Longboat and lost. Pietri beat Hayes again. This led to a six-man race at the outdoor Polo Grounds in New York be-

fore 30,000 paying customers. The Italian marathoner took the \$10,000 purse.

John Lucas writes that scores of similar races took place in Eastern cities during 1909. "The extraordinary physical demands of long distance running were, for a time, outweighed by the lure of gold," Lucas says. "The national and international celebrities were sought after by all the promoters and most of the athletes were quick to respond. The spectre of exploitation, excessive physical demands, crass commercialism entered. It was the beginning of the end."

Interest faded quickly. The runners were exhausted. In its "epitaph" to this kind of racing, the *London Times* noted: "The craze for marathon races, which threatened danger to (amateur) cross-country running, seems to be dying out. It is impossible to feel any interest in a modern Pheidippides who runs by electric lights in a building for a reward of dollars. It is to be hoped that such dreary exhibitions, mere excuses for betting, have killed the popularity of such spectacles."

If popularity in such affairs was dead, promoters refused to believe it. The weirdest spectacles of all covered the entire American continent in the 1920s. These were C. C. Pyle's infamous Bunion Derbies. Herds of runners ran across the country, putting in high daily mileages, on promises of big prize money at the end. It didn't come.

The pro sport stooped a bit lower after the 1936 Olympics. When no human sprinter could challenge four-time gold medal winner Jesse Owens, promoters matched him against race horses. That apparently killed these performances for good.

Legitimate professional track, organized on the same lines as the amateur sport, still seems to have a chance in the play-for-pay era of the 1960s and '70s. Businessmen with Olympic cheers in their ears and dollar signs in their eyes have thought so after each of the last four Games.

In 1960 and '64, the attempts to set up professional track circuits manned by Olympians didn't get past the press conference stages.

But after the 1968 Olympics, two pro groups turned up at the same time and sounded more serious than the others. One, the National Track and Field Association, proposed setting up team franchises in cities around the country. It died early from lack of financing. The other, initially called the Professional Track Association, was more durable. It planned a touring arrangement, similar to the golf and tennis practices. This

group's driving force was Al Schallau, a Los Angeles attorney.

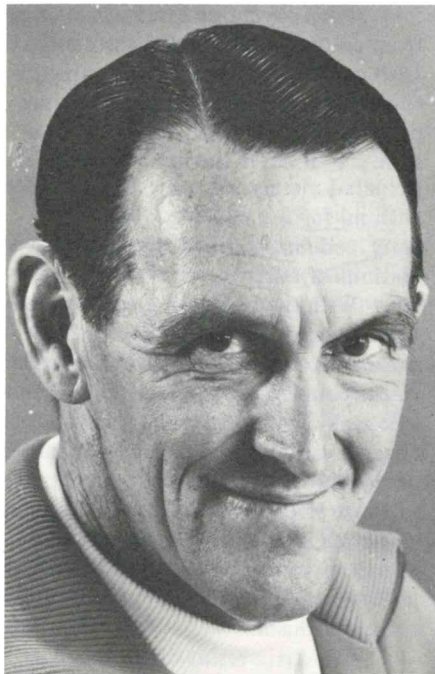
Nothing happened until 1970. Then Schallau announced plans for a tour under the name of World Sports Promotions. The group went so far as setting a schedule, getting verbal commitments from name athletes and selling stock in the company. Within weeks of the first meet, the tour was cancelled. Schallau said it would begin instead in 1971. Nothing was heard from the group again.

The new International Track Association's plans were much like those of the Schallau group. But the ITA apparently has better management, better financial backing, and a better core of athletes. Nothing tried previously in run-for-pay circles has been as workable. But the ITA still has a depressing history to buck as it begins the most ambitious pro venture of all.

AUSTRALIA'S WINNING BET

BY BILL EMERTON

The announcement that professional track will at last be presented to athletic followers in the US is bound to be viewed with a certain amount of skepticism by sports writers and ardent supporters of track and field as to its chances of survival. The press boys are waiting either to praise it or kill it, and



BILL EMERTON

I hope for the athletes' and promoters' sakes that thousands of people are also waiting to cheer on the great athletes like Jim Ryun, Bob Seagen and others.

Ryun is certainly capable, in my opinion, of running a 3:50 mile. However, had he hired himself a good manager-coach he may have earned a lot more dollars in the amateur ranks than perhaps he will pick up as a pro. At any rate, Ryun will certainly rewrite the professional record book from 880 through to the two miles on the fast American tracks, adding to his illustrious amateur records.

I speak from the point of view of one who has been a professional runner himself. I switched over to the professional ranks in Australia back in 1952, having spent many years as an amateur middle and long distance runner. After representing Australia in several international meets, including the British Empire Games, professional track had a real challenging appeal to me. I thought that if I were going to keep flogging myself to keep in shape for the amateur ranks, I might just as well flog a bit harder and see if I could add a little to a small bank balance. I was lucky. I received a thousand dollars from a bookmaker to turn pro, which was mighty handy.

Let me explain a little about the Australian pro track scene. Certainly it is colorful and has a lot of atmosphere with its legalized betting by registered bookmakers. And it is not uncommon for dash men and milers and two-milers to have themselves backed to win 30 or 40 or 50 thousand dollars at some of the big meets.

Pro track usually runs through the summer months, November to the end of April, with meets run in most states of Australia. Also there is a very good cross-country season with events from four miles to the marathon. Most events are on a handicap basis, but a series of non-handicapped championships are held both in track and cross-country.

The track events naturally attract the largest crowds. Many professional football stars run pro track and they have a large following of supporters cheering them on wherever they compete. No field events are held in any pro track meets in Australia, but some large clubs have many professional track bicycle races on the program with the best track cyclists from Europe competing. This diversified program helps to swell the attendance and provides great competition.

Pro track is a rough, tough sport Down Under. At the moment there are

8000 to 10,000 registered pro track men in Australia. Many coaches have as many as 10-15 athletes under their care, and they coach pro runners full-time.

Easily the best organized professional meeting in the world is at a country town named Stawell, 185 miles north of Melbourne. Every Easter some 4000 to 5000 pro athletes converge on this town for the big two-day meet with distances from 75 yards to two miles. The betting on pro running is very heavy, and some 40,000 to 50,000 spectators cram into the stadium to cheer or abuse their favorites. The main event is the Stawell Easter Gift run over 130 yards, with prize money over 3000 American dollars to the winner—plus what he usually wins in betting.

Could professional track ever become this popular in the United States? I don't have the answer. But I do know that if betting were to become legal it would certainly enhance the sport's drawing power.

The ITA has an entirely different setup for pro track than we have in Australia. They have the big-name talent, but they don't have the deep reservoir of talent that the Australians do. As I see it, the ITA needs athletes and good ones, at least a half-dozen starters in every event. The question will be, "Can they get them?" I hope they do because I think it will be great for the sport. It may eventually force the Olympics to be thrown open to both amateurs and pros.

Everyone will observe with interest the upcoming pro circuit. I think it can be a success. Everything depends on how the promoters present it. I say good luck to them and the athletes. I for one never regretted joining the pro ranks, and I hope they have the same good experience.

CAN WE CALL THIS AN ART?

BY WALTER BOEHM

For some of us, there is at least as much aesthetic beauty in the performances of track and field athletes as, say, a ballet troupe's performance of Swan Lake. Yet it is a modern curiosity that ballet artists are paid, while athletes merely gain what economists term "psychic income."

To understand wholly why this imbalance exists would require extensive reading of 18th and 19th century Western European and American history.

It is more expedient simply to say that artists traditionally have received payment for performance or production and sale of their work. Athletics has been regarded as play, for which athletes deserve no pay.

What is an art form? Philosophers, physicians, astrologers and alchemists in antiquity were considered artists. Later, craftsmanship in the manual arts gave another perspective to the art form. In our time, those who prefer and practice activities governed by imagination and taste also are called artists. Athletes, I argue, are artists within this definition.

Of critical importance in art forms throughout the centuries—and critical to my argument—has been the question, "Will it sell?" To practice an art form for its intrinsic worth, while noble in conception, lacks realism. Given the choice, artists prefer to be paid.

Track and field is an art form with proven sales success. So why not share the profits with the performers? Yes, I advocate giving a part of the gate receipts to athletes capable of drawing a paying audience. Yes, I advocate professional track at the expense, if need be, of amateur track. I regard amateur track merely as a stepping stone to the level where performance is viewed with appreciation, translated into socially meaningful and usable ends—like money.

Contemporary track and field champions now are paid under the table as tennis "amateurs" once were. Tennis did away with its hypocrisy. We should open up, too, and pay the athletes what they already earn for others.

The concept of amateurism comes from an aristocratic social caste value of 18th century England. Then only aristocrats, who could afford leisure time, participated in sports. Their amateur code stated in effect that an athlete participated merely for subjective pleasure, with no further concern. The aristocrats' code has marked subsequent generations of athletes.

With the revival of the Olympic movement at the turn of the century came a *melange* of English aristocratic values coupled with a rhapsodic French idealism. Those early efforts institutionalized a value system of amateurism obviously without universal acceptance of those affected directly—the athletes. The code is devoid of a persuasive rationale as to why track and field athletes should not be paid. It is outdated, empty idealism.

The main result of the amateur ethic has been to leave track and field athletes open to exploitation for finan-

cial gain and inflated attention by crafty meet directors and promoters. Openly paying athletes would eliminate most of this dirty dealing, and would allow athletes to earn an honest dollar for their artwork.

An athlete is indeed an artist, and I have never understood why accepting money changes the situation—except perhaps by freeing him to perform his art more effectively. Athletes who have received substantial sums as "amateurs" should be surveyed to describe the supposed metamorphosis which they passed through. Does one, in fact, become a lesser being because he takes money? I doubt it.

ON RUNNING LIKE A PRO

BY GEORGE SHEEHAN

The discussion of the proposed professional track tour seems to have centered on the question of financial feasibility. On that score, the International Track Association's schedule seems to be an iffy proposition. But the ITA gets high marks in my book for its support of track as a professional activity.

In this age of the amateur, our need for professionals is desperate. Few seem to have the dedication, the know-how, the consistent performance that marks the professional. Too many of us lack the all-consuming interest which is the mark of the pro. Missing is the element of caring which characterizes the professional, be he plumber or pediatrician, lawyer or longshoreman.

We know there is no place in life for the amateur. He is the man unwilling to make that final commitment. And because he is unwilling to put himself on the line, he is always inept, inadequate and uncaring. He excuses himself by minimizing his sport, his work, his profession. It is, he implies, not worth the effort of a man. In the end he is unwilling or unable to devote himself to any cause—to make anything his full-time pursuit. He is wasting his life—and our time.

We recognize this difference when as spectators we hold professionals accountable. Performance is expected of the professional. When not forthcoming we feel free to boo him. No one ever boos an amateur. We cheer his



Jim Ryun, one of the first pros, said he was all but broke when he won this 1500 at the Olympic Trials. Bob Wheeler and Jerome Howe (r) trail. (Stan Pantovic photo)

effort. We put up with his incompetence. We admire his persistence. But we never boo him, as we could never cut up our daughter's dramatic recitation or our wife's number painting.

So I'm all for runners becoming professionals, although there are some I'm sure who might feel that being a miler is not a suitable lifetime ambition, who might be disappointed their son isn't a nuclear physicist instead, who cannot see sports as a profession.

I don't hold with that. We are given our life empty and must be continually occupying it, filling it with what we can do best, specializing in that vocation which fits our body-mind-spirit design. There are some to whom this means being a miler, just as others become third basemen or heart surgeons. For them to know the mile is to know life. Without it perhaps they would never live completely.

Professional track will permit this. It will make possible what is now open only to students and service men and those subsidized by family or friends—

the freedom and time to pursue this vision.

Pro track allows the possibility that the runner can continue after graduating from college or getting out of the Armed Forces. At the present time most runners quit for financial reasons long before reaching the physical peak that comes at about age 28 or the psychological maturity that comes in the early 30s.

Perhaps the idea of an individual dedicating his life to a quarter-mile track distresses you. It shouldn't. Running is an art and a science. It embodies all we know about the physiology of health and much that we have yet to learn about response to stress. It presents a challenge both physical and psychological and a sense of living at the height

of one's powers. It is an excitement at times, a contentment at others.

The runner may learn breathing from an opera singer, flexibility from a ballerina, and pace from a racehorse. He may explore the theory of pain, the values of nutrition, the possibilities of psychology, the influence of the weather. He may learn about mechanical efficiency from the physicist, about his constitutional strengths and weaknesses from the geneticist and the anthropologist. He will find what all professionals come to know—that the specialist eventually ends up utilizing the knowledge of many other specialists.

So pro track should come regardless of its effect on the Olympics or college track. Not until a person becomes a professional and accepts the commitment it implies can he begin to realize his potential. Not until a person becomes a professional will his education be more than rapidly vaporizing knowledge and opinion on a variety of subjects. Not until a person becomes a professional will he do anything as if his life depended on it.

They pointed for years for this moment at Munich—the 10,000 final. Hoping to peak for this race were (l-r) Josef Jansky, Miruts Yifter, Emiel Puttemans, Lasse Viren (partially hidden), Mariano Haro and Dave Bedford. (Tony Duffy)



COMING TO A POINT

by Hal Higdon

Hal Higdon is a 41-year-old freelance writer living in Michigan City, Ind. He has set American records and won national championships both as an open and veteran runner. One of his many books is "On the Run from Dogs and People," a humorous and thoughtful collection of running lore.

As runners, sometimes we emerge from a race victorious over ourselves. Sometimes we emerge victorious over the clock. Sometimes we emerge victorious over others. Sometimes all three. Any victory or personal achievement can prove satisfying. But there is a subtle difference between racing down the home straightaway, fighting another runner for 17th or 70th place, and fighting him for first—particularly at a national championship. Only those blessed enough to have experienced this sensation can fully appreciate it.

When I turned 40 I realized again the thrill of total victory. It had happened in 1971 when the onslaught of time finally qualified me for Masters competition and converted me instantly from an also-ran to a winner. I won the 10,000 meters at the US Masters track meet in San Diego. I won the Masters cross-country title in Detroit. I won at Pike's Peak and Springbank, and set records in all my races.

What to do for an encore in 1972? Well, having reached the top I could try to remain there. That could prove difficult because, although unsure of their identities in January of the new year, I knew a new crop of good "young" runners would have turned 40 by July. My margin over Peter Mundle at San Diego had been maybe half a stride. Virgil Yehnert had finished only 100 yards behind me at Detroit. Should I merely retain my fitness, the slightest extra effort on either of their parts for the coming year would reconvert me to an also-ran. The game we played as kids was King of the Hill, and someone always wants to knock you off it.

But there was increased incentive

for 1972. In addition to the Masters track meet, there was the Olympic marathon trial the following weekend in July. The organizers in Eugene, Ore., had established a qualifying standard of 2:30, thus it would be an achievement just to make that field. And the master of Masters, David Pain, was planning a four-week running tour of Europe for late in the summer.

The tour sounded tantalizing, but it also sounded expensive. Perhaps most discouraging, I had a time conflict caused by a book contract. My attendance on Pain's tour seemed improbable, although I didn't entirely rule it out.

I decided, however, to point for the US Masters track meet in San Diego in July. "Pointing" became an important part of my strategy for the 1972 season and is the subject of this first of two articles on training techniques. The other article—"Peaking"—will appear in the *April Runner's World*.

But first a disclaimer: I would not recommend that any other runner train exactly like me—or for that matter, like anyone else whose training schedules they may have studied. There are too many variables involved. For one thing my training is geared to a climate where the winters are fearsomely cold and the summers brutally hot. Old age and lingering ailments earned during a misspent steeplechasing youth limit the type of work I can do without risking injury. Simple topography dictates my training areas. If there were a Tartan track across the street, I might run in circles more often than I do. As it is, there is a lake across the street, much too large to circle, but with its shore perfectly suited for long distance runs. In addition to the shore, I also have nearby woods, golf courses, and many, many back roads.

I distrust these athlete biographies I see in publications such as *Runner's World* where someone lists a typical week's training schedule and you know good and well he never did another week like that in his life. I've got a week of training in my past history so tough that

it would put Frank Shorter in the hospital. Why not? It put *me* in the hospital. During 1972 not one single week of my training exactly duplicated any other single week. So do not follow my footsteps and attempt to match my times. Regard the patterns. And consider the philosophy of running involved.

Which returns us to the subject of pointing. Experience tells me that I obtain the best competitive results when I can plan my training well in advance of competition. This is known as Higdon's first law:

● *Start your race six months before the gun goes off. In short, plan ahead. By planning I can work up to a peak. When the big race comes I want to be at a high point, both physically and psychologically.*

This idea is neither new nor revolutionary. The YMCA jogger who decides he wants to run in the Boston marathon usually points his training toward that goal. He may even be sophisticated enough to make his training progressive: covering 100 miles this month, 120 the next, then on to 140, steadily improving his condition and increasing his chances of finishing. The same is true on a different scale at the other end of the competitive spectrum. At the present time we undoubtedly have many athletes in the United States already training for the Olympic Games in 1976. So plan ahead. But methods exist by which you can maximize your efforts while pointing for a single race.

Let us consider motivation. Running is only one small part of my enjoyment in living, and I cannot afford to (do not want to) devote two or three hours every day for an entire year to train for one event. I don't possess that much motivation. To become an Olympic champion, the price would be worth it; to become the fastest 40-year-old man on the block, no.

However, since I never allow myself to get too far out of shape, I can at least approach top condition with a minimum of hard work—say two months

worth. My motivation will carry me through that much intensive training during which time I may spend two or three hours a day and drain away energy that might be applied to my work.

● *But if you can afford to train intensively for only two months, you better mobilize your motivation so that your intensive training comes prior to the big race. You might refer to that as Higdon's second law.*

If the big race is scheduled for early July and you intend to spend two months of intensive preparation, then logically May and June become the key months. Unfortunately, logic doesn't always prevail. For one thing, in order to obtain entry into the Olympic marathon trial I had to first qualify by running under 2:30. In addition, the weather begins to deteriorate in the midwest in June, when days become hot and unpleasant for long distance training.

Thus I decided to move the advent of my intensive training period to mid-April and conclude it in mid-June. I knew that in addition to being well trained I would need to obtain good competition on a fast course in acceptable weather to better the 2:30 qualifying standard. I figured I would take two shots at it: once in New York in mid-May and once in South Dakota in mid-June. I figured that if I came up short of the time standard in the first attempt, I would have another chance the second time.

Now for Higdon's third law:

● *He who counts training mileage should have analgesic balm rubbed into his jock.*

We long since have passed the point of diminishing returns related to miles run in training. Back in the 1950s we used to hear tales that Young John Kelley (now probably known as Middle-aged John Kelley) was running 80-90 miles a week and we considered that feat Herculean. Now in the '70s, runners such as Derek Clayton, Gerry Lindgren and Dave Bedford approach 250 miles a week. Is the effort worth it?

I don't think so. Excessive mileage in training often doesn't permit you to run faster times. It merely allows you to recover faster after you finish in the same time. Unfortunately, it sometimes also causes you to injure yourself so you don't even start. It is not so much how many miles you do that causes success or failure, but what you do in those miles. I feel that 80 miles a week provides sufficient conditioning for most marathon runners. If you want to run marathons faster, step up the tempo instead of the mileage. That's not a Higdon law, but you might remember it anyway.

Nevertheless, as I prepared for the 1972 season, I counted mileage. I did this merely to record what I had run, not as part of a previously preconceived plan to run so many miles a week. And I did this for an important psychologi-

cal reason which may be part of what motivates the Claytons, the Lindgrens and the Bedfords to hit 250-mile weeks. I wanted to *know* I was doing 80 miles a week, because if I still felt reasonably comfortable at the end of my workouts it meant I was in shape.

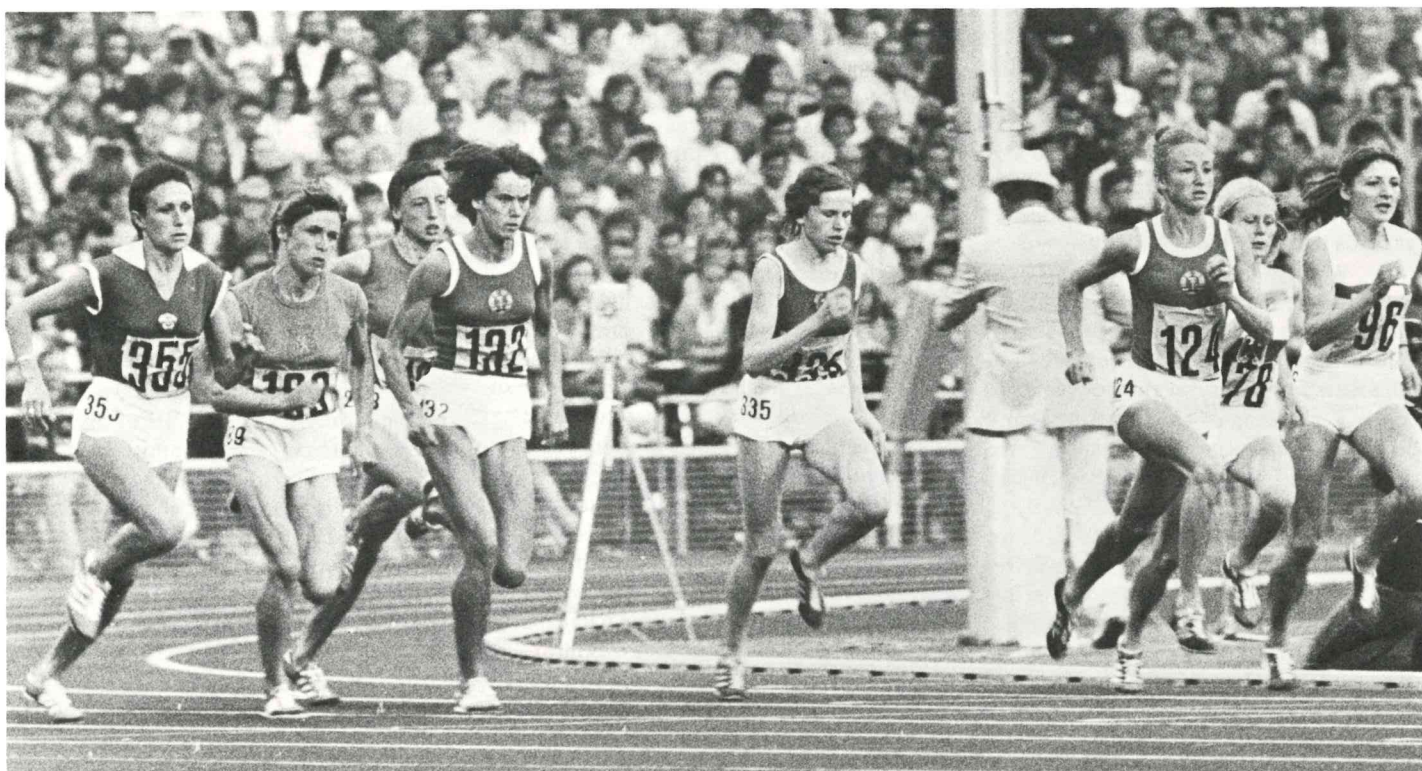
● *It is not enough to become a tiger; you must also know you're a tiger. Put that down as Higdon's fourth law.*

One method of being able to recognize when you're in shape is by recording your workouts. Beginning in mid-February, I noted my daily workouts in a tiny leather datebook. My workout pattern varies so much during the year there is no such thing as a typical week in a Higdon notebook, but here is the first one:

Feb. 13—1 miles jog; basketball playing. Feb. 14—3 miles fast. Feb. 15—2 miles. Feb. 16 AM—2 mile jog; PM—9 miles, steady and hard. Feb. 17—5 miles. Feb. 18—2 miles. Feb. 19—nothing.

