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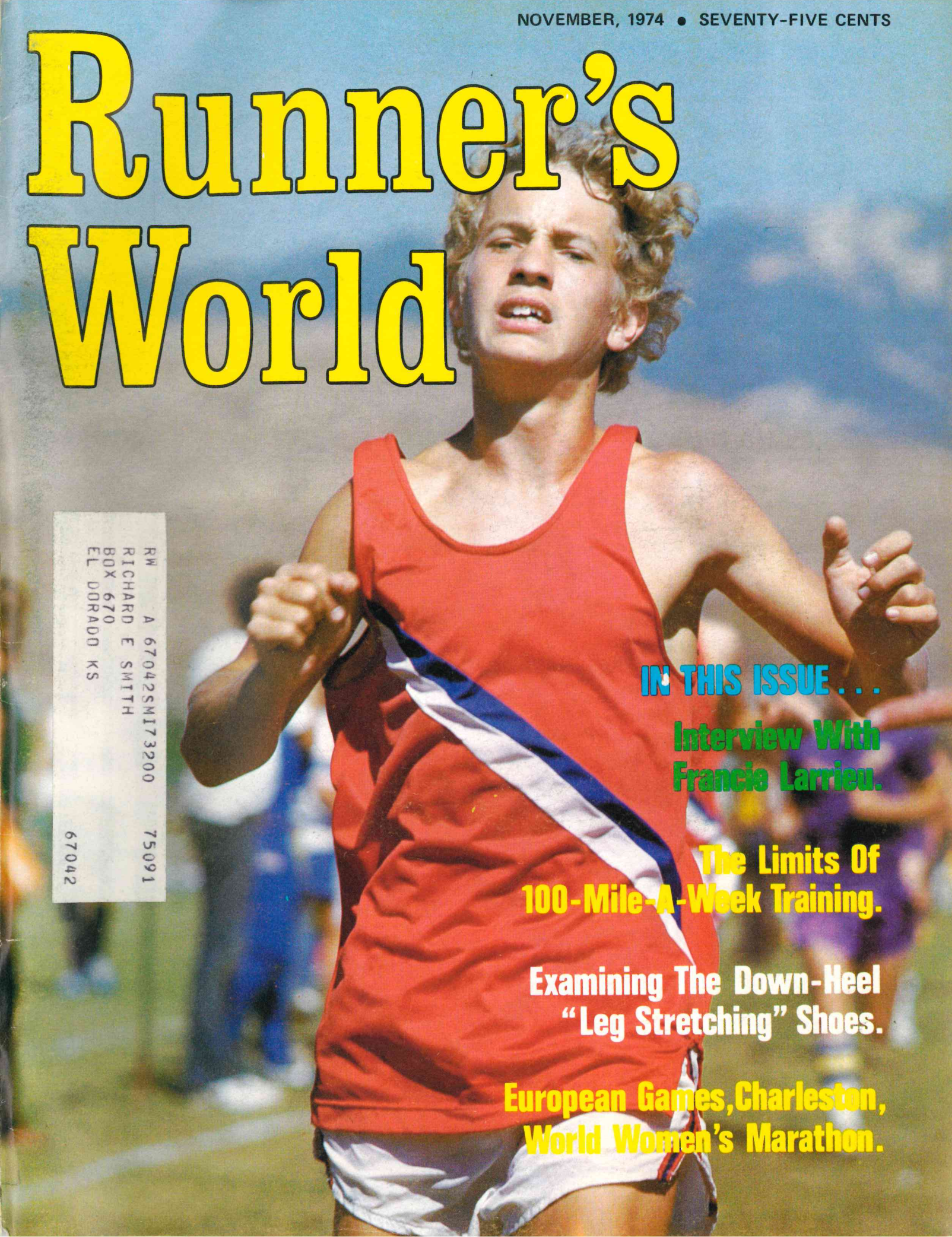

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Interview With Francie Larrieu.

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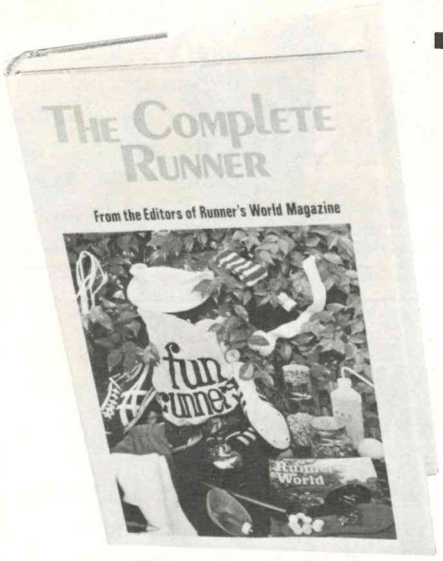

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COVER: Burt Davis' photo captures the combination of pain and joy on the face of a young runner at the end of a cross-country race. The athlete is Paul Cramsen, a California high schooler.

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FROM THE PUBLISHER

It wasn't the post office that delayed the magazine this time. Our computer company had problems producing address labels for our October issue and thus we were late in mailing it. We are on top of the problem now and we'll be back on schedule with this issue.

Continuing our discussion from last issue on producing a magazine: Joe Henderson writes headlines for the articles and has them set on the typositor. He then assembles all the material for the issue. George Beinhorn has selected the photos and artwork that will be used with each article. And Diane Teshima has made up a list of all the advertisers for the issue.

I double check and see if everything is in order, then make up a plan on what will go where. I proceed in laying out the major features, while Ian Jackson lays out the regular columns and Jan Herhold does layout for the ads. During layout, we decide what a page is going to look like and do the paste-up. Combining these procedures saves time and offers more flexibility in laying out a good-looking page.

The laid out pages are given to Joe again for proofing. Hugh Bowen also rereads them. Any errors are corrected. Finally, Joe writes the captions for the photos.

Once these are done and pasted down, I take a final look through all the pages. Our printer picks it up and prepares it for offset printing, which means that negatives are made directly from our lay-outs. The only other chance we have to make changes is when we get a "blue-line" back from the printer. This is a copy made right off the negatives. After final corrections are made the presses are ready to go. That is how a magazine is produced.

Bob Anderson

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