That added up to 25 miles of running, hardly the example you discover in most athletic biographies. But you can maintain fairly good condition on this type of schedule—provided it is

Lyudmila Bragina (alone in the center) timed her "point" perfectly: three world records in her three Olympic 1500 races. (Mark Shearman photo)



combined at other parts of the year with more ambitious work. That would come later. To anticipate a question someone might ask: "Why did you take a double workout on Feb. 16, a Wednesday?" Answer: Because I felt like it.

During the three winter months following my cross-country victory in Detroit, I had done mostly maintenance work of this sort. Sometimes I would take long distance runs and in January I even had run one marathon, content merely to finish in over three hours for the conditioning it would give me. Six days later I ran a 4:32.5 mile in an indoor track meet. I competed on occasion, but mostly I was hoarding my motivation, recharging my batteries for a later time. Finally in March I flipped the switch and began to train with at least a bit of dedication. For example, this week during which I covered 45 miles:

March 5 AM—5 miles; PM—7 miles, good pace. March 6—7 miles, strong pace. March 7—9 miles, strong at start, but fading somewhat near the end. March 8 AM—1.5 mile jog; PM—7 miles. March 9—indoor track, 3 x 440 (63, 65, 66). March 10—nothing. March 11—open track meet, 880 in 2:10.4, mile in 4:41.

The times set in that track meet would hardly impress anybody, but that day was merely another workout. The relative slowness of the times was an indication, however, that my lack of dedication during the past three months had begun to catch up with me. I also may have been somewhat tired after a week of work harder than I had been doing. As for the 4:41 mile, five months later I would pass the mile point in a five-mile race in 4:41.

A word now about weight control. One of the important benefits of hitting high mileages is that you burn off calories. However, there is an easier method: dieting. To control your weight, limit your intake of calories. I can't give you the exact date, because I failed to note it, but midway toward my goal I began to limit myself to eating only at meals. I am a great nibbler and can go through a package of cookies in half a day, but I stopped nibbling. My weight began to drop.

Over the years I have discovered that my swiftest races have come when my weight has been roughly 137 pounds. Originally I interpreted my success as being a result of the hard training that coincided with the weight loss. Lately I have decided that weight was a more important factor in the equation. If you don't believe five pounds can make the difference then consider how

fast you could run a mile tomorrow if you had to carry a five-pound weight on your back.

During the 1972 season I usually didn't bother to record my weight regularly, even though I regularly weighed myself after each workout. Later in the season, however, I would make a single notation in my journal: *Wt. 135!!* The exclamation points were to express my surprise and delight. Two days later I set an American Masters record for 5000 meters.

Of course, you can weigh too little. You want to reduce excess fat, but the important word is *excess*. In 1964 I had run a 2:21 marathon in April at Boston. Toward the end of May after one hot-weather workout, I recorded my

“. . . Excessive mileage in training often doesn't permit you to run faster times. It merely allows you to recover faster after you finish in the same time. Unfortunately, it sometimes also causes you to injure yourself so you don't even start. It is not so much how many miles you do. . . but what you do in those miles.”

weight at 131. Two days later my left knee began to bother me, one of those nagging little injuries that comes and goes but inhibits your training. I never ran another good race the rest of that season. Now when I see my weight getting too low, usually in the summer months when dehydration during long workouts becomes a factor, I start drinking Pepsis after workouts, eating those cookies, and piling on the ice cream for dessert.

A slight excess of weight at certain times of the year, of course, may not necessarily be bad. During the winter a few extra pounds of fat may help keep you warm. Five pounds of weight around the middle may serve as a form of resistance for your training. But you can only control your weight if you watch it and know at one point of the year it should hit the optimum level. So Higdon's fifth law:

● *Contemplate not only thy navel, but what lies under thy navel. And consider the possibility that you may be able to train less if you eat less.*

By mid-April, I was beginning to work out more extensively. During March I had averaged just less than 50 miles a week and during April I would average around 60 miles a week. I also

had begun more frequently to train twice daily as follows:

April 9—7.5 miles on beach. April 10 AM—4 miles beach; PM—7.5 miles beach, fast last half. April 11 AM—4 miles beach; PM—1 mile road. April 12 AM—7.5 miles beach; PM—45 minutes cross-country. April 13—AM—2.5 miles beach; PM—38 minutes cross-country. April 14—13.5-mile cross-country. April 15—nothing, at least in the way of running; canoe trip over the weekend.

Occasionally people ask the rationale for certain distances run in practice. In the case of this week, the explanation is easy. If I turn left when I leave my driveway and head down toward the beach I can run westwardly until I reach the Michigan City breakwater before turning back and the result is 7.5 miles. If I turn right I can run eastwardly until I reach a seawall, thus four miles. Later in the season beach erosion would reduce that short course to three miles, but small differences in miles aren't that important.

This one week, however, would be important because, although I didn't realize it at the time, by running 13.5 miles to the neighboring town of New Buffalo and back for the first time on Friday, April 14, I had established what would become a key workout in the next month.

● *Higdon's sixth law is that workouts should become progressively tougher.*

Over the years as I would more closely approach my point of maximum toughness, the general level of my training would increase in severity, but sometimes this is difficult to measure by counting mileage alone unless you have certain key workouts, or index days.

For instance, back in 1956 my key workout involved quarter-miles on a track with a fast 440 jog between. I began in early spring doing 10 x 440 in 70 seconds. Each week I would add one more 440 and drop the average by one second with an ultimate goal being 20 x 440 in 62.8, having three of my fastest races the following week. Unfortunately I had chosen a progression that was too ambitious. I would have been smarter either trying to progressively run *more* quarters, or run them *faster*, but not necessarily both. (Another factor was the law of diminishing returns. The closer you approach your maximum speed, the more difficult is it to shave seconds. A one-second drop from 70 seconds is less difficult than a one-second drop from 60 seconds. Of course, it may be easier to improve that second if you have 50-second speed than if your personal record happens to be 60 seconds.

But a simple knowledge of math tells you that the percentages of improvement are different from 70 to 69 than from 60 to 59.) I reached my peak a month too early in 1956, but I was not to repeat that mistake in 1972.

On April 14 I began a routine long distance workout. The first time I ran this course I didn't bother to time myself. During later workouts I began glancing at my watch and determined that I was covering roughly a half-marathon in distance. The course was fun; it was challenging. It seemed an ideal workout on which to build a progression. I decided to select as my goal: 1:15, which would be the pace I would need to maintain in a marathon to qualify for the Olympic trials.

If I wanted to go out and race that course, I might have equaled that time very early, but I was more interested in developing a progression which would prepare me psychologically as well as physically. Check back for Higdon's fourth law.

Thus the first few times I tried the course I purposely went at it slowly. I would just roll out my back door, wearing full sweat gear, and warm up as I ran. If I had to stop for the call of nature, I would make a leisurely pit stop, wasting several minutes. (I utilize biodegradable leaves by the way.) Later, as time became more important, I improved my pit stop record to 15 seconds, then eliminated it by jogging a mile to warm up before embarking on my timed run. I wore shorts and tee shirt as though in a race. Through repetition I became familiar with the course and could run it faster knowing where to put my feet, how to lean on a turn, when to relax. Even artificial improvement can help your psychological attitude. Regard the progression:

April 14—untimed. April 18—1:35.
April 20—1:28. April 24—1:40ish. May 1—
1:24:15. May 3—1:20:40. May 5—1:18:50.
May 10—1:17:28. May 12—1:17:00. May
16—1:14:52.

On only one occasion did I fail to improve and that was the day after a track meet. I was able to achieve steady progression partly because I had checkpoints on my run. These were at no particular distances, but they permitted me to gauge my speed relative to other workouts.

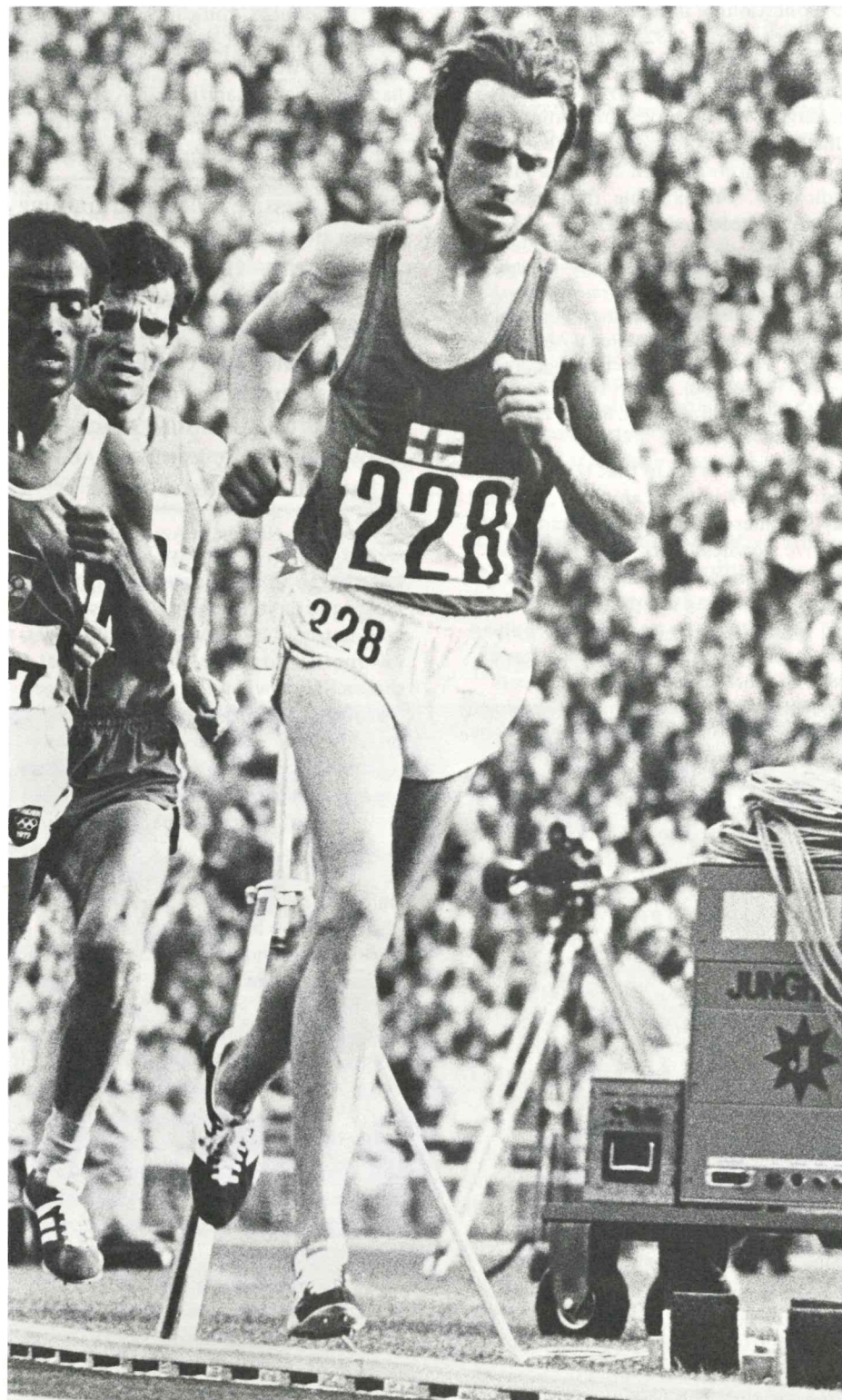
There was no pattern as to how often I would run this key workout. Sometimes I would go once a week, sometimes three times a week. The weather often became a determining factor. Particularly toward the end, considering the psychological effect failure might

have, I would not attempt this workout unless I felt I had a good chance of realizing the expected improvement.

On Sunday after a week of work in which my mileage was 82, I raced. This was May 21. Several months earlier I had planned to compete in the Nation-

al AAU marathon in New York this same day and try for a qualifying time, but other commitments kept me from making the trip. Had I competed in New York in a race blessed with fairly good weather I might have bettered 2:30, but instead I remained home and ran the In-

Within the month he pointed for, Lasse Viren won two Olympic titles and set two world records. (Tony Duffy photo)



diana AAU one-hour run.

Fourteen years earlier I had set an American record for that event, running 11 miles 227 yards. It was the first time that the record had been broken in roughly 40 years, mostly because nobody ever competed in the event. We revived the race at the University of Chicago in 1958 and my setting the record initiated a fad. In 1963 after the event became a National AAU race I won an AAU gold medal and had a career best of around 11 miles 800 yards. Now in 1972 Peter Mundle held the *veteran's* mark at 11 miles 629 yards, one I considered the toughest on the books. But when I tried to better Mundle's record, the weather failed me. The day was sunny and warm. Several competitors who had run the same event several weeks earlier couldn't come within a quarter-mile of their previous distance. I placed a close third, going 11 miles 270 yards.

I still hope to better Mundle's one-hour record if the right opportunity presents itself. Last summer one of the readers in *Runner's World* criticized Ray Hatton for expressing a desire to break all the veteran's distance records.

"The goal of the over-40 runner is certainly more important than (breaking records)," wrote the reader. "It is the joy of competition for competition's sake, the thrill of personal satisfaction of being able to perform at a level so far beyond the average male of 40-plus."

I thought the letter presented a contradiction, since how can you separate records from competition and personal satisfaction (even if that record is a 7:00 mile, or going four times instead of three times around the block)? Most runners, veterans and otherwise, set personal records all the time. The difference is that when some of us set "personal" records they also happen to be meet, American, or even world records.

I had bettered my 1:15 goal on my half-marathon course, so rather than fight the law of diminishing returns trying to work down to 1:14 or 1:13, I established a new course (17 miles) and a new goal (1:42). The first time I ran this course, on May 18, I couldn't even finish. My lungs were burning. Several times I had to walk. My breathing was labored. Finally I turned around, short of the halfway point, and staggered home in extreme distress. The season nearly ended for me that day—at least psychologically. I was depressed. At first I thought myself ill, but my children were complaining of burning lungs too.

Later I learned that the Chicago area was under an air pollution alert and

what had halted my workout was a mid-west version of the Los Angeles smog. I live 50 miles from Chicago and 25 miles from the nearest large industrial complex (Gary), but it still had affected me—and everyone else in my neighborhood that day. Don't let anyone tell you that air pollution isn't a serious health problem. Don't believe the pleas of industrialists who say that pollution controls are costly. How valuable is life?

The new course was merely a new loop that connected into the old course, but I varied the workout by running part of the old loop backwards. You'd be surprised how completely different an otherwise familiar cross-country course looks when you start to run it in reverse. In fact, that first day I found myself tripping several times over minor snags and roots on paths I had sprinted unhindered over before. My progression went as follows:

May 18—DNF. May 19—2:00:30.
May 26—1:58:10. May 30—1:50:00. June 1—1:58:15. June 4—1:47:38. June 6—1:40:50.

I had failed in my progression only once, on the day after I had run a hard 10-mile workout with a friend. He was a runner who couldn't have finished within a mile of me during a race of that length, yet he still could extend me in practice. I might have worked my way down to my goal more gradually, but I was beginning to run out of time. I established a new course (20 miles) and a new goal (2:00).

At this time I reached my high point in mileage, and in one week covered 97.5 miles. Despite my having come within a few miles of hitting 100 miles in a single week, I resisted the temptation to jog a few extra miles to put me over the top. On two days during the week, I had done next to nothing. This leads us to Higdon's seventh law:

● *You can go backwards while appearing to jog forwards. What this means is that yes, Virginia, there is such a thing as overtraining. Sometimes you can achieve more for yourself physically by taking a day off. You will be able to train harder following a day of rest, or comparative rest.*

About two years ago Ron Hill said in a *RW* interview that he had trained daily, every day, for six years—without missing a single day! Incredible. I have this picture of Ron Hill crawling out of bed and staggering around the block, eyes glazed, thermometer still in his mouth, crutch under one arm, a cast on his ankle. What comes to mind is not

a picture of dedication, but one of fear. Likewise, Frank Shorter works out even the morning of important races. Hill and Shorter and other compulsive trainers succeed despite themselves. I understand Shorter didn't work out the morning of the Olympic marathon, which should tell him something. Don't be afraid to rest.

I left for South Dakota by car on Friday, June 16, planning to run in Sunday's Longest Day marathon and confident that I could better the 2:30 qualifying standard for the Olympic trials. There lay the rub. Higdon's eighth law is:

● *You can't fool Mother Nature. (I borrowed it from an oleomargarine commercial on television.)*

As usual, Mother Nature socked it to me in South Dakota. At the 7 a.m. starting time the temperature was 78 degrees, muggy but livable. Unfortunately the wind was howling across the prairie at maybe 25 m.p.h. Jim Vedder, a 2:28 marathoner who had graduated from Carleton College a decade behind me, started strong and quickly built up several hundred yards lead. I maintained an even pace calculated to get me to the finish line in 2:30. I caught Jim around six miles and started to pull away just as we headed into a windy five-mile section of the course. Even into the wind I held my pace, but at too great an expenditure of energy. I came past 24 miles in 2:18:30 with my goal still theoretically achievable—except that one of the last two miles was into the headwind.

With the time goal out of reach and the second-place runners nearly two miles behind, my motivation failed and so did my pace. The last half mile on the track took me nearly 4½ minutes. I finished in 2:37:23.6, a course record, but not fast enough. And an hour after the race I realized I wasn't particularly tired. If only it had been cooler. If only someone had been there to push me. If there had been no wind. If. If.

Still, there remained the US Masters track and field meet in San Diego—*or did there?*

Two days after the marathon, while hiking with a Boy Scout troop in South Dakota, I was thrown by a horse. I landed on my back. As I lay on the ground I realized that all my efforts that spring in pointing for a single race had just gone to waste.

(Next issue: "Peaking," wherein Higdon describes the training methods that led to one world and three American over-40 records during the US Masters European tour.)



Tenths of seconds mean everything in sprint championships. Time-shaving Soviet research produced Olympic 100-200 champion Valeriy Borzov (932). (Mark Shearman photo)

THERE'S SPEED IN THE HILLS

Soviets point to uphill and downhill training as the road to sprint breakthroughs.

The discouraging thing about the speed races—the all-out bursts of a quarter-mile and less—is that improvement comes so slowly. Plateaus are so easy to hit and so hard to climb off of, the idea has grown up that speed is innate—that it can't be improved. (See "Are US Sprints Ailing?" Feb. 73)

Improvement margins are small in the shortest races, it's true, but they can be exploited. Fractions of seconds can be scraped away, and the best answer on how to do it may lie in the hills. That's what the Soviets are saying, anyway, and they're doing more research on speed than anyone else. (See "Scientific Sprinting," Jan. 73)

There are five main attributes in sprinting. One is that elusive concept called "basic speed." To some extent, it is fixed by heredity. But the other four factors all can be improved: explosive power, sprint-endurance, running form and relaxation.

When the Soviets found that Valeriy Borzov "lacked speed," they con-

centrated on building not raw speed but staying power. His training emphasized a special combination of endurance work: high numbers of fast sprints with long recoveries, repeat 800-meter runs and half-hour cross-country workouts. "So far," Borzov said in the January *RW* article, "there is no reason to believe such runs hurt my speed."

Borzov apparently does more training than is customary for sprinters, and he gives more attention to basic endurance. Otherwise, his methods are fairly orthodox.

Other training ideas coming out of the Soviet Union and its satellites aren't so typical. Because they're so well backed scientifically, they can't be ignored.

Many of the radical techniques have to do with hills—fast running up hills and down hills. Working up inclines is supposed to develop power and a degree of endurance. Going down, a runner can go faster than normal while staying relaxed and improving his stride pattern.

Professor Nikolai Osolin has studied ways of building speed. He writes, "Speed in its various forms should constantly improve with the athlete's training age. Unfortunately, however, we can frequently observe cases of unnecessary leveling off in the development

of speed due to wrong training processes."

Osolin explains that by constantly repeating conventional sprint training, the movements become automatic. "A dynamic stereotype is established which slows down the improvement... A speed barrier develops and the athlete's performance fails to progress."

He says the way to break through the barriers is by introducing unusual circumstances into training. He advises: (1) "artificially created difficult conditions, followed by the same exercises under normal conditions" (i.e., uphill then flat running); (2) "using exercises under more favorable conditions; these exercises allow for speed and cadence of movements which is not possible under normal conditions" (downhill running is one way to accomplish this).

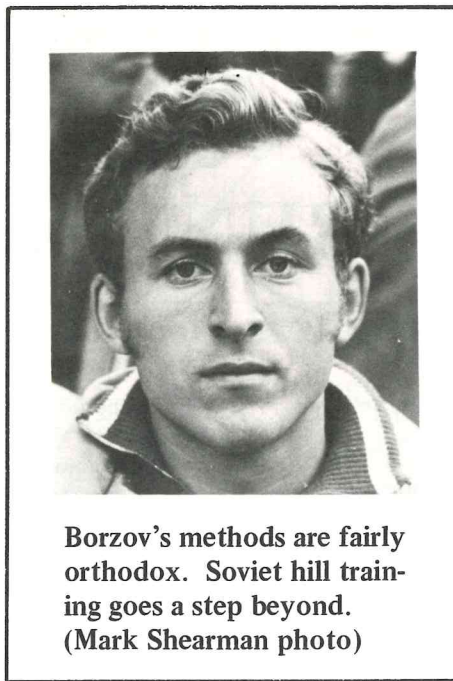
Researchers at Tartu University in the Soviet Union tested nine different training methods. They ranged from long steady runs, to repeat intervals, to combinations of techniques. One of the training styles studied was repeat running on an uphill slope.

Ninety-four previously untrained athletes went through the testing. They were split into nine different groups, and at random placed on the different training programs. They worked out for six weeks, three times a week, and took time trials to check their progress.

Overall, the group training uphill performed best. These runners improved by an average of 0.7-second during the test period. At 400 meters, the uphill runners shaved their times by 8.1 seconds. At 800 meters, they were 27.6 seconds faster at the end. Other forms of training did as well or slightly better at one distance or another, but none was consistently as outstanding.

Downhill running wasn't part of this test. But another team of Soviets had checked this earlier. They did their research on a 2-3% grade, and measured changes in stride frequency—a good gauge of speed. Immediately after downhill sprinting, stride frequency on a flat track increased by an average of 17%.

The Yugoslavs have experimented with combining uphill and downhill. National Coach Milan Milakov reported a decade ago in *Track Technique*, "It is possible that training on the downhill slope will accomplish an increase in frequency of strides, increase in length of stride and adjustment to speeds faster than those attained on the flat surface. Training on the uphill incline will increase leg strength, knee lift, rhythm and speed-endurance. By training on the combined downhill-uphill surface, the rhythm can be changed and all the



Borzov's methods are fairly orthodox. Soviet hill training goes a step beyond.
(Mark Shearman photo)

aforementioned attributes accomplished—for instance, by running downhill to develop speed, uphill to develop strength, and then downhill for relaxation running."

Milakov tested three groups. The first stayed on the flats. The second did

uphill and downhill running. The third did all three types of running, and produced the best results. "This experiment showed," Milakov said, "that the group trained on the combined surface had not only the necessary qualities but also the experience of running on a regular flat surface."

That is one of the limitations on hill training. It works best in combination with flat work. Nikolai Osolin says this is necessary to "stabilize" performance.

The Yugoslavian national coach said the hills used shouldn't be extreme. In fact, they are quite mild as hills go. "Research indicates that the downhill slope or incline should not be more than 2.6 degrees from the horizontal," he wrote. "The uphill slope should not be more than 3.4 degrees."

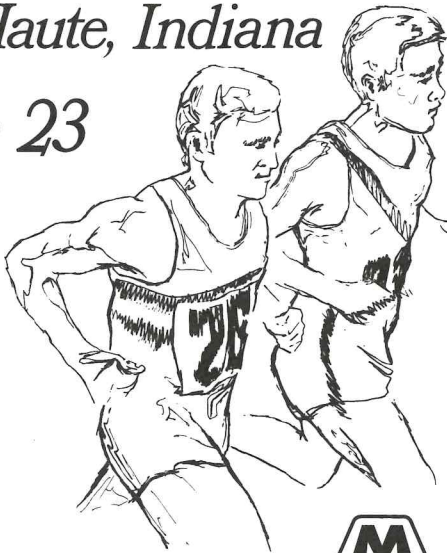
Osolin warns of downhill running that "the method is only reliable when it develops a new speed level which appears within the reach under normal conditions. Downhill sprinting must not be carried too far."

In other words, eight-second hundreds do little or no good, nor do hands-and-knees crawling up nearly vertical sand hills. At best, moderate hills give an extra little push that may dislodge the sprinter from his plateau.

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An engineer interprets concepts of physics and tells their significance in running terms.

APPLYING RUNNING POWER

by C. L. Livingston

Chuck Livingston works as an engineer at the Bell Helicopter Company in Fort Worth, Texas.

You probably don't need to know a lot about power to do what you want to do as a runner. However, a few concepts might be helpful, and we ought to get rid of some erroneous "common knowledge." Without bogging down in a lot of physics and physiology, let's take a look at the runner's side of power.

"Power" has a very precise definition in the physical sciences. It is the quantity you get by multiplying a force acting on an object by the velocity of the object *in the direction the force is acting*. If the subject is not moving, the exerting force is not producing any power. If the object is moving, but in a direction perpendicular to the force, the force still is not producing any power.

The units of power are foot-pounds per second (ft-lb/sec) or, where there is lots of it, horsepower. One horsepower is equal to 550 ft-lb/sec. A well-conditioned man can produce, at most, about half a horsepower for several minutes.

Runners should understand what power is *not*. It is not a runner's speed over a level course multiplied by his weight, because his weight is perpendicular to his speed. This does not imply, however, that he doesn't exert power. Three applications of it are important to him. Two are similar: the power aspects of running up and down slopes, and running upwind and downwind. The third is the relationship of the runner's physical condition, maximum heart rate and maximum power output.

HILL RUNNING

You produce power when you climb hills, because you are moving vertically. When you run downhill, you conserve power by the same amount. It takes no power to run level. This of course does not mean it isn't hard to run level—just that no physical power is being expended.

The power involved in going up and down hills can be calculated as follows:

Formula One:

$$\text{Power} = \text{weight} \times \text{speed} \times \frac{\text{grade}}{\sqrt{1 + \text{grade}^2}}$$

(in foot pounds per second)

(Grade of the hills is defined as the change in height divided by the horizontal distance traveled.)

A motorized treadmill which is adjustable for grade and speed is one way of measuring ability to expend power. Since this ability is strongly related to endurance capacity, it gives a good indication of your overall running condition.

Figure 1 charts the relationship among weight, speed,

grade and power. For a given level of physical condition, power exertion abilities remain nearly constant. Weight is an important factor here. The dashed lines in Figure 1 illustrate the effect of weight at a power level of 220 ft-lb/sec (0.4 horsepower). If you weighed 170 pounds, you could go up a 16% grade at 5.5 mph. If you were to lose 20 pounds of body fat, you would be able to produce the same power but could then climb the 16% grade at 6.3 mph. This is 1.4 minutes per mile faster. It is important to get and stay lean!

WINDY RUNNING

Runners must exert power to overcome wind resistance—or "drag force." We can calculate the wind drag for an average man at sea level by:

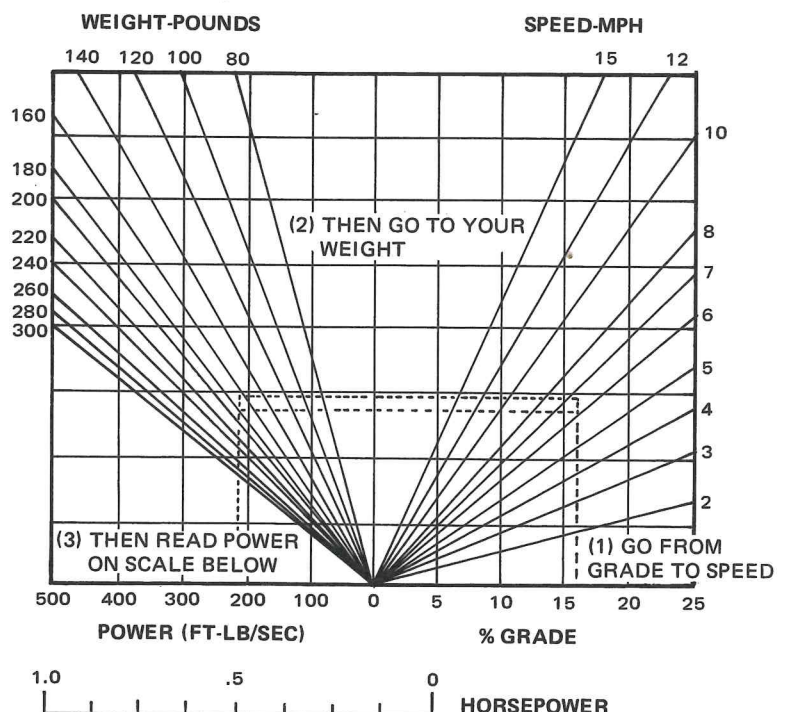
Formula Two:

$$\text{Force/wind} = 0.022 \times (\text{velocity of wind} + \text{velocity of runner})^2 \text{ pounds}$$

(Note: velocities are in miles per hour.)

If you're running at a 6-minute mile pace (10 mph) into a 5-mph headwind, the wind speed relative to you would be 15 mph. Similarly, the wind speed relative to you in a 5-mph tailwind would be 5 mph. Winds from the side do not require any power.

FIG. 1. SPEED, SLOPE & POWER EXPENDED



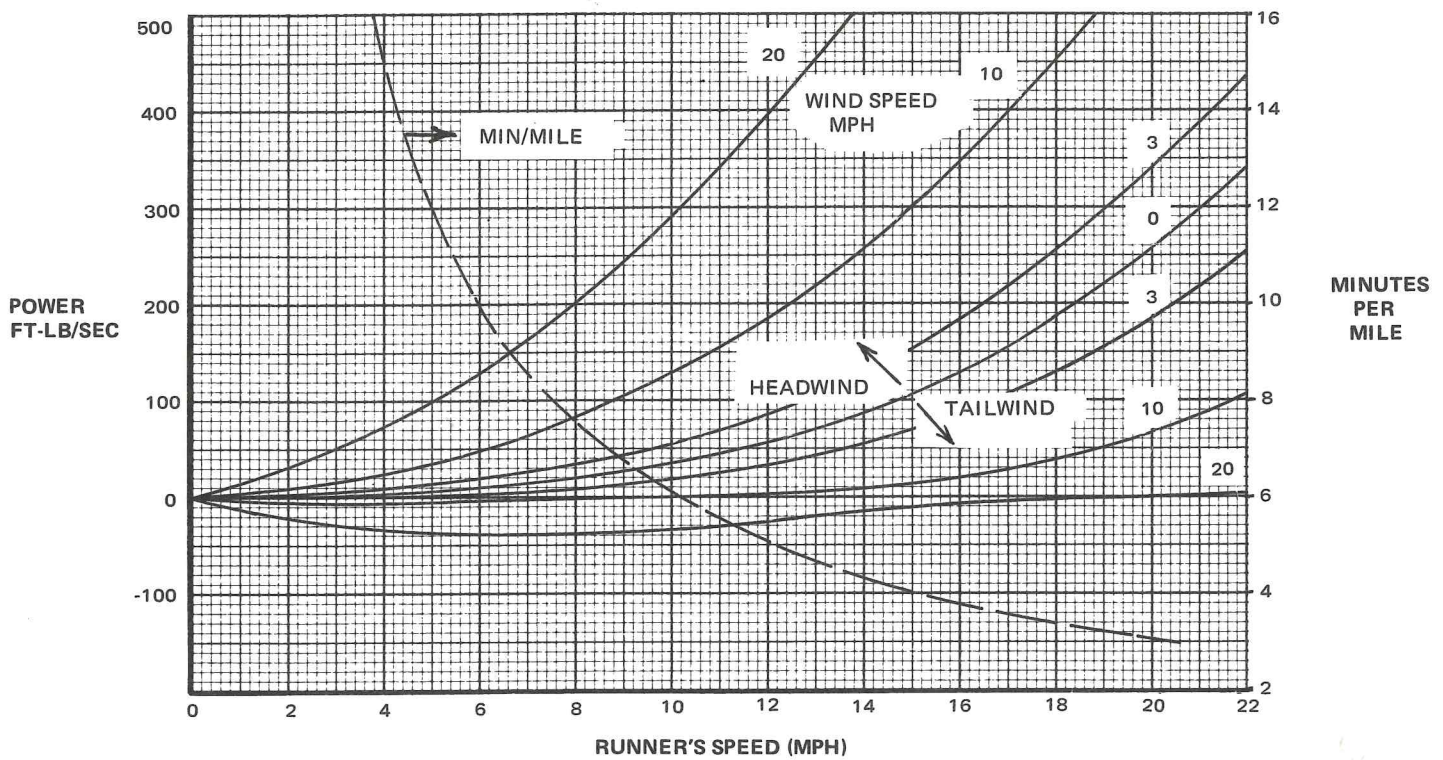


FIG. 2. EFFECT OF WIND AND RUNNING SPEED ON POWER EXPENDITURE.

Figure 2 charts power expended at various running and wind speeds. The most striking thing in Figure 2 is how much more power it takes to run into the wind than with the wind. For a 10 mph running speed, the power you expend with no wind is 32 ft-lbs/sec. To maintain this speed in a 10-mph headwind, you must expend 127 ft-lbs/sec—four times as much power. You are only traveling at 6-minute mile pace, but you're putting out sub-4-minute power! On the other hand, a 10-mph tailwind only saves you 32 ft-lbs/sec since the wind power you must produce is zero.

PHYSICAL COMPLICATIONS

Running a level four-minute mile with a constant 15-mph tailwind theoretically requires no power. Clearly this is not so. There is more to running and power than slope and wind. Additional power—which I call “base power”—is expended to support the body and to move the legs and arms. Only with considerable difficulty can we use the mechanical concepts of power to analyze base power. The weights and vertical speeds of the upper and lower legs, feet, trunk, arms, etc., must be measured. This requires high-speed movies of stride, complicated analysis and expensive equipment.

However, I feel nature has given us a much easier method of analysis for forces being exerted with no velocity. This method is based on the relationship between heart rate and power expenditure. You can easily demonstrate this by holding a 10-pound weight at arm's length and measuring the change in your heart rate.

Figure 3 shows the results of a stress test which used a motorized treadmill to establish the subject's power at different speeds and slopes. The heart rate and electrocardiogram were recorded every minute, and the blood pressure every five minutes. Subjects maintained each power level for one minute before moving to the next. The striking feature of Figure 3 is the straight line that the plotted points form.



Matt Centrowitz's jersey has the answer to cross-country hill running—"Power." (Steve Sutton)

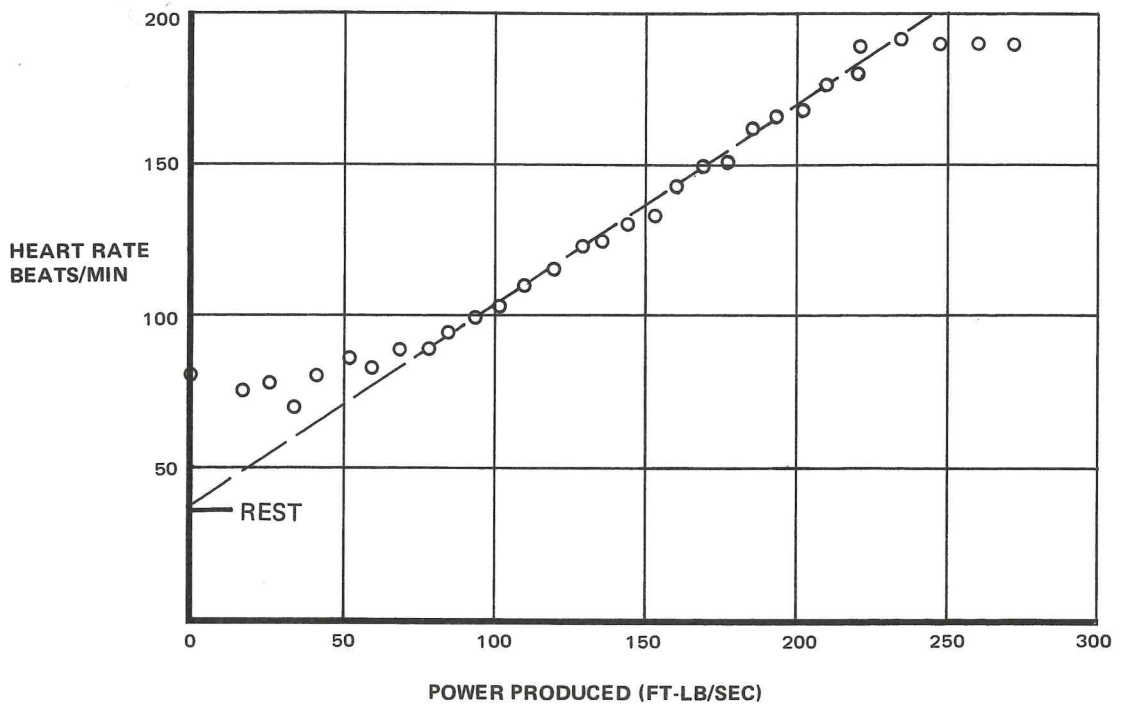


FIG. 3. RELATIONSHIP BETWEEN HEART RATE AND POWER

The high heart rate at the beginning (low power) may have resulted from the base power needed to walk and from some initial fear of falling off the treadmill while adapting to its movement. The constant heart rate near the end of the test (high power) probably indicates the subject was at peak heart rate.

The effects of stride length probably are similar to the effects of cycling rate. S. Dickenson reported in the *Journal of Physiology* over 40 years ago that cyclists were most efficient at 70 strokes per minute. At 90 and 44 strokes, efficiency decreased by 10%. These rates probably would change with improved physical conditioning of the same individual, and would vary between individuals. For running, one would expect a higher rate for best efficiency, though I'm not aware of such results. This does seem to indicate that you can change

your stride rate over a fairly wide range and not notice a substantial shift in base power expenditure.

Remembering that power is weight times vertical speed, you can see that the vertical motion of a runner with a bouncy stride costs him power. Since this leaves less power for winds and grades, the bouncy runner will tire faster or run slower than the equally conditioned (same maximum power capability) smooth runner. Conversely, a smooth runner will require less base power since his head, neck and trunk will have little vertical motion. It pays to work on a smooth stride.

That is not all there is to say about the human body generating power for running. But perhaps we'd better save any more detailed discussion for the physiologists.

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WP

by Joe Henderson

The saga of the customized shoe insert goes on. We've already had articles on what it can do for knee injuries (Sept. 71) and for achilles tendon problems (Sept. 72 and Jan. 73). Now it promises relief in another area—heel bumps. They may sound minor, but they knocked Marty Liquori out of a whole season of racing last year. Numerous other runners are growing them without realizing what is happening. This is a warning from a sufferer and his doctor about what can happen and what can be done. Steven Subotnick, a podiatrist, is a professor of foot surgery at the California College of Podiatry in San Francisco. He is currently doing research into running injuries. He has no shortage of patients.

It seemed so minor. I wore a new pair of street shoes to dinner, not having them on more than a few hours. The next morning my left heel was sore, but of course that didn't stand in the way of a run.

At first I called this a bruise and refused to accept the fact that it was anything more serious than that. This was my good foot. All the trouble I'd ever had was with the achilles tendon on the other side. I kept running.

One full year, two long layoffs, two podiatrists (one helpful and the other not), many doctor bills, one pair of molded plastic shoe inserts, no speed and no painfree steps later, I'm still running. But I'm not sure how much longer it can last like this.

An ugly lump has grown on the heel that once was nearly smooth. It glows red from the irritation and inflammation inside. I've since learned that this is an ailment called bursitis and that it often hits runners in their heels. But why, and what can be done?

It was clear after six months of progressive crippling that something was wrong. But it was hard finding anyone who knew what to do about it.

One local podiatrist told me last fall, "You have good feet. You've just been putting too much stress on them." He said, "Take a week off." I took a week off and it didn't help much. He said, "Well, take two weeks off." There was no real improvement. He said, "It looks like you're going to need six months off."

That's when I started looking for a new podiatrist. By coincidence, Steven

Stopping painful bony growth of bursitis on the heels before they stop your running.

STEERING CLEAR OF BUMPS

Subotnick wrote, telling about his work with runners. Dr. Subotnick teaches at the podiatry college in San Francisco and has a private practice. He asked me over to one of his Saturday runner-repair sessions.

He took one look at the red, knobby heels and said my feet are a deformed mess, that I need rehabilitative exercises, an injection of cortisone in each heel, corrective supports, and possibly surgery costing \$1000 and a long spell away from running. It was the best news in years.

Subotnick works and talks fast. He took my history and measurements, made a diagnosis, gave shots and molded plaster casts for the inserts all inside of 20 minutes, plus spelling out the pros and cons of surgery.

I was the last of his patients that day. He went through nine other runners who were ahead in line. All had foot or leg injuries.

"These aren't minor complaints," Subotnick said as he listened in turn to each runner's story. "Minor complaints aren't complaints to runners. They only complain when they can't run properly."

They listed their problems as the doctor made notes on their charts: "Achilles tendon." "Top of my foot." "Shin splints." "Knee." "Hip." "Heel."

In three hours of diagnosis and treatment, Subotnick never gave the impression of wondering for a minute what was wrong with the runners, or that it could be cleared up.

One runner was worried about his

hip pain. He said he hadn't completed a workout in two weeks. He said, "The trainer at school told me I had one leg shorter than the other. He gave me a heel lift to correct it."

"Let's see it," the doctor said, picking up the boy's shoe. "I can't find it."

"Oh," the patient said, "it's in the other one. Here."

"Let me check your hips again," Subotnick said, probing his fingers into the flesh above the hip bones. Then he shook his head. "You know what your trainer did? He put the pad in the wrong shoe, making your long leg even longer and making you more imbalanced. Here, I'll make a new pad for you and put it in the right shoe. You shouldn't have any more trouble."

Subotnick told me later, "You know, that's the trouble. Some trainers, coaches, and even doctors, know what's bothering athletes. They can spot the trouble. But they don't know how to correct it. I can't knock them too much, because few of us know yet how to treat you people. We're still experimenting."

Not once, in four hours with 10 different patients, did he mention "quit running" as part of the experimental treatment.

"If you had come here 10 years ago," Dr. Subotnick said to me, "you would have saved yourself a lot of trouble." Then he thought for a second and added, "But if you had come here 10 years ago, we probably wouldn't have known what to do. We're just learning, too."

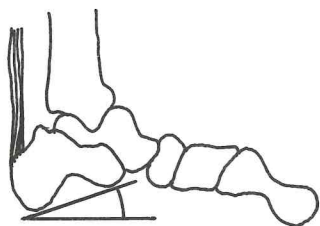
He told me what was wrong. My legs cause my feet to hit the ground at an unusual angle and roll sharply inward. The roll is the problem, Dr. Subotnick explained (see accompanying article). It causes friction at the heel. The results, after a billion or so rolling steps like this, are predictable: delicate tendons are overstretching, and bursitis develops at the point of irritation.

"Why would I get something like this?" I asked him.

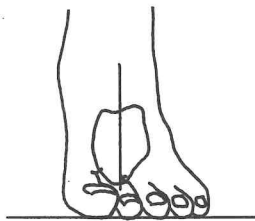
"You don't 'get it.' It's something you're born with. All you can do is blame your parents."

He said I'm not unique at all. "Deformities" like this are common. In one group of runners he tested, 90% had irregularities that could lead to trouble when extra stress is applied. These things are products of heredity, and not much can be done to change that. All a doctor can do is compensate for them by putting the feet and legs back into neutral with supports.

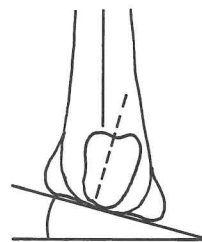
CHECK THE FEET FOR SOURCES OF HEEL BUMPS



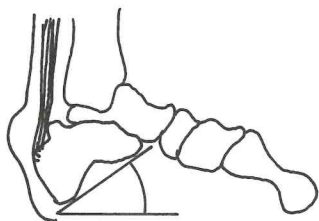
NORMAL ARCH. Heel bone at proper angle (note small tip on top of that bone, in front of achilles tendon; this is normal).



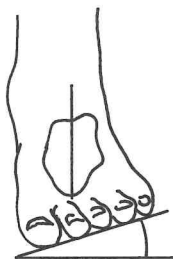
NORMAL FOOT PLANT. (left foot). Line drawn through heel bone is perpendicular to ground (note that all heels are higher on the upper, outer edge).



SUBTALAR VARUS (right foot). Heel bone is out of alignment with the rest of the lower leg, resulting in improper foot plant and a compensating roll.



"CAVUS" (HIGH-ARCHED) FOOT. Greater than normal pitch of heel bone, causing tip to rub on tissue with irritation, inflammation and formation of bump.



FOREFOOT VALGUS (left foot). Heel bone is normal, but the forefoot has a pronounced inward tilt, resulting in an irritating roll of the foot as it compensates.



TIBIAL VARUM (right foot). Entire lower leg is out of line. Landing is on the outside of the foot, with a twisting motion needed to meet the ground.

He fashioned felt supports for my shoes, to hold me until the special plastic ones arrived. The felt ones lifted the insides of my heels, as the plastic ones would, to compensate for the faulty foot plant.

Improvement was immediate. Swelling and pain went down the first day, and mileage went up. Then the plastic supports came. They were discouraging at first. They felt funny. They were hard and cold, and they rubbed blisters on my arches. And none of my shoes fit any more.

It took the better part of a month to adapt. Except for the breaking-in process, though, healing progress was steady. So why not try racing? I did, ignoring the advice Jock Semple—a physiotherapist and key man in the Boston marathon organization—gave when we were in Munich together last summer.

Jock said, "Don't pull up your carrots to see if they're growing. Once you pull them up, you can't put them back in the ground."

He explained, "It's no wonder runners are hurt all the time. They won't let themselves heal. As soon as they can

get back on their feet, they're trying to run hard again—to see if they're okay."

I wasn't, and the next day the pain was back, almost as bad as ever. It still hasn't gone away, a month or so later, and Dr. Subotnick has mentioned "operation."

He didn't fail. There is nothing wrong with his supports. He just got a patient who was pretty far gone already, and who won't use good sense. Without sensible preventive measures, the hurting will go on—no matter how good the doctor and his methods.

WHY BUMPS GROW

by Dr. Steven Subotnick

Heel bumps—an increasingly common problem among runners—are also called "pump bumps," Haglund's disease, or retrocalcaneal exostosis. They appear on the upper outer rim of the heels in

ABOVE: These are the four major foot-leg problems that lead to "bumps." Most cases can be kept under control with molded shoe inserts—if detected early. Podiatrists such as Dr. Subotnick can make the necessary diagnosis of trouble spots.

athletes with one of four different structural variations from the norm in the lower legs and feet (see diagrams above).

The cause of heel bumps is pressure and friction over the top of the heel bone—the calcaneus. This can occur as the heel rolls within the shoe to compensate for various leg-foot deformities. It can also result from a high-arched foot which pitches the upper part of the calcaneus backward and predisposes it to increased pressure from shoes.

The movement of the heel bone causes irritation of the tissue overlying the achilles tendon as it passes over the calcaneus. Initially, there is blistering of the skin. In time, a bump begins to

grow between the skin and the tendon or the tendon and the bone. This bump is partly an enlarged, inflamed bursa (fluid-filled protective sac) and partly a calcium deposit. Until the basic structural irregularity is corrected, irritation, pain and bony deposition continue.

Conservative treatment involves cutting out portions of the back of the shoe and replacing it with soft elastic. If an inflamed bursa is present, it can be injected with cortisone. This usually gives appreciated, but only temporary, relief.

Biomechanical treatment consists of adding custom-made inserts (orthotics) to shoes to correct faulty foot plant. Long distance runners appear to do well in rigid plastic orthotics. Sprinters and jumpers function best with a lighter, softer insert. For everyday use, however, a rigid device should be worn.

Surgical treatment is directed at removing the excessive bone and excising the bursa. Since conservative treatment usually will not reduce the bony growth, the rationale for surgery is sound.

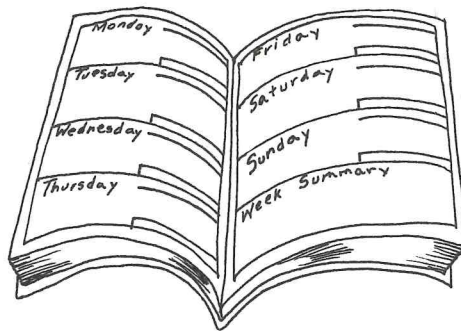
Surgery, however, should not be considered unless the runner is still plagued with symptoms after biomechanical control has been established.

If surgery appears advisable, the runner should do at least three weeks of muscle lengthening exercises prior to the operation (see "The Runner's Final Stretch," Jan. 73). These exercises will stretch the muscles in the backs of the legs which almost always are tight in runners—and in particular among runners with heel bumps.

The major complication in removing heel bumps is post-operative achilles tendinitis. This occurs because it is most often necessary for the foot surgeon to retract the achilles when removing the bony deposit. The movement of the tendon, along with the swelling which naturally occurs after surgical insult to the body, often causes inflammation of the tendon sheath space.

I have seen patients who are active and pain-free three weeks after this surgery, and other patients who complain of chronic tendinitis for as long as six months afterwards. However, those patients who were younger and had undergone yoga-type exercises prior to surgery fared better.

Bumps on the heels are just one sign of faulty foot mechanics. The signs of pain in the foot are protective. They signal the need for treatment. Ignoring these warnings, as is usually the case with those actively involved in running, only makes it more difficult to treat the end results of negligence.



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George Beinhorn photo

Gabe Mirkin is a medical doctor and long distance runner from the Washington, D.C. area. The case he describes here involves a man he treated himself.

Just as an automobile requires fuel from gasoline, every muscle requires energy-producing fuel from food. The main energy substance in a runner's muscles is glycogen, which is available most readily from carbohydrate-type foods. These include grain and sugar products.

Evidently, a limiting factor in endurance running is the amount of glycogen a muscle can bind to itself. Thus, the method that can bind the most glycogen to the muscle should promote the most endurance. Per-Olof Astrand, a noted Swedish physiologist, has found that by depleting leg muscles of glycogen and then eating a heavy carbohydrate diet, a runner can markedly increase his endurance.

The Astrand "carbohydrate-loading" method is widely practiced among long distance runners. It is basically this. Seven days before an important race, a runner depletes his glycogen reserves by taking a long run. He then avoids carbohydrates (spaghetti, bread, pastry, potato, etc.) for three days and eats mostly protein (meat, fish, fowl). Days four, three and two before the race

include the normal diet, with the addition of as much carbohydrate as the runner can stand. He eats a light meal the day of the race.

Although this method probably is beneficial in many cases, it can have dangerous side-effects. I recently treated a runner who tried the Astrand diet.

The 40-year-old had started running 10 years ago because of high cholesterol. He has run a sub-2:50 marathon and regularly trains 30-40 miles a week. He is 6'0" tall and weighs 150 pounds.

Seven, six and five days before a marathon, he followed a diet of cheese, meat and turkey. He ate several pounds of cheese in that period. On days four, three and two, he added large amounts of bread. At one sitting, he ate almost two loaves.

On day three, he felt a dull pain in his left chest. On day two, the pain became more severe and constant. A two-mile jog did not increase the pain, but there was an occasional knife-like feeling while he was running. He cancelled his plans to race the marathon.

I took an electrocardiogram which showed ischemic patterns, meaning there was a poor blood supply to his heart.

He immediately switched to one small meal a day and the pain disappeared in less than a week. Two weeks later, he ran 13 quarters in 95 seconds with a

A doctor's warning on possibly dangerous side-effects from prerace diet juggling.

by Gabe Mirkin, M.D.

TOO MANY CARBOHYDRATES?

10-second rest. This workout required little effort, and he had a normal electrocardiogram. I still advised the runner not to race for at least three months.

This case points out that in susceptible runners carbohydrate-loading can be a risky procedure. All excess calories can clog the arteries of the heart. This runner probably did not have a heart attack, but he did have angina—a partial obstruction of the blood vessels to the heart. If he had not enlarged the arteries to his heart with vigorous exercise, he probably would have had a heart attack. He might have died.

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A PLACE FOR US IN NEW YORK

by Jack Galub

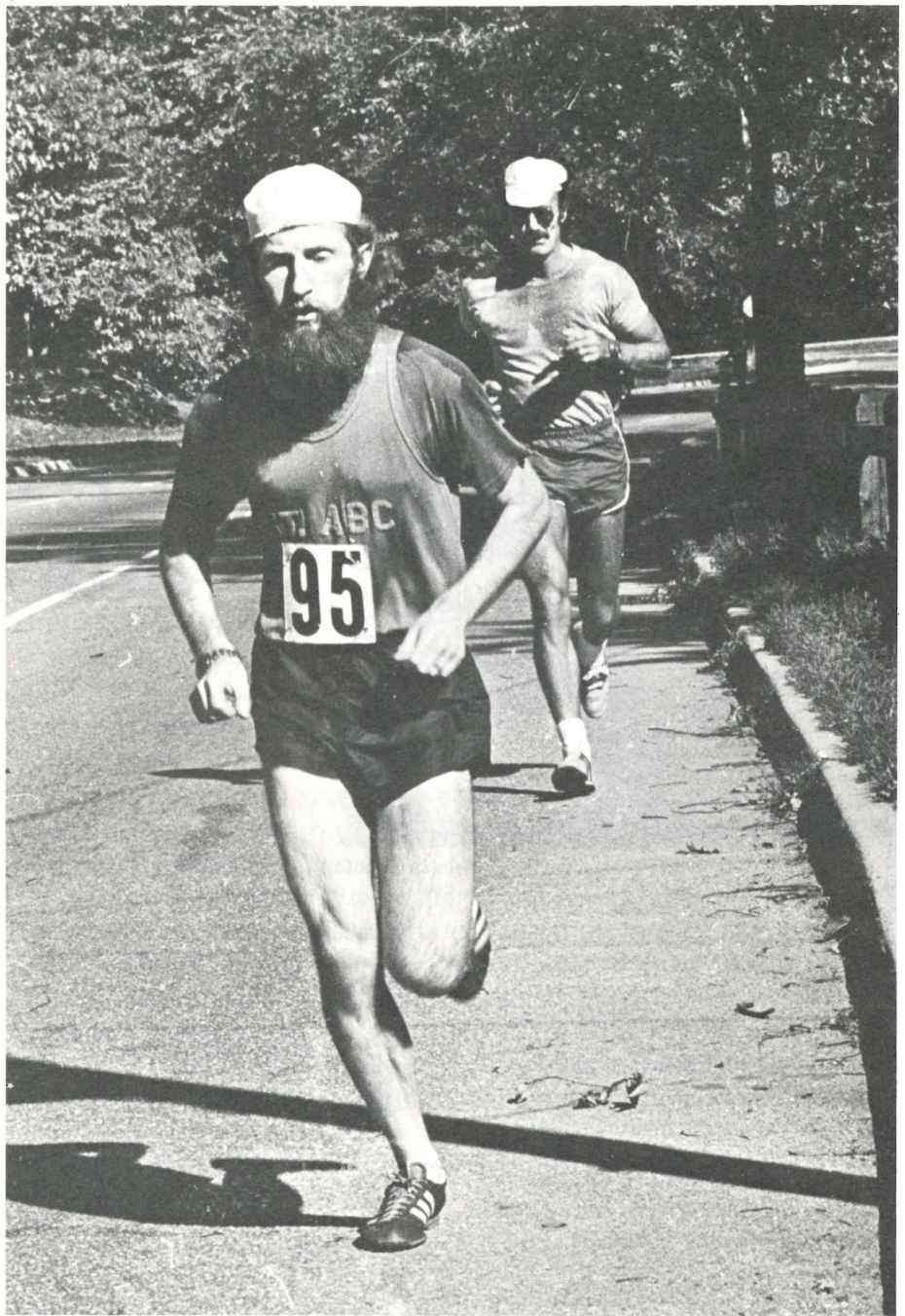
There are more places to practice running in New York City than the non-New Yorker might imagine. Jack Galub, a free-lance writer who works in the crowded city, has found most of them for himself. He offers this visitors' guide to running sites there.

At times the morning star is a torch in the skies... The moon's now walked-on full face is orange as it sinks out of sight... The run explodes through a low bank of clouds...

Would you believe not a pastoral scene, not a painted backdrop, but New York City? These are just a few of the vistas set overhead apparently solely for runners who have discovered that the city, and Central Park in particular, is a year-round refuge.

New York is a cold town, says tradition, but runners everywhere are a friendly lot. At the Central Park reservoir, you may find yourself striding and chatting with a surgeon on the staff of New York Hospital, the president of the US subsidiary of Japan's Yamaichi Securities Company, a sales promotion executive for Van Heusen, a fashion model, a school teacher.

On the bridle trail just below the reservoir, you can match strides with aspiring middleweights and heavyweights doing roadwork, as well as with other runners. And on weekends runners share the park's six-mile circular roadway with bicyclists and strollers.



Weekend racing in Central Park. Note that the road is free of auto traffic. (Steve Sutton photo)

Blessed be Mayor Lindsay, the runners' patron saint, who had the courage several years ago to ban vehicular traffic from the roadway during winter weekends and holidays plus two weekday evenings during the summer—despite the whimpers of the taxicab industry and the AAA. It is along this road that the better conditioned runners work out and marathons are held. Four laps plus an extra leg total a very official 26 miles 385 yards.

The trees, hills, paths and lakes of Central Park are the safety valve which keeps many New Yorkers from running amok. The park covers about 800 acres as it stretches from 59th Street north to

110th Street and from Fifth Avenue across to Eighth Avenue.

When the city got around to buying the site for what is now a picayune \$7500 an acre—but probably much too high for 1856—the area was occupied by shanties, piggeries and swamps nestled among rock outcroppings. Today, its 2½-mile long and half-mile wide rolling terrain includes 147 acres of reservoir and lakes, 35 miles of walks, 10¼ miles of road and 5½ miles of riding paths.

Its attractiveness makes it vulnerable, not only to an overabundance of dogs but to city departments, the Metropolitan Museum of Art, foundations and donors of monuments, clocks and other clutter. So runners and other friends of the park often find themselves fighting rear guard actions against encroachment. Fortunately, often the battles are successful.

Although exponents of fartlek probably do not have Central Park in mind, the park is perfect for that stamina building discipline. There are many areas which lend themselves to speed and over-country running, and there always seems to be another unvisited turn or cranny to conquer.

About the only two flat running areas are the 1 5/8-mile dirt track bordering the reservoir and the half-mile paved path running in an almost perfect circle around The Great Lawn, just south of the reservoir. The Great Lawn becomes the area of choice when portions of the reservoir track and the bridge trail are bogged in mud after heavy rains. Other paths and trails are made up of rises and hills, the steepest of which is the heartbreaking almost vertical ascent at the northern end of the park. Only the best do that hill without slowing to a walk.

As varied as the terrain are the running styles and dress seen in the park. Although there is a sprinkling of college track and warmup suits in evidence, most runners dress to meet local weather and their own idiosyncrasies. One always works out in a British jumpsuit and a pair of work boots. Another wears a bedraggled pair of drip-dry slacks topped by a washed-out sweat shirt. And on the coldest of days another runs bare-chested.

Although Central Park is the running center, Manhattan has several lesser areas. There is a half-mile long road along the East River, a three-fourths-mile track around the football field at Inwood Hill Park and a mile path in Riverside Park near the Hudson River.

The city's other four boroughs—Brooklyn, Queens, Bronx and Staten Island—also have marked paths. The longest is the six miles along Ocean Parkway in Brooklyn.

The best of the several cross-country courses is the five-mile Van Cortlandt Park route in the Bronx which is used for high school and college meets. Although the other boroughs have running areas that can be used for cross-country practice, none is close to the standard of Van Cortlandt Park's. The longest is Staten Island's three-mile

Clove Lakes Park course.

Randall's Island's quarter-mile track meets meet specifications. But it is a hassle to get to without a car and it is moot whether the effort is worthwhile. There are a number of city and school playgrounds scattered throughout the city with measured tracks. Two of the best are in the Bronx, at Van Cortlandt Park Stadium and Macomb's Dam Park, close to Yankee Stadium.

Tips for the out-of-New York visitor:

- Do bring your running shoes if you are going to stay close to any of the major parks. You'll find trails and paths to work out on. In general, expect to run on cement.
- Do not expect to find adequate locker and shower facilities. Plan on

running back to your hotel or home as part of your workout.

- Do not let rain or snow stop you, especially if you are close to Central Park. You'll find other runners out despite the weather.

- Do not work out if the air quality is bad. It has improved greatly, but there still are bad days.

- Before visiting the city write to the PRCA (Administration of Parks, Recreation and Cultural Affairs) for a copy of the Central Park map and the PRCA *Where Book*, an invaluable 68-page listing of all New York City facilities, addresses, travel information, etc. (PRCA's address is 850 Fifth Avenue, New York City 10021. Enclose a stamped, self-addressed envelope for the map. The *Where Book* is a self-mailer, but costs 10 cents.)

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Steve Sutton photo

MANAGING A TEAM OF 260

Molloy High School has New York's biggest and perhaps best group of trackmen.

by Marc Bloom

It is by no accident that Archbishop Molloy High School in New York City's Queens borough has produced during the past 15 years an assortment of prominent track accomplishments that could rival, if not surpass, that of any other school in the country.

Since the school opened in 1957, Molloy teams in cross-country and track have won scores of prestigious titles, developed several individual champions and accounted for a number of national records. Its runners have achieved this success through a comprehensive program whose organization and efficiency would leave college staffs in awe.

Molloy certainly lends support to the theory of strength in numbers. There are 260 regular track team members, about one-sixth of the total student (male only) enrollment. None of those athletes are "hangers on." All attend practice every day and compete regularly in meets. All have the necessary uniforms and equipment. All get sufficient coaching and utilize available facilities.

How do they do it?

The "they" is a full-time five-man coaching staff led by head coach Tony Perrone, who concentrates on runners from the 440 and up. The only other lay instructor is DeWitt Thompson, a 2:34 marathoner who is the physical education chairman. The three other coaches are part of the religious order of the Marist Brothers. They are Patrick Lolly, Patrick Hogan and Aquinas Richard.

The functions of each assistant coach are quite specific and specialized. Richard handles all of the freshmen (as he has since the school opened). The others coach the varsity athletes. Lolly works with the sprinters. Hogan coaches the hurdlers, high jumpers, discus and

javelin throwers. Thompson supervises the shot, vault and horizontal jumps. Many coaches might frown upon this type of diversified setup, with its seemingly inherent problems of overlapping responsibilities, personality conflicts and power struggles.

Each coach—with his athletes—functions as an autonomous unit. He designs the workouts and manages entries and clerical matters without having to obtain Perrone's approval. The well-oiled Molloy machine could not survive without mutual respect among the coaches.

When decisions are made, "there are no questions asked," says Hogan, who is also the team moderator and biology department chairman. Perrone, in his fourth year at Molloy, oversees the entire operation and, of course, determines general team policy.

A Molloy practice session is like a

Marc Bloom regularly covers high school track in the New York City area. He writes and edits the publication New York State Scholastic Track.

three-ring circus. Simultaneously during the winter indoor season, hurdlers and fieldmen work out in the school cellar, sprinters on the 11-lap-per-mile outdoor wooden track and distance runners on the streets.

Often teams draw large turnouts to September meetings, only to have the number evaporate as the season progresses. But Molloy seems to have repelled the contagion of urban woes that have thinned other squads.

"We get good, bright kids who are willing to work," says Perrone, who estimates that 75% of the freshmen remain on the team for four full years.

Molloy conducts only two other varsity sports—baseball and basketball, which do not get the attention that track receives although they are consistently successful.

Students attending Molloy pay an annual tuition of \$700. Most live in Queens or in suburban Nassau County on Long Island. Many come from financially-secure families. Therefore, few hold part-time jobs, unlike thousands of less fortunate New York City athletes.

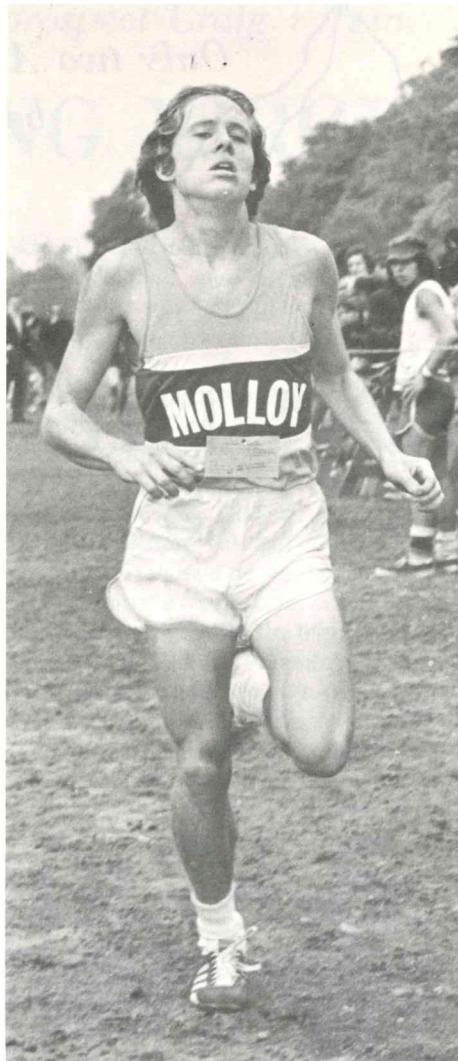
Every fall, when classes begin, the Molloy public relations campaign swings into action. Slides and photos showing colorful accomplishments are prominently displayed. Trophies and awards are conspicuous. The team captains visit classes to offer their encouragement. Then, just one announcement is needed, and the first meeting is a packed house.

The fruits of the Molloy effort read like a statistician's dream. Since Molloy opened in '57, its athletes have won precisely 19,898 medals, and the team has taken 672 trophies while capturing 164 of the 261 league championships (on all levels) in which it has competed. So states Molloy's 1972 track annual, a 50-page summary of everything of note Molloy trackmen have ever done, prepared by and for the team.

Among the individual stars were Tommy Farrell, a 1:54.3 half-miler in 1961 who became a 1968 Olympic bronze medalist...James McDermott, whose 9:23.5 set a national indoor two-mile record in the pre-Lindgren era of 1963... national two-mile relay records of 7:34.8 (outdoors) and 7:49.2 (indoors) led by Bob Zieminski and Peter Farrell, Tom's brother.

Molloy, which prides itself on a balanced unit of capable sprinters and fieldmen in addition to its heralded distance corps, is as strong as ever this year. The team captured five varsity cross-country titles (and bushels of frosh honors) last fall.

Only a cooperative school admin-



Tom Hummel, latest in the long string of top Molloy cross-country runners. Tom led the team last fall. (Manning Solon photo)

istration could enable Molloy to conduct such a program. "We really don't have a regular budget," says Perrone. "We just get what we need. The school sees the value in track."

What the team usually needs to operate is about \$5000 a year, according to Perrone. While the figure seems high, it is actually less money per man than many other teams in the league that may have a budget of \$2500 for, perhaps, 70 athletes. (Those figures exclude coaches' salaries.)

Sometimes funds are tight. Last year Perrone needed 75 new uniforms at

a cost of \$1500. So the team conducted a "cushion sale"—pillows embroidered with "Molloy." They sold 4000 pillows. Result: new uniforms.

Underlying the Molloy success (has) been the sophisticated attitudes of the past and present head coaches: Frank Rienzo, now at Georgetown, and Perrone.

"I would hope that a high school athlete would acquire an interest in track as a sport and as a conditioner, a lifetime interest," says Perrone. "This interest can only be instilled in an athlete by permitting him to develop at his own rate.

"There are no secret formulas, just common sense in trying to give each athlete the amount of work which would enable him to achieve his goal for that meet, that season, that year or eventually in his career."

At meets, the subdued demeanor of Rienzo or Perrone is hardly noticed amid the cries of bellowing coaches. Brother Hogan, who has worked with both men, says "Both have the same objectives: (they do) what's best for the kids. They sacrifice for the kids."

Their training philosophies are similar, except that Rienzo stressed intervals with reliance on the watch, while Perrone has the athletes doing frequent road work.

"We're not as strict now as we had once been," says Hogan without a trace of regret. "There was once a time when a kid could not be excused from practice. We're flexible now, and the kids appreciate the responsibility."

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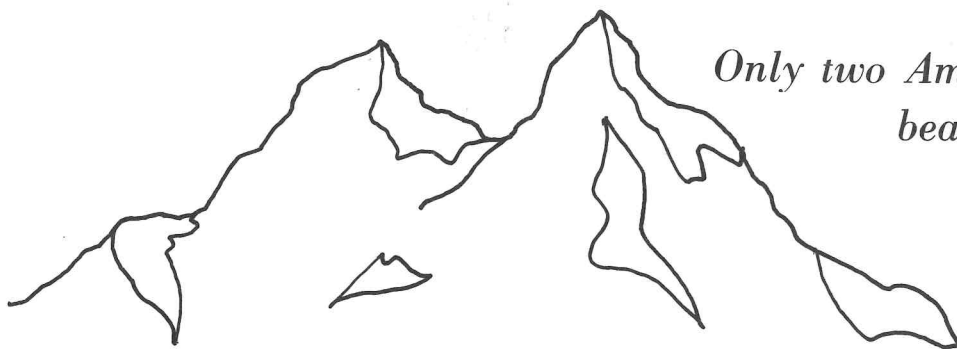
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*Only two Americans—both Olympians—
beat John Lunn in the AAU
cross-country.*

DOWN FROM THE MOUNTAINS

by Dennis Kavanaugh

Because of his startling performance in the AAU cross-country in November, John Lunn rates a special expanded profile, outside the normal profile section. Dennis Kavanaugh of Denver interviewed fellow Coloradan Lunn.

Who is John Lunn? That question can be answered simply by referring to the results of the recent National AAU cross-country championships. John finished fifth, and was the third American home—behind Olympians Frank Shorter and Jack Bachelier.

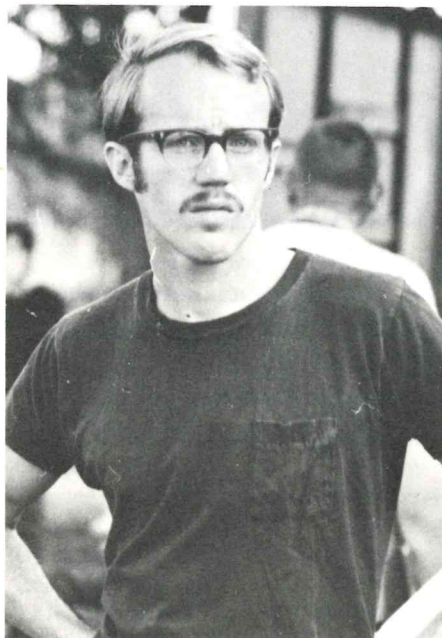
Looking back several years, Lunn can be seen as one who performed consistently in the National Collegiate cross-country championships. Competing for the University of Colorado, he was able to compile an impressive record: 52nd as a sophomore, 22nd as a junior and 21st as a senior. But nothing he had done remotely compared with his AAU race.

Two weeks before that one, John finished only third in the Rocky Mountain cross-country championship. However, his ulcer flared up there and he didn't consider this to be a good indication of things to come. He has always felt he is better than his times indicate.

After the AAU, Lunn said, "For the first time in my life I have been able to do double workouts for longer than eight weeks without getting sick or hurt. My senior year (in college) I ran the same time as Frank Shorter in the NCAA cross-country on eight weeks of double workouts—my previous record. This year I changed my training and went 14 weeks, and ended up getting hurt at the AAU race!"

He says he thought he could be

in the top 10 at Chicago, "but looking back over the race I think I could have run better. I let up mentally a couple of times because I was so pleased at how well I was doing. I have a hard time thinking of myself in the same class as these Olympic runners."



JOHN LUNN: "If altitude is an advantage, the location of the altitude is a disadvantage. From Boulder, you have to go 600-1000 miles to get into a top meet."

One of John's big gripes concerns running at altitude. It has been shown (a la Shorter, Bachelier and Jeff Galloway training at Vail, Colo., and other high locations) that altitude benefits runners when they go down to sea level.

But the paradox exists in John's

mind that the altitude does not get him or other high-altitude runners the quality times they want, and that their altitude times indicate they should. He contends that the Colorado distance runners are quite talented but never get adequate opportunity to prove it.

"I really don't know for sure whether or not altitude is an advantage," John says. "I have lived here all my life and know nothing else. I have a feeling that it probably helps. It seems that the mileage is not as big a factor at this altitude and that 80 miles here is at least equal to 100-110 miles a week at sea level.

"But if the altitude is an advantage, the location of the altitude is a disadvantage. From Boulder, you have to go 600-1000 miles to get into a top meet. Many of these meets have qualifying times which are extremely difficult to get at high altitude."

A good example is the situation surrounding John's personal record at his favorite distance, the mile. All indoor and outdoor track season last year, he wrote to meet promoters and never got so much as a "Dear John" in return. He and his father had to drive from Boulder to Wichita for the USTFF meet.

In order to compete there, since he had not met the 4:08 qualifying standard, John had to sneak into the race. After colliding with another runner toward the end, and stopping to give assistance, he still ran 4:08.4. He thinks the collision cost him at least four seconds.

John Joseph Lunn: Boulder, Colo. (Colorado Track Club). 25 years old (born Oct. 14, 1947, at Denver). 6'1", 155 pounds. Married. Occupation: history teacher. Self-coached; advised by Jerry Quiller. Began racing in 1965 at age 17.

Racing: 880—1:52.2 (1969); 1320—2:58.4 (69); mile—4:08.4 (72); 6 miles—30:07 (69). ("I don't really run enough low-altitude races to get good times.")

Training: twice a day, 5 days a week, "as long as my body can stay together;" 80-90 miles a week. "I love hard intervals but had to change from

EXPLORING VIRGIN GROUND

by John Moody

John Moody is a 15-year-old high school runner from Park Ridge, Ill.

Craig Virgin, a 17-year-old high school senior from Lebanon, Ill., is the country's brightest young distance running prospect since Steve Prefontaine.

Craig's performances have been spectacular for his age: 9:32 freshman two-mile; 8:57.4 as a sophomore; 4:09.2 mile, 8:52 two-mile, 13:45 three-mile and 14:14.6 for 5000 meters as a 16-year-old junior, and 13th in last fall's AAU cross-country meet as a senior.

These performances speak for themselves and need no qualifying remarks. But it should be noted that Virgin began his running career with a discouraging medical history to overcome.

In early childhood, Craig had a kidney infection caused by a defective bladder. At one time he had only partial use of one kidney, and had an operation in kindergarten that wasn't very successful. Antibiotic therapy followed for eight more years, with many painful checkups. Finally, the situation worsened in eighth grade, and Craig had another operation. This surgery corrected the problem, finally giving him full use of both kidneys.

Craig began running in junior high as a basketball player when the coach sometimes made the team run intervals on a huge, grassy field in back of school. Craig was never beaten in these, and his times were comparable to those of high

school cross-country runners who also ran on the field. But Virgin's real love at this time was baseball, which he played since he was quite young.

At the start of his freshman year, baseball and cross-country practice occurred simultaneously. Craig was persuaded to try cross-country. In his first practice, he lapped the entire varsity in a five-mile run. The next day he made his final decision—baseball or cross-country? Craig said he would give cross-country a trial season, and now says, "It was probably the best decision I'll ever make."

Craig first raised a few eyebrows as a freshman when he did a 9:45 two-mile to qualify for the state track meet. Before the state finals, he increased the quality of his workouts. In that meet, Craig ran 9:32 for seventh place and set his first world age-group record.

As a 15-year-old sophomore, he raced nationally-known David Merrick in the state two-mile. Merrick had not intended to go all-out in the two mile and save himself for the mile, but Craig pushed him through a 4:24 first mile. Merrick began to pull away after that, but Craig's 8:57.4 was as big a story as Merrick's victory.

As a junior, Craig took the state cross-country title with 13:59 for the three-mile course. Later, in the state track meet, he really showed his superiority. First, he did an 8:52 two-mile (winning by 17 seconds). The next day he won the mile in 4:09.2. Craig was pushed in that one, but won with a 58.2 last lap.

Last summer, Craig qualified in

the 5000 for the first US-USSR junior (under-20) meet. He describes his race at Sacramento:

"I was confident I was capable of beating the Russians. I go into every race confident that I am capable of beating my opposition. It was a hard clay track and very hot—108 degrees. I took the lead from the start and led the whole race except the last 120 yards. At that point, the two Russians passed me and boxed me in. I didn't know the box was happening and didn't know how to handle it once I was in. I almost broke through on the inside. There was physical contact. I stepped on the curb, broke stride and the race was over. Even though my stride was broken, I did a 59.3 last lap, my second fastest. I will expect a rougher race next time. All in all, I learned a lot in my first international race."

No one came within 30 seconds of Craig the entire cross-country season, and he finished the season with a 13:50 three-mile win at the state meet. Then came the AAU and his 13th place final. He says of it, "I was really happy. I proved to myself that I'm going to be giving some runners some tough competition. Not knowing the course at all and not seeing the finish line until 150 yards out, I caught three guys in that distance, thus proving I have a good kick. I really finished 12th, having beaten a Bowling Green runner (Tracy Elliott) at the chute, but my card was lost in inefficient organization and I ended up with 13."

Lebanon (population 4000) doesn't offer Virgin the best training facilities. "I do speedwork on a field behind my high school," he says. "My overdistance work is done on roads in surrounding farm country. We have no track."

Craig believes in quality over quantity in his training. "I usually do 8-11 miles over distance work at 6-6:30 per mile, sometimes faster. I don't do excessive speed work or distance work. My longest non-stop run is a 13-miler; most in one week is about 85 miles. My coach, Hank Feldt, and I get together on workouts. Hank is not a strict disciplinarian, and we get along fine. Every year my training increases in distance and speed."

DOWN FROM THE MOUNTAINS — continued

this type of training because of too many injuries. Now I'm not working as hard at running, but I am more consistent with double workouts and I get more out of training.

"Every morning, Monday through Friday, I run six miles as hard as I can. The time varies between 32:30 and 34:00.

"In the afternoon, I alternate interval days with over-distance days. Intervals include: 6 x 880 at 2:10 (880 jog); 16 x 330 (110 jog); 6 x mile at 4:32 (four-minute rest); two sets of

10 x 220 at 29 (30-second jog); or my hardest workout of 10 x 220 at 29 (30-second jog), followed by six miles in 33:30, followed another set of 10 x 220 at 29.

"On overdistance days, I'll run 6-8 miles at six-minute pace. After my hardest workout, I need to take two days of distance before I can get a quality interval workout again.

"I train this way because it is as hard as I can run without running myself into the ground."

THE POLITICS OF FITNESS

Goodloe Byron's opponent in the congressional election last fall attacked him for missing some votes in Congress while absent in order to compete in the Boston marathon. On the day in question, the Maryland congressman missed two roll-call votes—the only ones he missed all that session.

Obviously the voters of his district feel he is minding their business properly and is entitled to a day off once a year to run at Boston. They returned him to Washington with a substantial plurality.

Byron makes it clear that two of the great moments in his life every year are the Boston marathon and the JFK 50-mile hike-run in his home state.

Byron credits John F. Kennedy with getting him interested in running and physical fitness as a whole. Although ideologically the congressman and President Kennedy were on different wavelengths (Byron is a conservative Democrat), he praises Kennedy's attitudes and stress on fitness.

Byron began jogging in the early '60s with the sole goal of keeping fit. He had participated in athletics in high school and college but not as a runner. At first he just worked out three times a week while serving in the Maryland State Legislature in Annapolis. But soon his personal interest in fitness grew along with his workouts.

The 43-year-old congressman's current training is quite moderate during most of the year, devoted to keeping him in good physical shape and to keeping his weight at a good running level. But every January he begins increasing the volume in order to be ready for the JFK run in March and the Boston marathon in April. During his peak training period he runs every morning before driving the 50 or so miles to Washington from his rural Frederick, Md. home. He logs about 35 miles a week over hilly terrain during this time.

The recent re-election campaign limited Byron's workouts because of the 18-hour-a-day political schedule—but he still managed 12-15 miles a week.

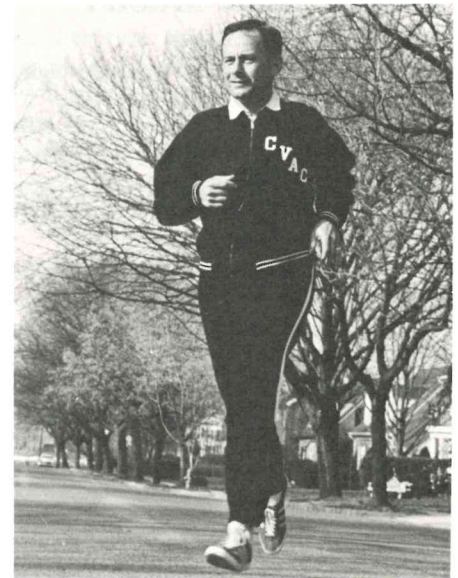
Congressman Byron's interest in fitness is political as well as personal. He finds it a sad state of affairs that this country spends billions of dollars for health delivery services and spends only

a pittance on preventive health programs. He feels the government should be doing more to encourage people to stay in good health. A National Department of Physical Fitness and Athletics is not out of the question, as far as he is concerned. Byron is critical of the small efforts made thus far in this line and feels that a small office in the White House devoted to fitness is not the answer for a problem this large.

Back in 1967 as a state legislator, Byron himself championed the cause of more funds for Marylanders in the fitness area. He requested from then governor of Maryland Spiro Agnew that the state's physical fitness commission, which was in danger of having its budget slashed, be left untouched. Congressman Byron was victorious.

As strongly as Byron feels about the need for a more adequate plan for physical fitness in the United States, he says, "I hate to think that it has to be a subject for legislation."

Byron's penchant for fitness is not limited to runners. He co-sponsored a bill allowing states and communities to use federal money for development of bike lanes and paths. This legislation would also provide for construction of bike shelters, parking facilities and traffic control devices. In his statement supporting this legislation, Byron said,



"Hopefully the bill would encourage use of this unique vehicle that emits no pollution, makes no noise, takes up little room and acts as a body conditioner for its rider."

Byron is planning to walk his district—which measures about 300 miles—sometime next summer. This will let him meet many of his constituents face to face—and hopefully plug fitness a bit, too. His fitness is a definite political asset.

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HONOLULU'S DYNAMIC DUO

60-year-old record holders *Bud Deacon
and Stan Thompson*

by *M. E. Tymn*

You approach them from the other side of the track as they limber up for the long jump and you assume they are a couple of campus athletes. You watch them as they sprint down the runway getting their steps and there is nothing in their form to give them away.

It's not until you get within shot-put range that you realize they are not members of the University of Hawaii track team. You figure at first that they must be in their mid-40s. It comes as something of a shock to learn they are both past 60.

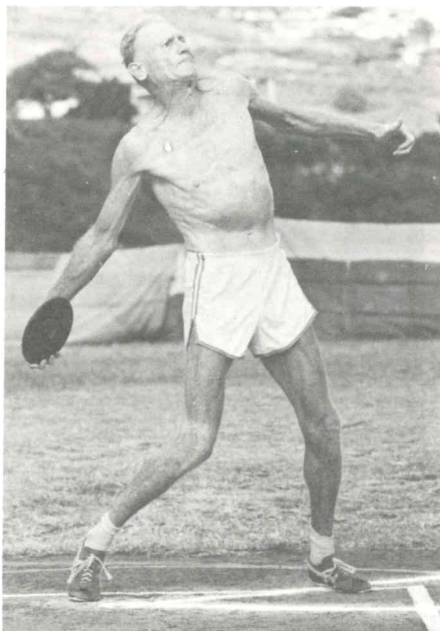
They are Stan Thompson, 62, and Bernard "Bud" Deacon, 61. By the time this article is in print, they will probably have added a half-dozen or so world age-group records to the approximately two score they have already set.

The two are in some ways opposite. Deacon was a college star. Thompson took up the sport for the first time less than two years ago. Deacon works out with the dedication of a four-minute miler, putting in as much as two hours a day, six days a week. Thompson seems more intent upon just keeping fit and having fun. Deacon is taller and more fluid. Thompson appears younger and is more stout.

Deacon is a retired Navy commander whose last tour of duty brought him to Hawaii 12 years ago. When he is not working out, he keeps busy managing his hotel, apartment houses and other property.

Born in San Diego on April 28, 1911 he graduated from Stanford University in 1934. While there he set a world record in the pole vault of 14'2¾" and won two NCAA pole vault championships (eight years later he vaulted 14'6"). Remember, this was the era of bamboo pole. Among his other achievements were a 6'2" high jump, a 22'10" broad jump, and a 201-foot javelin throw.

Thompson moved to Honolulu in 1966 after spending 11 years in the US Foreign Service. A consulting engineer, he served on projects in such places as Pakistan, Egypt and Cambodia. He supervised the construction of a railroad in Africa, the only one to be built anywhere in the world in the last 50 years.



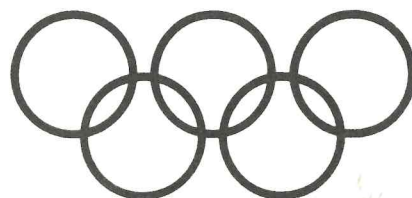
"Bud" Deacon

Unlike Deacon, Thompson did not put on a pair of track shoes until 1971, although he did win letters in wrestling and ice hockey at the University of Illinois. He credits hard work and volleyball with having kept him in shape over the years and making the transition to track a fairly easy one.

Thompson is the first to admit that Deacon is the "king" of the over-60 division, but being a year older Stan is able to get first crack at breaking or establishing single-year age records. Their best performances since reaching age 60 are listed below:

Event	Deacon	Thompson
100y	12.9	12.6
220y	28.4	28.9
440y	62.5	67.2
880y	2:23.8	2:38.8
Mile	5:24.3	6:12.1
2 miles	12:48.2	13:20.0
Steeple	none	16:10.0
Hour	8m 110y	7m 24y
High jump	4'8"	4'9½"
Pole vault	10'2"	9'4"
Long jump	15'5¾"	15'4"
Triple jump	31'4½"	32'11"
Shot (8 lb.)	37'6"	27'10"
Discus (1 kg.)	105'5"	91'2"
Javelin	104'6"	69'2"
Decathlon	3835	2419

Hawaii's year-round warm climate combines with an active masters program to give these two plenty of opportunity to develop. A couple of immediate goals: a sub-60-second quarter for Deacon and a five-foot high jump for Thompson. And neither plans to "peak" for another two or three years.



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MARATHONING IN MEXICO

Catherine Smith lives in Reno, Nev., and is the wife of Ross Smith, last year's AAU 50-mile champion at the age of 44.

"Donde esta el maraton?" (Where is the marathon?)

"Pa' donde me voy?" (Which way do I go?)

"Derecho!" (Straight ahead!)

"Derecha!" (To the right!)

"Izquierda!" (To the left!)

These are the Spanish phrases I learned in the hour before starting the Governor's marathon on New Year's Day in Mexicali, Mexico. If I missed the course, which winds most of its way through the crowded and often unmarked streets of the city, I could ask directions. But could I understand the answers? I hoped to find another four-hour wonder among the rather small field gathered at the imposing Casa de la Juventud for the start.

The kids who accompanied me for the first hour didn't tell me, or at least I didn't understand from our sign language conversation, that they didn't plan to go more than 10 miles. But even so, I needn't have worried about getting lost. Never has the marathon plodder been more assiduously pampered. In fact, it was a very well managed race.

It wasn't simply the brass band that saw us off. Every corner was manned by a guide holding a large flag with the red and white insignia of the Mexican National Institute of Youth, and the guides were still there when I appeared.

There were other helps, too. Surely the motorcycle *policia*, who putted patiently along beside me for the last 18 miles, knew where to go. He zoomed ahead at every intersection to stop traffic, so I might sprint across unhindered. After awhile he was joined by a large white ambulance marked "Cruz Roja Mex." Having picked up all the drop-outs and sped them back to the finish, its driver followed behind me, charging an occasional dog (fine idea) and revving up his siren at a corner now and then to help manage the traffic. Almost five miles of going straight into the heavy Santa Ana headwind (30-50 mph) slowed and tired me more than I expected. If I had been alone, I probably would have walked. But I was the only



Catherine Smith's personal escort paces her alongside the US-Mexican border in the Governor's marathon. Mrs. Smith, of Reno, was the first (and only) woman finisher.

female entrant and I just didn't want to be hauled back ignominiously by the Red Cross, so I kept going. Every now and then a cup of water or an orange section appeared; once a half a lime (tasty); even a trainer to massage my legs (good).

After 20 miles or so, the route turns onto the Boulevard Lopez Mateos, the main commercial avenue of Mexicali. Here I picked up my own personal cheering section, a pickup truck with about 30 girls crowded into the back. They stayed with me to the end, hollering up a storm all the time. Numerous bystanders picked up the message and cheered, too. The girls had one yell which ended "La gringa! La gringa! Rah, rah, rah!" How could I walk with an enthusiastic audience like that? I even picked up the pace a trifle.

As I finished, I was asked to postpone my shower so that the awards ceremony might proceed. I found an audi-

torium overflowing with 300-400 people, plus the brass band. On the platform were various dignitaries and a table laden with the most imposing array of trophies yet seen by me. The winner, Nabor Gomez, staggered off under a trophy at least four feet tall. My husband Ross was third in 2:35, the first *norteamericano*. He got a somewhat lesser monument (still enormous). There was even a trophy for the first (and in this case, only) woman finisher, 4:16 and all.

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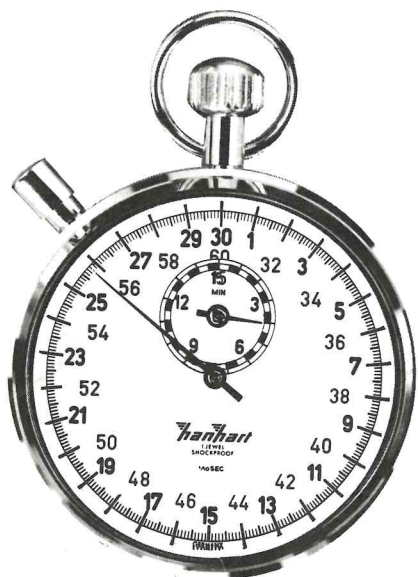
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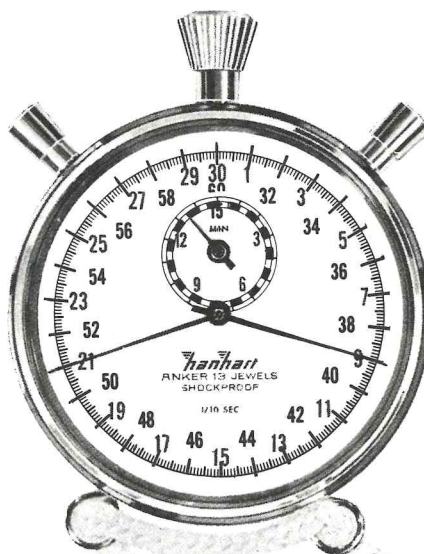
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by George Sheehan M.D.

MEDICAL ADVICE

HEADACHES

Q: *My vascular headaches disappeared when I started marathon training one year ago. Recently, after my best marathon, I had a severe three-day headache. Can I expect more? What can I do to prevent them? (T.B., Palos Verdes, Calif.)*

A: People with vascular headaches inherit a lifelong tendency to this disorder. They can recur after months or years of freedom from symptoms. Some experts have suggested that allergic foods can pull the trigger leading to an attack. Chocolate is frequently cited as a causative agent. Recent research has focused on several types of foods known to precipitate attacks and has given rise to the following dietary suggestions:

1. Avoid alcohol, particularly red wines and champagne.
2. Avoid aged or strong cheese, particularly cheddar cheese.
3. Avoid chicken livers, pickled herring, canned figs, pods of broad beans.
4. Use monosodium glutamate sparingly.
5. Avoid cured meats, such as hot dogs, bacon, ham, salami, if these can be demonstrated to evoke vascular headache.

6. Eat three well-balanced meals a day. Avoid skipping meals, prolonged fasting or eating excessive amounts of carbohydrates at any single meal.

You will have to keep a food diary and write down all food eaten for 36 hours prior to the headache. After two or three headaches, the recurrence of some specific food item may incriminate it as the causative agent.

Vascular headache can also occur from carbon monoxide exposure. The possibility of excessive carbon monoxide exposure should also be considered, especially if your marathon was through areas of heavy traffic.

STITCH

Q: *For over a year, I've been bothered by pains in my right side whenever I run. I have tried everything—running it off, laying off of running, etc. But whenever I go back to a certain distance and pace, the problem returns. What is*

it and what can be done? (R.S., Cotati, Calif.)

A: Although you do not give the exact location of your pain, I assume that the discomfort is in the upper abdomen or lower chest, an area which usually is the site of the runner's "stitch." This may result from specific muscle weaknesses. I have been struck by the frequency of such weaknesses in runners' abdominal muscles.

Try this yourself. Lie on your back, hands clapped behind your neck, knees bent and your feet on the floor. Then try to sit up. If you have difficulty, you have a weakness that needs correcting.

In addition to muscle exercises, I suggest that you work on abdominal breathing with stretching of your belly muscles. Belly breathing, as opera singers have shown, is the most efficient way to breathe. The first exercise for this is to lie on your back on the floor. Then place your hand on your stomach. It should rise as you breathe in, descend as you exhale.

One other tip that may help is to raise your arms up and out as you inhale while running and then drop them as you exhale. This is recommended by Percy Cerutti, who says that moving elbows forward and backward restricts the air intake to the lungs.

COUGH

Q: *I'm 43 and have been running LSD for about five years with mediocre results in competition. Last summer, in an effort to improve my mile time, I started running intervals of 440 in 72 seconds. I immediately developed a*

severe cough which persisted all summer as I continued the intervals. I stopped them in the fall and my cough went away. My question is, if I go back to intervals will my respiratory system adapt, or am I asking for permanent trouble? (C.V., LaGrangeville, N.Y.)

A: Post-race cough is a fact of many runners' lives. I know that any all-out race, usually 880 or mile and especially indoors, will leave me coughing for a day or two. I suspect this is due to a drying, irritating effect on the larynx and bronchial tubes. Usually interval work done at race pace for much shorter intervals doesn't do this.

In your instance, it would seem that either the distance or speed, or both, is too much. I would cut down to 220s or 300s at the same or slower pace. In addition, I would adopt Italian physiologist Margaria's suggestion for speed work: interval 80-100 meters. Theoretically, these can be done indefinitely without building up lactic acid. I have done 20-25 at one session. This would give you speed and strength to add to your LSD endurance.

BLOOD DONATION

In answer to a number of questions about the effects of blood donation on running.

A: There is general agreement among physiologists that after blood loss there is a deterioration of physical performance. Bjorn Ekblom has charted the effect of taking 800cc. of blood from three volunteer runners. He found that physical performance capacity decreased by approximately 30% and maximal oxygen uptake decreased 13%. The major

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effects were felt the second day. After that, things began to improve. It took two weeks for the maximum oxygen capacity to return to normal. Heart rate and time for a maximal standard run took four weeks to come to pre-blood-letting standards. The effect of withdrawal of a pint (500cc.) would be less, but still significant.

Anecdotal evidence, mainly from Yale coach Bob Giegengack, also suggests that competitive runners should forego donating blood. The runner who gives blood runs as if he had mononucleosis, Giegengack told me. He looks okay until the last fourth of the race. When he reaches for his reserve, his acceleration, he finds there is nothing there. Less than maximal effort, however, can be handled without too much difficulty.

(Reference: "Response to Exercise after Blood Loss and Reinfusion," Bjorn Ekblom, *Journal of Applied Physiology*, August 1972.)

KNEE "FRACTURES"

Q: *After experiencing pain in my left knee while jogging, I went to my doctor. X-rays showed that I had fractured the patella. When I started jogging again after the cast was removed, I had pain in both knees. Several months later, an x-ray showed I had fractured my right knee. My doctor advised me to stop all athletic activity as a solution to my problem. (He is not a jogger and cannot understand how important this activity is to me.) I would appreciate any advice you can give. (H. G., St. James, N.Y.)*

A: I think you have been inadvertently treated for a benign, asymptomatic condition—a bipartite patella. This is a kneecap which never fused and therefore is mistakenly thought to be fractured. If so, the so-called fracture line will be vertical instead of horizontal (which represents a true fracture line).

This still leaves you with knee pain, undoubtedly the prevalent "runner's knee" which is known medically as chondromalacia. The treatment for this we now know must be directed to your feet. Mechanical defects in the structure of the feet cause a variety of abnormal foot movements after they strike the ground. Diagnosis and correction of foot weakness is necessary.

At times, simply a Dr. Scholl's longitudinal arch bought at the drug store will do the trick. However, you may well need expert help from a podiatrist clued in to runners' problems.

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PROFILES

M. Julius Baum



BRIAN ARMSTRONG

Running, at best, is a series of compromises that grow more critical with age and rising ambition: balancing running wishes with inflexible obligations; time one wants spend running with the time available to spend, and most of all the possibilities of success with the risk of breakdown.

Brian Armstrong thinks the reason he ran so well in 1972 was because he saw the need for compromises and made the necessary ones.

"My basic goal in training," says the Canadian marathoner, "is to minimize injuries so as to be able to train consistently and at least make it to the starting line of the races I want to run. Almost every year I have developed nagging and tenacious, although not awfully serious, injuries, and I feel that they have retarded my progress quite a bit. I feel that the basic problem has been trying to get too much mileage. And for me the breaking point has been rather low."

Armstrong, a 24-year-old from Toronto, hadn't run a marathon until a year and a half ago. He had wanted to run one before that, but couldn't. Injuries had stood in the way. Obviously, he brought them under control in 1972, because he ran a close second to Jerome Drayton in the Olympic Trial (neither of them got to go to the Games) and ran two 2:18s within six weeks later in the year. Brian won the Motor City race in Detroit (with 2:18:46) in Octo-

ber, and the Western Hemisphere in California (2:18:56) in December.

He did this on only about 75 miles a week. "I feel that it would be desirable to get more mileage," Brian says, "but from disappointing experiences during my running career I have concluded that the price is too high. Although I may try to increase my quantity when the spring comes, I will do so only very slowly and carefully."

Brian Joseph Armstrong: Toronto, Ontario, Canada (Toronto Olympic Club). 24 years old (born Sept. 9, 1948, at Toronto). 5'7", 125 pounds. Single. Law student. Coached by Paul Poce. Began racing in 1963 at age 14.

Racing: 3 miles—13:56.8 (1967). 10,000m—29:52 (71). Marathon—2:18:46 (72).

Training: usually twice a day, 7 days a week, 12 months a year; averaging 75 miles a week. "I seem to be bothered more (with injuries) by longer runs than by speedwork, so I try to do most of my hard running on the track. During the summer it is not unusual for me to do at least a little work on the track five or six days a week. During the winter, I try to train on the indoor track twice a week.

"I think the most valuable kind of track work for a marathon runner is probably repeat 880s, 1320s or miles, although I also run shorter repeats.

"Sometimes during the summer I take longer runs of 12-15 miles at a pace which is not fast, but I am wary of doing too much of this. More often, if I want to do about 15 miles, I'll split the load into two relatively even workouts. These are generally not very fast either.

"I also put about 4300 miles on my bicycle last year, which is more mileage than I got running. It is difficult to say what, if any, effect the cycling has had. I can say that I enjoy it per se. I presume that there are some cardiovascular benefits."

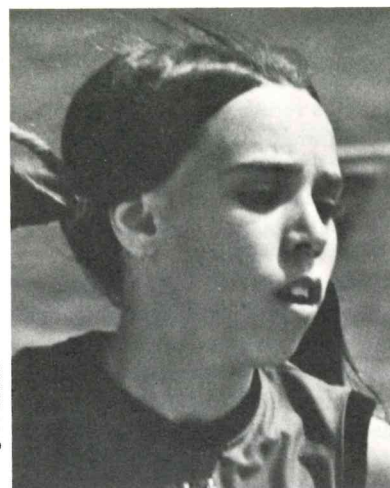
MARY DECKER

BY CALVIN BROWN

Mary Decker can run everything from short sprints to the marathon. And for one so young, she has accomplished a lot.

Early in 1972, a few people in southern California were optimistic enough to believe that Mary could make the Olympic team at 1500 meters. She would be turning 14—the minimum age for international competition—just before the Games.

Doug Schwab



She already owned an age-12 record in the mile (5:06.2), a 3:09 marathon and had won the 1971 national AAU cross-country title for 12-13-year-olds. Mary started the Olympic year against some big girls. She was 13 years old and 4'7" tall at the time. The others were 17 and older. Mary ran a cool, smart race and won going away. Her time was 4:35.0 at 1500 meters and 4:55.0 (an age-13 record) at the mile.

Olympic qualifying time in the 1500 was 4:20, but this was early in the year and would allow most of the season to get there. But it was not to be. Mary was hurt and her foot had to be placed in a cast.

She was recovered by cross-country season. Now 14, she could legally run in open races. She responded to the new opportunity by placing seventh in the AAU cross-country championships. One place higher and she would have made the international team—as the youngest member ever.

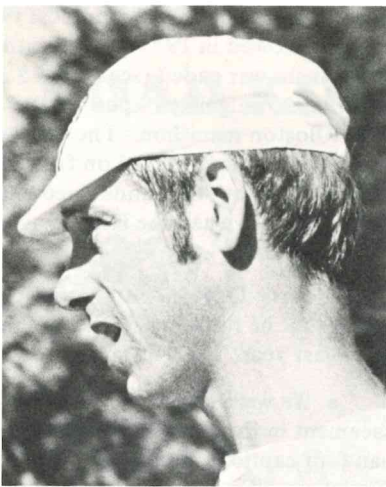
Back on the track indoors, Mary raced Francie Larrieu in San Francisco in January, finishing less than three seconds back with 4:49—her best time. Her 220 speed (26.2) indicates she'll go much faster.

Mary Decker: Garden Grove, Calif. (Blue Angels Track Club). 14 years old (born Aug. 4, 1958, in Flemington, N.J.). 5'0¼", 84 pounds. Ninth-grade student. Began racing in 1970 at age 11. Coached by Don DeNoon, world record holder for the indoor mile walk.

Racing: 220—26.2 (1972); 880—2:12.7 (72); mile—4:49.2 (73, indoors); marathon—3:09:43 (71, on 25.9-mile course).

Training: once a day, 5 days a week, year-round; 30-35 miles a week. Stressing heavy interval training (example, 40 x 440 at 80 seconds), 1-2 hours a day.

George Beinhorn



BILL WEIGLE

A year ago, the furthest thing from Bill Weigle's mind was an Olympic trip and a national walking championship. He was trying simply to get over his foot and leg troubles. (He wrote about them in the January issue, "Home Remedies.") Two years ago, he wasn't even a walker. Four years ago, he was doing nothing athletic.

"I decided to try race walking, just for fun, at the end of March (1971)," he recalls. "It was frustrating at first trying to get the form. But I got it well enough to really enjoy the sensation of walking, even more than running."

Still, with his form under control and his injuries cured, Weigle went to the Olympic 50-kilometer trial thinking "My chances were 100-1. I thought I could walk 4:20 if everything went right, but I also felt that several fellows who had the benefit of experience

(which I didn't have) would be in as good or better shape. Consequently, I had made absolutely no plans for Munich. In fact, my wife Pam thought I'd lost my head when I pulled into second place. She wanted to tell me to slow down so I wouldn't blow the whole race with a DNF!"

Bill stayed in second. He walked in Munich, and later won the AAU 50 (see "Long Walk in the Park," Jan. 73). He calls the Olympic race "both the most exciting and most painful experience of my life..."

"But I consider it a success for many reasons. First, there were 24 starters with faster times, and I finished 17th. Secondly, I didn't lose my head at the start and walked a sensibly paced race. Thirdly, I came from nothing four years ago while many of these guys were competing then. I had bad heel blisters on my right foot from 25 kilometers to the end. I wanted to ease up many times. After all, when you're 17th place, you might as well be 20th or 25th or even last in most people's minds. But every time I felt that way I'd see another walker dropping back, or the spectators would be clapping and yelling, or I'd remember where I was four years ago."

William Franklin Weigle: Monterey, Calif. 32 years old (born May 25, 1940, at Carlisle, Pa.). 6'0", 160-165 pounds. Married. Occupation: meteorologist. Began racing (running) in 1969 at age 29. Self-coached.

Racing: mile—6:56 (1972); 2 miles—14:48 (72); 6 miles—44:48 (71); 10,000m—46:55 (72); 15,000m—1:12:14 (71); 20,000m—1:36:22 (72); 50,000m—4:20:09 (72).



1976 Games

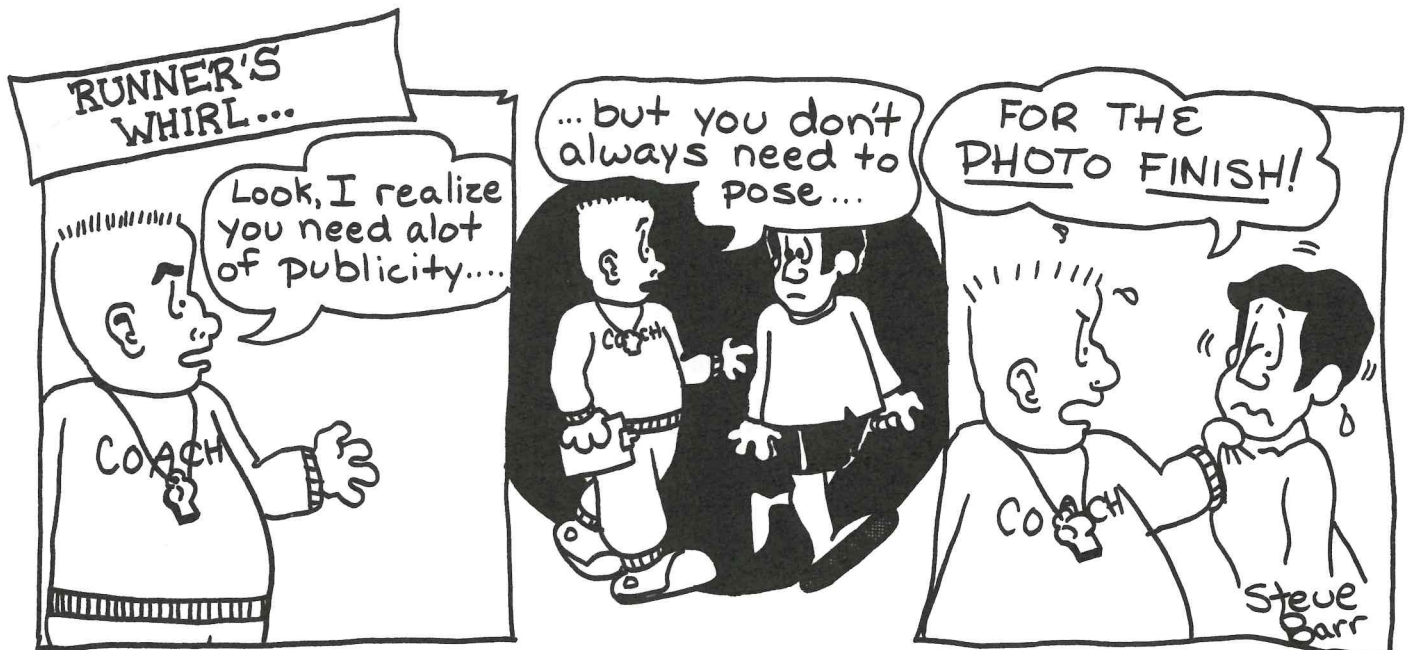
One-hundred thirty lucky individuals already are signed up for the Runner's World Olympic Tour to Montreal. The limit is 225. Don't wait until too late. Send a \$50 deposit now, or write information. RW, Box 366, Mt. View, Ca. 94040

Training: once a day, 6-7 days a week, year-round; about 70 miles a week. "The 70 miles per week normally includes 2-3 sustained efforts on the track of 5-20 miles, with 10 miles being the most common. The 10-milers normally average out to 8:00-8:30 per mile, while the longer ones may be a bit slower and the shorter ones a bit faster.

"I also do 1-2 walks of 10-20 miles on the road which average 9:00-10:00 per mile. Pace is dictated by how I feel most days. If I feel good, I train as fast as I can. If I feel bad, I stop before I reach the plodding stage, which seems to be about 10:00 per mile in my present condition.

"I did intervals about 9-10 times before the Olympic Trials, but have not done them since and feel I've been just as successful.

"I also don't hesitate to run, bicycle, cross-country ski, and hike with weights for variety, to overcome specific weaknesses, and when I have injuries."



RUNNING SHORTS

● The US Congress is showing increasing interest in sports, and may be on the verge of acting in some areas it thinks need cleaning up. Several congressmen have called for a full-scale investigation into the country's amateur athletic setup. This relates mainly to the Olympic effort.

A bill that hits athletes closer to home, however, was proposed last summer by California Congressmen Ronald Dellums. His Athletic Safety Act awaits action. It is designed to protect athletes against unnecessary injuries and drug abuse. How the legislation plans to do this is not clear.

Dellums says, "During the past few years there has been increasing concern about sports injuries and athletic safety. Such concern has been primarily evident in football and track."

A group called The Committee of Concerned Athletes is helping Dellums gather support for his bill. The address is 49 Davie Circle, Chapel Hill, N.C. 27514.

● William Proxmire, the running senator from Wisconsin, thinks the federal government officials should take care of their own health first, before worrying about other people's. He told heads of a dozen agencies that he intends to "delete funds entirely for limousines" from their budgets. "Giving up their limousines should cause no real hardship. Officials should drive their own cars to and from work. Taxis can be commanded to get officials up to (Capitol) Hill or to cocktail parties around town. In case of dire need, walking would both save funds and improve the health and efficiency of key members of the government."

Proxmire himself runs ("I'm a runner, not a jogger") to his office every day. The 57-year-old Democrat recently began a planned 1200-mile running tour of his home state. On the first leg of it, he went 250 miles in nine days.

● Dave Bedford briefly turned to bicycle racing—one race, "my first and my last"—after the Olympics. It was a 65-mile event in France. At one point, Bedford had a lead of several miles.

Then he started having trouble. He went off the course, got back on after losing his lead, then punctured a tire. He didn't bother to glue on the new one.

Despite frequent stops to replace his chain and the unglued tire, Bedford all but caught the winner. Dave made up the ground by reverting to a more familiar activity. Instead of pumping up the hills, he got off the bike and ran up.

"It seems strange," Bedford said, "that while I am quite prepared to run 25 miles on my own flat feet, it seems that much more difficult when you sit on a bike."

● Contrary to rumors, there will be no new, stiffer qualifying standard for the 1973 Boston marathon. The entry sheet for the April 16 race says, "To be eligible, a runner must have completed *any* previous sanctioned marathon within 3½ hours, *or in the past year* have completed an AAU sanctioned race of at least 15 miles within the following time limits: 1:45 for 15 miles and 2:30 for 20 miles. Comparable times will be accepted for races at metric distances of 25 kilometers or more." Comparable times are 1:50 for 25 kilos and 2:20 for 30 kilos.

Entries won't be accepted after April 2. Write Boston Athletic Association, Boston Garden, Boston, Mass. 02114. (Send self-addressed, stamped envelope if you expect a quick reply.)

The Road Runners Club of America will hold its national convention the day before the big race in Boston. It will be held Sunday the 15th in the Prudential Center.

● Finnish Olympic champions Lasse Viren and Pekka Vasala—along with steeplechase medalist Tapio Kentanen and 400 finalist Markku Kukkoaho—each were awarded \$2500 "stipends" to help them along with their running in 1973. The fact was openly advertised. What was that about amateurism being alive and well?

● French prime minister Pierre Messmer recently commented, "The quality of athletics is doubtless one element among many that determine the vitality of a country in the eyes of the surrounding world. The existence of elite athletes is also a valuable example for youth. Nevertheless, high-class athletics should not be distinguished above mass athletics. They complement each other. It is therefore not desirable to give one priority over the other."

● Dick Gregory is about to take

his first bite of solid food in almost two years. He vowed in 1971 to fast until the Vietnam war ended (see Nov. 73 *RW*). A year later, weighing 98 pounds, he ran the Boston marathon. The 40-year-old comedian has subsisted on fruit juice and has stayed at 98 pounds since last April. He'll eat when the last prisoners of war are home.

● Larry Lewis of San Francisco reports that he ran 2250 miles—over six a day—last year. He is now 105.

● We were jinxed on our picture placement in the February issue. No less than four captions didn't jive with the illustrations. On page 19, the formula for calculating the "ponderal index" should read, "height divided by the cube root of weight," not the other way around. Lloyd Slocum is the dog-sled driver at the *bottom* of page 30, not at the top. The two pictures of Bill Emerton on pages 36-37 should be switched. And the same with the shots of Elaine Pedersen and Russell Pate in the ad on page 47.

● *RW* contributors George Sheehan, John Pagliano, Robert Barnes and John Pagliano will be part of a seminar on sports medicine in San Francisco, April 28-29. For information, write to the California College of Podiatric Medicine, 1770 Eddy St., San Francisco, Calif. 94115.

● The AAU has turned down the distance committee's request for funds to send teams to the International cross-country meet. Unless a benefactor is found soon, no Americans will be racing there.

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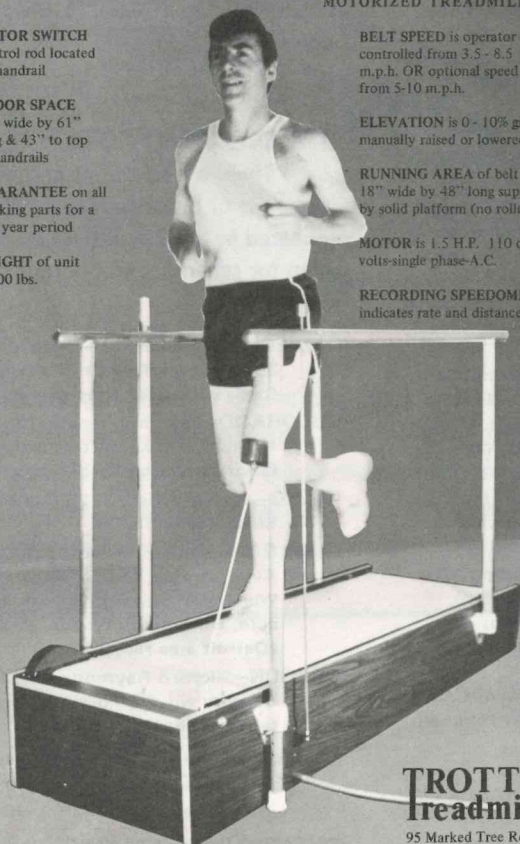
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NOTE:

Originally this race was scheduled to be a New England AAU championship event. However, the AAU does not include the states of Maine and Connecticut as belonging to New England. To avoid an awkward situation we did not apply for championship sanction.

NOTE:

Last year we received 142 entries, 110 participating. We're looking for a much larger field this year. Please avoid being a "no show".

NOTE:

We can't all be winners. The important thing for us masters is to participate!

APRIL COMING EVENTS

We try to include here all upcoming relay, invitational and conference meets of a major nature; all pro tour events; all national and AAU association championships; all marathons, and a few other races. But we can't list them if we don't know about them. So send schedules EARLY, to RW, Box 366, Mountain View, Calif. 94040.

These are the known April meets. Exact dates aren't known for these relay carnivals: American University (Washington, D.C.), State Record (Charleston, S.C.), Kentucky (Lexington, Ky.), Dogwood (Knoxville, Tenn.), Ohio (Athens, Ohio), Ohio State (Columbus), Queens-Iona (Randalls Island, N.Y.).

Starting points and times, entry restrictions and contacts are noted. Write ahead for information before traveling to races, because details often change without notice. Contacts for smaller local runs and walks were listed in the January issue, page 46.

NORTHEAST

- 1 Metropolitan AAU 15-kilometer, Scarsdale, N.Y. (open; Joe Kleinerman, 2825 Claflin Ave., Bronx, N.Y. 10468)
- 14 Pro indoor, Baltimore, Md. (Civic Center; ITA pros only)
- 16 Boston AA marathon, Hopkinton-Boston, Mass. (open to sub-3:30 runners; Will Cloney, Boston Garden, North Station, Boston, Mass. 02114)
- 27-28 Penn Relays, Philadelphia, Pa. (Franklin Field; college-invitational)
- 29 Eastern Regional AAU 10-kilometer, New York, N.Y. (Tibbett's Brook Park, 2 p.m.; Aldo Scandurra, 22 Monet Pl., Greenlawn, N.Y. 11740)

SOUTHEAST

- 7 Georgia AAU one-hour, Atlanta, Ga. (Lakewood Stadium, 10 a.m.; Billy Daniel, 380 Lofton Rd., Atlanta, Ga. 30309)
- 7-8 Southeastern Masters' Track, Raleigh, N.C. (North Carolina State U., 30 & up; P.O. Box 5576, State University Station, Raleigh, N.C. 27607)

- 13-14 Mountaineer Relays, Morgantown, W. Va. (West Virginia University; college-open)

MIDWEST

- 7 National AAU 25-kilometer (including Junior and Masters championships), Kansas City, Mo. (open; Carl Owczarzak, 4144 Booth Place No. 7, Kansas City, Kans. 66202)
- 7 Wisconsin USTFF indoor, Madison, Wisc. (Univ. of Wisconsin; Alf Harrer, Track Coach, Beloit College, Beloit, Wisc. 53511)
- 8 Northern Iowa marathon, Cedar Falls, Iowa (Univ. of Northern Iowa, noon; open; Jack Jennett, Track Coach, U. of Northern Iowa, Cedar Falls, Iowa 50613)
- 13 Pro indoor, Detroit, Mich. (Cobo Hall; ITA pros only)
- 20-21 Kansas Relays (college-invitational) and Kansas Relays marathon (open, 21st at 7 a.m.), Lawrence, Kans. (Bob Timmons, Track Coach, University of Kansas, Lawrence, Kans. 66044)
- 27-28 Drake Relays (college-invitational) and Drake Relays marathon (open, 28th, 9:30 a.m.), Des Moines, Iowa (Bob Ehrhardt, Track Coach, Drake University, Des Moines, Iowa 50311)

SOUTHWEST

- 3 Pro indoor, Ft. Worth, Texas (Convention Center; ITA pros only)
- 7 Pro indoor, Oklahoma City, Okla. (Myriad; ITA pros only)
- 7 Jacobs Invitational track, Norman, Okla. (Oklahoma University)
- 13-14 Texas Relays, Austin, Texas (University of Texas; college-invitational)
- 14 Oklahoma AAU 15-kilometer, Tulsa, Okla. (9 a.m.; open; Larry Adudell, 1849 N. Louisville, Tulsa, Okla. 74115)

WEST

- 7 San Miguel marathon, Agana, Guam (open; Joe Lawton, University of Guam, Box EK, Agana, Guam 96910)
- 7 Sacramento State Invitational track, Sacramento, Calif. (Sacramento State University; college-open)
- 8 Hawaiian marathon, Kahului to Kaanapali, Maui, Hawaii (open; Bob Getzen, Box 214, Hana, Maui, Hawaii 96713)
- 14 Cupertino marathon, Cupertino, Calif. (9 a.m.; open; Daniel O'Keefe, 20203 Camarda Ct., Cupertino, Calif. 95014)
- 14 Birch Bay marathon, Blaine, Wash. (noon; open; Jim Pearson, 521 17th St., Bellingham, Wash. 98225)
- 14 San Diego Relays, San Diego, Calif. (Balboa Stadium, college and open)
- 19-21 Hawaii Masters track (including AAU Masters decathlon championship), Honolulu, Hawaii (ages 30-up; Bob Gardner, 4504 Kahala Ave., Apt. A, Honolulu, Hawaii 96816)
- 27-28 Mt. San Antonio Relays, Walnut, Calif. (Mt. SA College; college-invitational)

CANADA

- 15 Alberta marathon, Calgary, Alberta (open; Lawrence King, 816 Canna Crescent, Calgary, Alberta, Canada)

INTERNATIONAL

- 1 International marathon, Turku, Finland (invitational; Suomen Urheiluliitto Ry, Box 25202, Helsinki, Fin.)
- 6 International Classic marathon, Marathon to Athens, Greece (invitational; Assn. Hellenique d'Athletisme Amateur, 25 Panepistimiou St., Athens, Greece)

RACE WALKING

- 15 Eastern AAU 50-mile track, West Long Branch, N.J. (open; Elliott Denman, 28 North Locust Ave., West Long Branch, N.J. 07764)
- 15 Missouri Valley AAU one-hour, Columbia, Mo. (Hickman H.S., 2 p.m.; open; Joe Duncan, 4004 Defoe Dr., Columbia, Mo. 65201)
- 15 National AAU 20-kilometer, Santa Barbara, Calif. (10 a.m.; open; Jim Hanley, 17214 Welby Way, Van Nuys, Calif. 91406)
- 28 National AAU one-hour, Cornwells Heights, Pa. (10 a.m.; open; Howard Palamarchuk, 6357 Crescent Ave., Cornwells Heights, Pa. 19020)
- 29 Pacific AAU 30-kilometer, Stockton, Calif. (open; Bill Ranney, 1 Barker Court, Fairfax, Calif. 94930)

MARATHON CORRECTIONS

- Shamrock**—Virginia Beach, Va., March 17. John P. Keary, P.O. Box 303, Virginia Beach, Va. 23458 (new race—not previously listed)
- Paavo Nurmi**—Hurley, Wisconsin, Aug. 11 (date not previously listed)
- Quincy**—Quincy, Ill., August 18. Don Schroeder, 425 S. 14th, Quincy, Ill. 62301 (date not previously listed; new contact)

RACING CONTACTS

These are additions and corrections to the list of distance racing officials that appeared in the January issue. Write to them for schedules and details of races in their areas.

CALIFORNIA (northern)—Richard Perry, 3909 Pepper Tree Ct., Redwood City, Calif. 94061 (address change).

COLORADO—Joseph Arrazola, 12336 East Kentucky Ave., Aurora, Colo. 80010 (accidentally omitted).

IDAHO—John Mitchell, 3225 Camrose Lane, Boise, Idaho 83709.

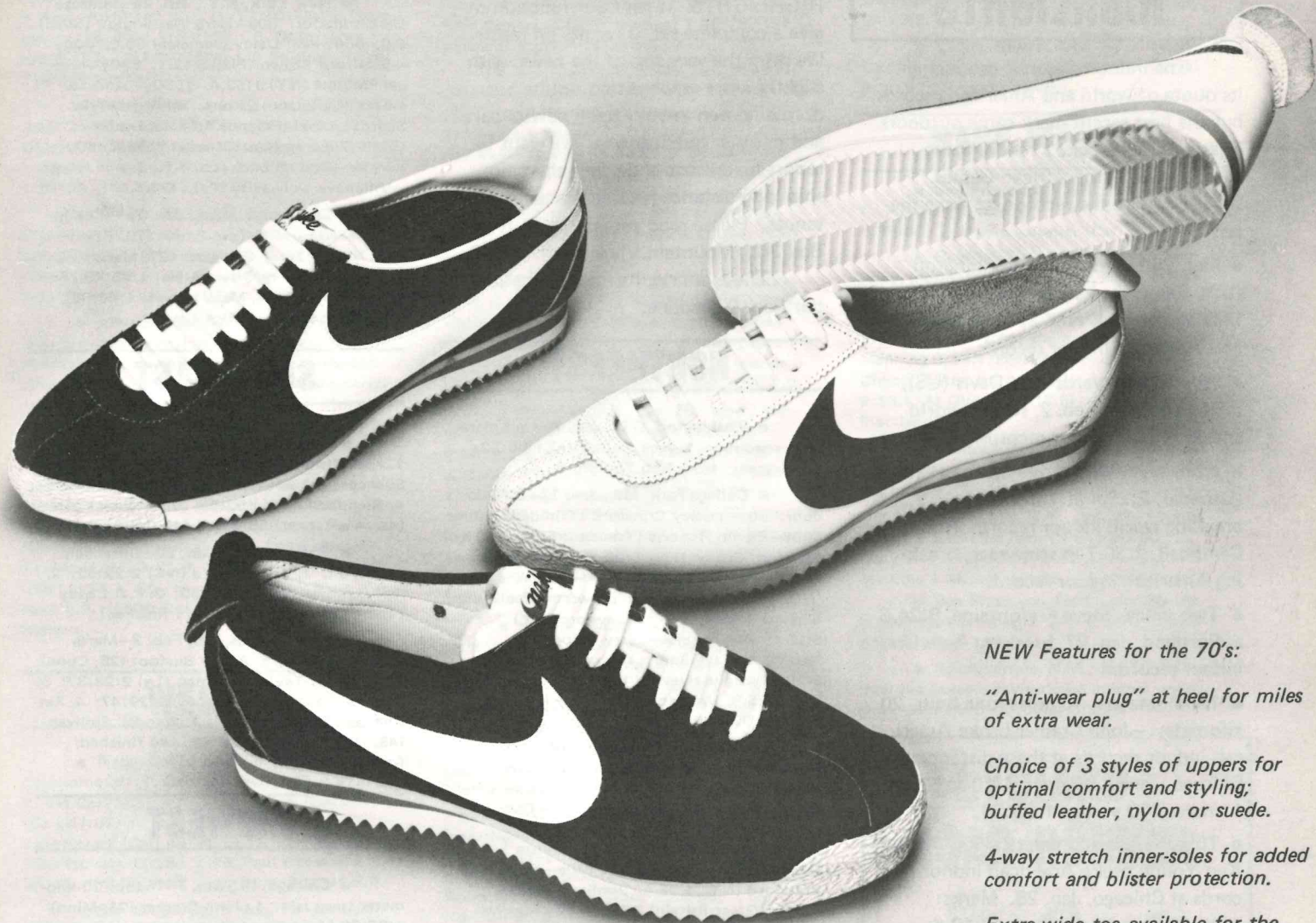
MICHIGAN—William Keller, 2519 Clifton Ave., Lansing, Mich. (replaced Dennis Williams); Edward Kozloff, 10144 Lincoln, Huntington Woods, Mich. 48070 (Detroit area races).

OREGON—Richard Raymond, 2575 N.W. Lovejoy No. 37, Portland, Ore. 97210 (address change).

CALIFORNIA RACE WALKING (NORTHERN)—Steve Lund, 402 Via Hidalgo, Greenbrae, Calif. 94904.

ONTARIO RACE WALKING—Chris Pickard, COTFA, Box 612 (not 162), Station F, Toronto, 5, Ontario.

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The Athletic Dept.

RACING HIGHLIGHTS

The indoor season is producing its quota of world and American records, but the best recent mark came outdoors. That was Ben Jipcho's record-tying steeplechase at the African Games.

Here are the records set since the last issue:

- **Men's 50 yards**—Herb Washington (US), 5.0 in the heat and again in the final at Toronto, Feb. 2, tying world and American indoor records.
- **Women's 50 yards**—Iris Davis (US), 5.5 at Toronto, Feb. 2, setting world and American indoor records.
- **Women's 1000 yards**—Glenda Reiser (Canada), 2:29.4 at Toronto, Feb. 2, breaking world indoor record; Robin Campbell, 2:30.7 in same race, breaking American indoor record.
- **Two miles**—Steve Prefontaine, 8:24.6 at Portland, Jan. 27, breaking American indoor record.
- **15 kilometers, 10 miles, one hour, 20 kilometers**—John Cramer broke American indoor records at these distances in Chicago, Jan. 7. Marks: 49:04; 52:38; 11 miles 700 yards; 1:05:30.
- **15 miles, 25 kilometers, 30 kilometers**—Ken Young broke American indoor records at Chicago, Jan. 28. Marks: 1:26:09.0; 1:29:20.0; 1:48:19.6.
- **Steeplechase**—Ben Jipcho (Kenya), 8:20.8 at Lagos, Nigeria, Jan. 15, tying world record.
- **Men's 50-yard hurdles**—Danny Smith (Bahamas), 5.8 at Toronto, Feb. 2, tying world indoor record; Tom Hill (US), non-winning 5.8 in same race, tying world and American records; Rod Milburn (US), 5.8 at Cleveland, Feb. 3, tying world and American records.
- **Women's 50-yard hurdles**—Mamie Rallins (US) and Lacey O'Neal (US), 6.4 at Toronto, Feb. 2, tying world and American indoor records.

In the marathon, Doug Schmenk ran 2:18:06 to win the Mission Bay race at San Diego; Tom Fleming did 2:19:16 in the Jersey Shore event. Amby Burfoot, 1968 Boston winner, ran the second best time of his life with 2:20:24 at New Orleans. Judy Ikenberry missed three

hours by just five seconds at San Diego for the fastest women's time of the young year.

As the headline says, these are HIGHLIGHTS. It isn't our function to give a complete set of results on meets. We skim the very top of the news, with slightly more emphasis on results not normally seen in your daily newspapers and in other publications. We want to report marathons and other championship long distance races at standard distances. Please send summaries to RW, Box 366, Mountain View, Calif. 94040.

These are results received before our Feb. 9 deadline.

NORTHEAST

● **Washington, D.C., Jan. 7**—Half-marathon road run: 1. Jack Fultz (Va) 1:05:22. (25 degrees; from Bob Thurston).

● **College Park, Md., Jan. 12**—CYO indoor: 60y—Hasely Crawford (Trinidad) 5.9. 500y—Edwin Roberts (Trinidad) 57.8. 600y—Beauford Brown (Fla) 1:09.1. 880y—Mark Winzenried (Cal) 1:54.0. Mile—Bob Wheeler (NC) 4:00.5. 2-mile—Ian Stewart (Great Britain) 8:28.4; 2. Jim Crawford (NY) 8:29.0. 60y hurdles—Larry Shipp (La) 7.0. Mile relay—Sports International (DC) 3:16.4. 2-mile relay—Villanova University (Pa) 7:36.8. Women's 60y hurdles—Lacey O'Neal (DC) 7.6.

● **Uniondale, N.Y., Jan. 13**—New York Knights of Columbus indoor: 60y—Hasely Crawford (Trinidad) 6.1. 500y—Beauford Brown (Fla) 56.4. 600y—Dennis Walker (NY) 1:11.1. 880y—Rick Wohlhuter (Ill) 1:53.5. 1000y—Byron Dyce (NY/Jamaica) 2:10.7. Mile—Jim Crawford (NY) 4:03.4. 2-mile—Brendan Foster (Great Britain) 8:38.6. 60y hurdles—Godfrey Murray (Mich/Jamaica) 7.3. Women's 300—Joanne Octaggert (Canada) 40.2. Women's 600y—Pat Helm (Pa) 1:26.9.

● **Philadelphia, Pa., Jan. 19**—Philadelphia Track Classic indoor: 60y—Mel Pender 6.0. 440y—Nick Leone (Mass) 49.4. 600y—Dennis Walker (NY) 1:11.6. 880y—Ken Sparks (Ind) 1:52.9. 1000y—Brian McElroy (Pa) 2:09.5. Mile—Marty Liquori (Fla) 4:03.8. 2-mile—Jim Crawford (NY) 8:36.6. 60y hurdles—Willie Davenport (La) 7.3. Mile relay—Philadelphia Pioneer Club 3:16.1. 2-mile relay—Villanova University (Pa) 9:49.6. Over-40 mile—Frank Pflaging (40, Md) 4:28.5.

● **Arlington, Va., Jan. 21**—Two-hour track run: 1. Tom Childers (Va) 21 miles 1481 yards; 2. Ray Morrison (26) 21m 1190y. . . 7. Tony Diamond (43/1st vet) 19m 814y. (from Bob Thurston).

● **Asbury Park, N.J., Jan. 21**—Jersey Shore marathon: 1. Tom Fleming (21, NJ) 2:19:16; 2. Joel Pasternak (NJ) 2:25:08; 3. Norm Patenaude (Ont/Canada) 2:26:12; 4. Art Moore (NJ) 2:29:22; 5. Gary Wallace (NY) 2:30:48; 6. John Garlepp (NY) 2:37:07; 7. John Skislak (NJ) 2:37:41; 8. Alan Penberthy (NY) 2:39:41; 9. Peter Ku-

chinski (Mass) 2:39:53; 10. James Bowles (NY) 2:40:00. . . 17. Joe Burns (43, NJ/1st vet) 2:43:52. . . 52. Patricia Barrett (18, NJ/1st woman) 3:04:50. (132 finished; from Elliott Denman).

● **New York, N.Y., Jan. 26**—Millrose Games indoor: 60y—Herb Washington (Mich) 6.0. 500y—Alf Daley (Jamaica) 58.6. 600y—Beauford Brown (Fla) 1:12.1. 880y—Marcel Philippe (NY) 1:52.4. 1000y—Andrzej Kupczyk (Poland) 2:09.1. Mile—Henryk Szordykowski (Poland) 4:04.4. 2-mile—Grant McLaren (Ont/Canada) 8:36.8. 60y hurdles—Rod Milburn (La) 7.0. 2-mile relay—Villanova University (Pa) 7:33.6.

● **Cambridge, Mass., Jan. 28**—30-kilometer road run: 1. Tom Smith (19, RI) 1:40:45; 2. Terry Gallagher (27, Mass) 1:45:15; 3. Larry Olsen (Mass) 1:45:49; 4. Walter Renaud (41, Mass/1st vet) 1:46:07. (105 finished; from Rick Levy).

SOUTHEAST

● **Troy, Ala., Jan. 6**—10-mile road run: 1. Ken Misner (23, Fla) 52:14; 2. Dennis Spencer (Ga) 52:40; 3. Lee Fidler (Ga) 52:47; 4. Rick Curlin (Ga) 52:56. . . 12. Nick Costes (46, Ala/1st vet) 56:41. . . (49 finished).

● **Raleigh, N.C., Jan. 20**—Duraleigh marathon: 1. Ed Hereford (NC) 2:22:32; 2. Jeff Galloway (NC) 2:28:50; 3. P. J. Leddy (Tenn/Ireland) 2:33:24. (25 finished).

● **New Orleans, La., Feb. 3**—Mardi Gras marathon: 1. Amby Burfoot (26, Conn) 2:20:24; 2. Taylor Aultman (La) 2:28:37; 3. Jean-Paul Eudier (La/France) 2:29:47; 4. Pat Chester (Fla) 2:29:53. . . 7. Wendall Sullivan (48, Ohio/1st vet) 2:54:42. (44 finished; from Cy Quinn).

MIDWEST

● **Chicago, Ill., Jan. 7**—Indoor 20-kilometer track run: 1. John Cramer (21, Minn) 1:05:30 (American indoor record; also records at 15 km. 49:04, 10 miles 52:38, one hour 11m 700y); 2. Phil Davis (26, Ill) 1:06:13. (from Ken Young).

● **Kansas City, Mo., Jan. 19-20**—NAIA indoor championships: 60y—Willie McGee (Miss) 440y—Larry Ellis (Miss) 50.2. 600y—Geter (Tex) no time available. 880y—Mike Boit (NM/Kenya) 1:57.4. Mile—Mike Boit 4:12.3. 2-mile—Matthews (Cal/New Zealand) 8:57.6. 60y hurdles—Rod Milburn (La) 7.0. Mile relay—Jackson State (Miss) 3:21.2. 2-mile relay—U. of Nebraska/Omaha 7:51.0.

● **Chicago, Ill., Jan. 28**—Midwest RRC indoor track marathon: 1. Ken Young (31, Ill) 2:41:29.4 (American indoor records en route, 15 miles 1:26:09; 25 km. 1:29:20; 30 km. 1:48:19.6); 2. Ron Gayer (31, Ill) 2:59:10.2; 3. Robert Bruce (51, Ill) 3:02:37. (7 finished).

● **Cleveland, Ohio, Feb. 3**—Cleveland Knights of Columbus indoor: 50y hurdles—Rod Milburn (La) 5.8 (ties world and American indoor records). (other results not available).

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SOUTHWEST

● **Dallas, Texas, Jan. 6**—Southwestern AAU 20-mile: 1. Tom Hess (22, Tex) 1:44:31; 2. Paul Hoffmann (20, Tex) 1:52:05; 3. Dave Moore (18, Tex) 1:53:52. . . 6. Norm Alsobrook (42, Tex) 2:02:32. (39 finished; from Talmage Morrison).

● **Tulsa, Okla., Jan. 13**—Oklahoma AAU 25-kilometer: 1. Terry Ziegler (22, Okla) 1:25:46; 2. John Cavanaugh (25, Okla) 1:26:25. . . 8. Bob Martin (52, Okla/1st vet) 1:57:04. (18 finished).

● **Tempe, Ariz., Jan. 21**—Arizona 25-kilometer: 1. Skyler Jones (Ariz) 1:20:25; 2. Doug Conley (Ariz) 1:20:45; 3. Keith Munson (Ore) 1:24:22. . . 21. Steve Stephenson (42, Ariz/1st vet) 1:31:19. (69 finished).

● **Albuquerque, N.M., Jan. 27**—Albuquerque Jaycees Invitational indoor: 60y—Harrington Jackson (Cal) 6.0. 220y—Harold Williams (DC) 22.0. 600y—Mike Cason (Ariz) 1:12.5. 1000y (one lap short, actual distance 824y)—Mike Boit (NM/Kenya) no time. Mile—Kip Keino (Kenya) 4:02.7. 2-mile—Frank Shorter (Fla) 8:47.4. 60y hurdles—Tommy Lee White (Cal) 7.1. Mile relay—Southern Methodist University (Tex) 3:20.2. Women's 60y—Janet Brown (Colo) 6.9. 300y—Marilyn Neufville (Cal/Jamaica) 35.4. 600y—Wendy Koenig (Colo) 1:21.8. 1000y—Carol Hudson (NM) 2:34.7. 60y hurdles—Bobette Krug (Cal) 8.2. (5000 feet altitude; from Ken Hansen).

WEST

● **Napa, Calif., Jan. 7**—Pacific AAU 15-kilometer: 1. George Stewart (Cal) 47:03; 2. Vic Cary (Cal) 47:07; 3. Darryl Beardall (Cal) 47:07; 4. Dan Anderson (Cal) 47:23; 5. Dale Severy (Cal) 48:31. . . 12. Bob Malain (Cal/1st vet) 52:28. . . 16. Paul Reese (55, Cal) 54:36. (32 finished; from John Butterfield).

● **San Diego, Calif., Jan. 13**—Mission Bay marathon: 1. Doug Schmenk (22, Cal) 2:18:06; 2. Gary Dobrenz (26, Cal) 2:27:13; 3. Peter Fredriksson (26, Cal/Sweden) 2:27:26; 4. Joe Toledo (25, Cal) 2:27:48; 5. Ken Moffit (20, Cal) 2:28:19; 7. Bob Price (26, Cal) 2:30:47; 8. Mark Kushner (20, Cal) 2:31:10; 9. Bill Anderson (29, Cal) 2:32:43; 10. Dave Russell (25, Cal) 2:33:16. . . 12. Dave Waco (40, Cal/1st vet) 2:34:21. . . 44. Wayne Zook (55, Cal) 2:53:43. . . 66. Judy Ikenberry (30, Cal) 3:00:05. (226 finished).

● **Pocatello, Idaho, Jan. 20**—Idaho State Invitational indoor: 100y—Carl Larson (Idaho/Jamaica) 9.7. 300y—Brent Webster (Utah) 30.6. Mile—Jim Johnson (Wash) 4:03.4. 3-mile—John Gregorio (Colo) 13:43.4. Mile relay—Colorado University 3:16.7.

● **Los Angeles, Calif., Jan. 20**—Sunkist Invitational indoor: 60y—Carl McCullough (Ariz) 6.1. 500y—Wes Williams (Cal) 58.7. 600y—Fred Newhouse (Wa) 1:11.1. 1000y—Rick Wohlhuter (Ill) 2:08.7. Mile—Dave Wottle (Ohio) 4:06.1; 2. Kip Keino (Kenya) 4:06.1. 2-mile—Steve Prefontaine (Ore) 8:27.4. 60y hurdles—Lance Babb (Cal) 7.2. Mile relay—Philadelphia Pioneer Club 3:20.8. Women's 500y—Jarvis Scott (Cal) 1:07.6.

● **Portola Valley, Calif., Jan. 21**—Pac-

ific AAU 20-kilometer: 1. John Sheehan (Cal) 1:04:38; 2. Bob Darling (Cal) 1:05:14; 3. Darren George (Cal) 1:05:29; 4. Mitch Kingery (16, Cal) 1:06:06; 5. Daryl Zapata 1:07:14. . . 14. Ken Napier (40, Cal) 1:09:59. . . 39. Paul Reese (55, Cal) 1:16:17. . . 62. Fran Conley (Cal/1st woman) 1:26:28. (91 finished; from Richard Perry).

● **San Francisco, Calif., Jan. 26**—Examiner Games indoor: 60y—Chuck Smith (Cal) 6.1. 440y—Martin McGrady (Cal) 49.1. 880y—Mark Winzenried (Cal) 1:51.3. Mile—Kip Keino (Kenya) 4:03.8; 2. Duncan Macdonald (Hawaii) 4:03.8. 2-mile—Marty Li-quori (Fla) 8:42.0. 60y hurdles—Lance Babb (Cal) 7.1. Women's 60y—Mabel Ferguson (Cal) 6.8. Mile—Francie Larrieu (Cal) 4:46.8.

● **Portland, Ore., Jan. 27**—60y—Mays (Ore) 6.1. 500y—Fred Newhouse (Wa) 57.7. 1000y—Greg Gibson (Wash) 2:10.6. Mile—Jim Johnson (Wash) 4:02.4. 2-mile—Steve Prefontaine (Ore) 8:24.6 (American indoor record). 60y hurdles—Jerry Wilson (Cal) 7.2.

● **Orange, Calif., Jan. 28**—World Masters marathon: 1. Ron Kurrle (24, Cal) 2:26:08; 2. Orville Atkins (36, Cal) 2:28:22; 3. Carlos Alfaro (27, Cal) 2:33:20; 4. Dave Waco (40, Cal/1st vet) 2:33:45; 5. Bill Anderson (29, Cal) 2:34:55. . . 8. David Villarreal (16, Cal/1st junior) 2:42:12. . . 142. Tom Bassler Jr. (9) 4:10:23. . . 145. Fred Grace (75, Cal) 4:11:01. (184 finished; from Bill Selvin).

● **Seattle, Wash., Feb. 3**—Seattle Invitational indoor: 60y—Willie Deckard (Cal) 6.0. 440y—Fred Newhouse (Wa) 48.5. 880y—Clay Lowrey (Ore) 1:54.2. Mile—Jim Johnson (Wash) 4:01.7; 2. Duncan Macdonald (Hawaii) 4:01.8. 2-mile—Don Kardong (Wash) 8:41.0. Women's 880y—Brenda Batchelor (BC/Canada) 2:16.0. Mile—Francie Larrieu (Cal) 4:40.7.

● **Las Vegas, Nev., Feb. 3**—Las Vegas marathon: 1. Leonard Suarez (24, Ariz) 2:31:20; 2. John Butterfield (35, Cal) 2:34:05. . . 5. Dr. Alex Ratelle (48, Minn) 2:43:47. . . 19. Frank McCabe (55, Colo) 2:56:56. . . 59. Norman Bright (63, Wash). . . 76. Gwendolyn Brauer (10, Nev) 3:44:59. (100 finished; from John Romero).

CANADA

● **Toronto, Ontario, Feb. 2**—Star-Maple Leaf indoor: 50y—Herb Washington (Mich) 5.0 (ties world and American indoor records; also tied records in heats). 50y hurdles—Danny Smith (Fla/Bahamas) 5.8 (ties world indoor record); 2. Tom Hill (Ark) 5.8 (ties WIR and AIR). Women's 50y—Iris Davis (Tenn) 5.5 (world and American indoor record). 1000y—Glenda Reiser (Ont) 2:29.4 (world indoor record); 2. Robin Campbell (14, DC) 2:30.7 (American indoor record). 50y hurdles—Mamie Rallins (Tenn) 6.4 (ties world and American indoor records); Lacey O'Neal (DC) 6.4 (ties WIR and AIR). (only these results available).

INTERNATIONAL

● **Sao Paulo, Brazil, Jan. 1**—Sao Silvestre New Year's Eve road race (8.7 kilo-

meters): 1. Victor Mora (Colombia) 23:24.4; 2. Mario Perez (Mexico) 24:06.2; 3. Pekka Paivarinta (Finland) 24:17.0; 4. David Black (Great Britain) 24:25.4; 5. Tapio Kantanen (Finland) 24:26.2; 6. Willy Polleunis (Belgium) 24:31.0; 7. Jack Bachelor (US) 24:33.0.

● **Lagos, Nigeria, Jan. 15**—African Games: steeplechase—Ben Jipcho (Kenya) 8:20.8 (ties world record).

RACE WALKS

● **San Francisco, Calif., Dec. 31**—Pacific AAU 20-kilometer: 1. Bill Ranney (Cal) 1:38:08; 2. Wayne Glusker (Cal) 1:46:56.

● **Boulder, Colo., Jan. 6-7**—24-hour relay, indoor track (alternate miles): Colorado Track Club 162 miles 275 yards (Jerry Brown 7:05.2 average, Tom Gloyd 9:50.5, Floyd Godwin 7:29, Vic Karels 8:55.6, Joe Manning 9:39.1, Pete Van Arsdale 7:37.4, Chuck Hunter 9:24.3, Chris Amoroso 9:13.1, Al Quiller 10:17.5). (from Jack Mortland).

● **Kansas City, Mo., Jan. 20**—NAIA indoor championships: 2-mile walk—Steve Tyrer (Ore) 15:04.2.

● **New York, N.Y., Jan. 21**—10-mile walk: 1. Steve Hayden (NY) 1:30:50; 2. Gary Westerfield (NY) 1:30:51. . . 6. Ellen Minkow 1:46:44. (from Jack Mortland)

● **San Francisco, Calif., Jan. 26**—Examiner Games indoor: 2-mile walk—Goetz Klopfer (Cal) 14:12.4.

● **Albuquerque, N.M., Jan. 27**—Albuquerque Jaycees Invitational indoor: mile walk—Jerry Brown (Colo) 6:56.8.

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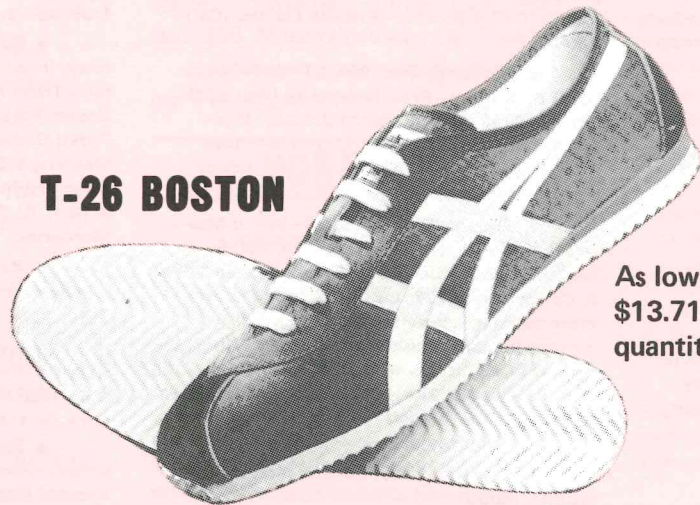


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Tiger (T-24) Cortez	6-13	Leather	White	Training	10.38 oz.	17.95	17.41	16.51	15.97	15.43
Tiger (T-21) Bangkok	3-13	Suede	Blue	Training/Racing	7.36 oz.	15.95	15.47	14.67	14.19	13.71
Tiger (T-6) Vickka II	6-13	Leather	White	Training	12.9 oz.	19.95	19.35	17.75	17.15	16.95
Tiger (T-4) Tahoe	3-13	Suede	Blue	Training/Racing	8.34 oz.	17.95	17.41	16.51	15.97	15.43
Nike Nylon Obori	3-13	Nylon	Blue	Racing	8.18 oz.	15.95	15.47	14.67	14.19	13.71
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Tiger Helsinki (Spike)	6-13	Suede	Blue	Racing	6.49 oz.	17.95	17.41	16.51	15.72	15.20
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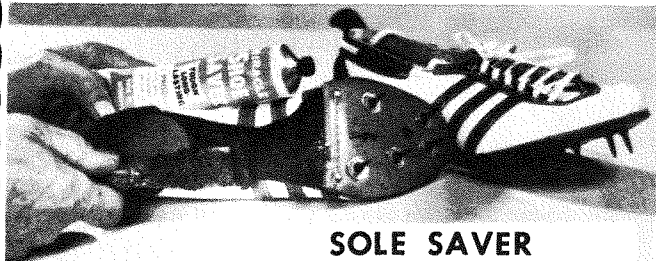
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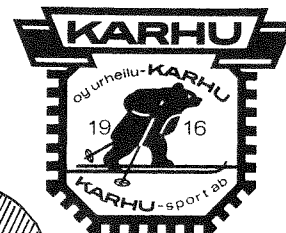
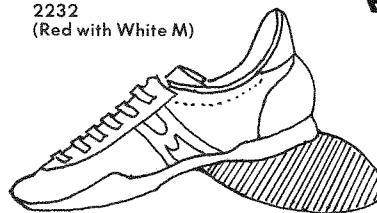
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READERS' COMMENTS

VALERIY BORZOV

I find it highly ridiculous, but not surprising upon the release of your Valeriy Borzov "manufacture" story (Jan. 73), that the double Olympic champ was not stripped of his crowns. It's obvious that his profession for the last six years has been training for the Olympics. At least we now know where the Soviets have been spending all the money that they have not been using on their space program.

It is also clear that if Del Meriwether or John Carlos had the advantages of a personalized, computerized, scientific program like Borzov's, they would not have run 9.0 for 100 yards; they would have run it for 100 meters!

In (Borzov's) case of a purely professional athlete obtaining everything from his professionalism and truly having an "unfair advantage," nothing is done.

Ed Grant Jr.

New Providence, N.J.

BANNED SHOES

The California Penal Code, section 6350, now prohibits the importation into the state for commercial purposes, the possession with intent to sell, or the sale of kangaroo skins in any form because the animal is an endangered species. I am sure that most coaches are not aware of this law, and indeed many sporting good dealers are not either. However, I believe that all conservation-minded that are concerned about endangered species will not want to purchase track shoes made out of the skins of kangaroo.

Unless the buying public forces the shoe companies to change their policies by purchasing shoes made only from cowhide or nylon, these companies will continue to illegally import the skins of these animals that are now in danger of become extinct.

Ray Kring

Track Coach,

Allan Hancock College

Santa Maria, Calif.

BARE FEET

Hurray for the Barefoot Brigade ("Barefoot is still Best," Jan. 73)! I always feel like some kind of mutant if I shuffle around in spiked shoes. It's

much more comfortable and natural to run in bare feet. I run all my 10,000-meter track races on Tartan in bare feet, and though my times (circa 32-33 minutes) are hardly world class, they're faster than I run in shoes. Other runners ask, "How on earth can you run in bare feet?" and then take their shoes off after a race to reveal blisters all over their feet, toenails held on with plaster (tape) and general disfigurement on the toes. I haven't got a mark on my feet.

The feet naturally get hard if you do a fair amount of road training in shoes, and a nightly rub with surgical spirit helps. The only other preparation I take before a race (in bare feet) is about two days before, when I individually tape the middle three toes on each foot. In a 10,000, these three toes, pushing off at each stride, are the biggest wear-and-tear danger.

Bruce Tulloh won the 1966 European 5000 with a last 800 under two minutes, in bare feet. I remember seeing John Farrington (Australian 2:12 marathoner) run a steeplechase in bare feet on a rough cinder track in 1963. I shuddered to see his first few steps after each water jump, but he won.

Cliff Temple

Folkestone, England

ENERGY BURNING

Hold everything now! A little discrimination in editing, please. The report (in News and Views, "Research Data," Jan. 73) accepts, or incorrectly concludes, that total energy expenditure in horizontal running is constant and independent of speed. Never! Automobiles going 90 mph consume more fuel per mile than automobiles going 30, and humans running four-minute miles consume more energy than those going eight, for the simple reason that the higher speeds push either machine beyond its natural operating level and more fuel is required to compensate for the higher demand. The notion of constant energy expenditure would be true only if machines and bodies worked at constant efficiency.

In other words, it isn't imagination when a runner feels exhausted after an all-out race over the same distance he can otherwise do in a breeze.

Charles Cherry Jr.

Auburn, N. Y.

NEXT ISSUE: "Running's New Frontier"—exploring the territory of the new runner who goes beyond fitness, beyond competition.

WOMEN

I have to write to protest the little boy wish fantasy (cartoon) on page 45 of the January *RW*. If you're looking for anatomy to poke fun at, how about the photo 10 pages previous of all those flabby (men's) bottoms and sloping shoulders.

In "Here's Where We Stand" (Jan. 73), you say some nice things about running being a sport for everyone who cares to do it. You degrade that statement, along with all the women who run, by printing such a drawing.

Susan Gaffney

Brookline, Mass.

THE "NEW" R.W.

Since your announcement of a change to a monthly publication policy, I have been concerned over the future quality of your magazine. With the arrival of your Jan. 73 issue, my worries were erased. *RW* has not only maintained its image but, in my opinion, improved with the addition of the color pages and the change from two columns to three. The articles themselves are great as always. I especially enjoyed the various selections on shoes.

John Mallon

Arlington, Va.

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SPRINTS (STARTS)

1. JIM HINES, USA ('68 Olympic 100m champ.)
2. VALERIY BORZOV, USSR ('72 Olym. 100-200m champ.)
3. TOMMIE SMITH, USA ('68 Olympic 200m champ.)

SPRINTS (FULL STRIDE SPRINTING)

4. CHARLIE GREENE, USA (3rd, '68 Olym. 100m)
5. LARRY BLACK, USA (2nd, '72 Olym. 200m)
6. LEE EVANS, USA ('68 Olympic 400m champ.)
7. JULIUS SANG, KEN (3rd, '72 Olympic 400m)
8. JOHN SMITH, USA (world record at 440yds)

MIDDLE AND LONG DISTANCES

9. PETER SNELL & RALPH DOUBELL (Olym. champs.)
10. DAVE WOTTLE, USA ('72 Olympic 800m champ.)
11. JIM RYUN vs. KIP KEINO (top 1,500m runners)
12. PEKKA VASALA vs. KIP KEINO ('72 Olym. 1500m)
13. LASSE VIREN vs. STEVE PREFONTAINE ('72 5000m)
14. DAVE BEDFORD vs. MOHAMED GAMMOUDI ('72 O)
15. RON CLARKE, MAMO WOLDE, NAFTALI TEMU
16. FRANK SHORTER, USA ('72 Olym. Marathon champ.)

HIGH HURDLES

17. ROD MILBURN, USA ('72 Olym. 110m champ.)
18. WILLIE DAVENPORT, USA ('68 Olym. 110m champ.)
19. THOMAS HILL, USA (3rd, '72 Olympic 110m)
20. EARL McCULLOUGH, USA (co-world record holder)

INTERMEDIATE HURDLES

21. JOHN AKII-BUA, UG ('72 Olympic 400m champ.)
22. RALPH MANN, USA (2nd, '72 Olympic 400m)
23. DAVID HEMERY, GB (3rd, '72 Olympic 400m)

HIGH JUMP

24. DICK FOSBURY, USA ('68 Olympic champ. "flop")
25. DWIGHT STONE, USA (3rd, '72 Olympics)
26. VALERIY BRUMEL, USSR (ex-world record holder)
27. ED CARUTHERS, USA (2nd, '68 Olympics)

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28. PAT MATZDORF, USA (world record holder)

LONG JUMP

29. BOB BEAMON, USA (world record holder)
30. RALPH BOSTON, USA ('60 Olympic champ.)
31. RANDY WILLIAMS, USA ('72 Olym. champ.)
32. IGOR TER-OVANESYAN, USSR (ex-world record)
33. HANS BAUMGARTNER, WG (2nd, '72 Olympics)

TRIPLE JUMP

34. VIKTOR SANHEYEV, USSR ('72 Olympic champ.)
35. JORG DREHMEL, EG (2nd, '72 Olympics)
36. JOSEF SCHMIDT, POL ('60 & '64 Olym. champ.)

POLE VAULT

37. BOB SEAGREN, USA (2nd, '72 Olympics)
38. WOLFGANG NORWIG, EG ('72 Olympic champ.)
39. JOHN PENNEL, USA (ex-world record holder)

SHOT PUT

40. RANDY MATSON, USA (world record holder)
41. GEORGE WOODS, USA (2nd, '72 Olympics)
42. WLADYSLAW KOMAR, POL ('72 Olym. champ.)
43. AL FEUBERBACH, USA (indoor world record)

DISCUS THROW

44. LUDVIK DANEK, CZECH ('72 Olym. champ.)
45. JAY SILVESTER, USA (2nd, '72 Olympics)
46. AL OERTER, USA (4-time Olympic champ.)

JAVELIN THROW

47. JANIS LUSIS, USSR ('68 Olympic champ.)
48. KLAUS WOLFERMANN, WG ('72 Olym. champ.)
49. JORMA KINNUNEN, FIN (ex-world record)

HAMMER THROW

50. ROMUALD KLIM, USSR ('64 Olym. champ.)
51. GYULA ZSIVOTZKY, HUG ('68 Olym. champ.)

A REVOLUTIONARY NEW STOPWATCH THE HARPER ACCUSPLIT!



WHAT IS A DIGITAL STOP WATCH?

It's the watch of the future, the first revolutionary change in sports timing since the invention of the stop watch. The electronic digital stop watch provides an immediate numeral readout for timing applications. No squinting at numbers and ticks, as with a mechanical stop watch. No wondering whether a minute hand is on the red or black. No need to force your tired eyes to determine if the tenth hand is right on the fourth tick or just past it. You get an exact, unambiguous, immediately available readout of the elapsed time. Quick, easy, unmistakable.

We at Track & Field News have waited with high hopes for the development of a good digital timer, but all models we have seen fell far short of the needs of the track fan. But when Harper Time & Electronics, a bright new firm right in our own backyard (the heart of one of the most important electronics areas of the world), came to us with their working model of the Accusplit, it was a dream come true.

WHY HARPER?

We had offered our carefully determined specifications to firms engaged in the competition to produce the first truly desirable workable digital timer, and Harper has been the only one to meet our requirements—and exceed them! These are the eight major points we had specified:

1. **Readability under All Conditions.** Digits had to be large and readable in both sunlight and darker conditions, such as twilight, night meets, indoors. Operation could not be affected by extremes of heat and cold. Not only is Harper's Accusplit superbly readable in bright sunlight and indoors, but the large high contrast digits displays perfectly in complete darkness, as well. No other model we've

seen performs well both in sunshine and low light conditions. And Harper's effective temperature range of -40° to $+158^{\circ}$ F is fine for anybody.

2. **Portability.** The Accusplit is small and compact, nestling comfortably in one hand. Weighs 15 oz.
3. **Accuracy, Reliability.** Super-accurate! At least three times more accurate than the best mechanical. Quartz crystal control provides unchangeable frequency and lifetime reliability. No calibration ever needed. If it works it's accurate.
4. **Durability, Repair-free.** The case is virtually unbreakable. The only moving parts are the buttons. All parts should last a lifetime. A trouble-free timer and a beautiful instrument. Backed by a full one year warranty.
5. **Perform a Variety of Functions.** Not only does the Accusplit I have the usual time-out feature for timing games, etc., but it has a conventional split function and a uniquely valuable "Harper Split". This enables the user to obtain individual lap times in quick succession. No more hasty subtract-back calculations and splits that don't add up. Harper engineers estimate the Accusplit combines all the functions furnished in nearly 100 different mechanical stop watch models! No more need for 10-sec., 30-sec., or 60-sec. watches.
6. **Display at Least an Hour.** The six-digit display gives a time up to 99 minutes, 59.99 seconds, and then starts over at zero, allowing split-second timing of marathons and 50-kilo walks, etc.
7. **Good Power Supply.** Four size C, long-lived alkaline batteries power the Accusplit for over 100 hours. They are inexpensive and quickly replaceable.
8. **Reasonable Price.** The Harper Accusplit I lists normally at \$199.00. Track & Field News, however, because of high quantity distribution can offer it at only \$145.00, less than all other digital watches. The best watch is the lowest priced.

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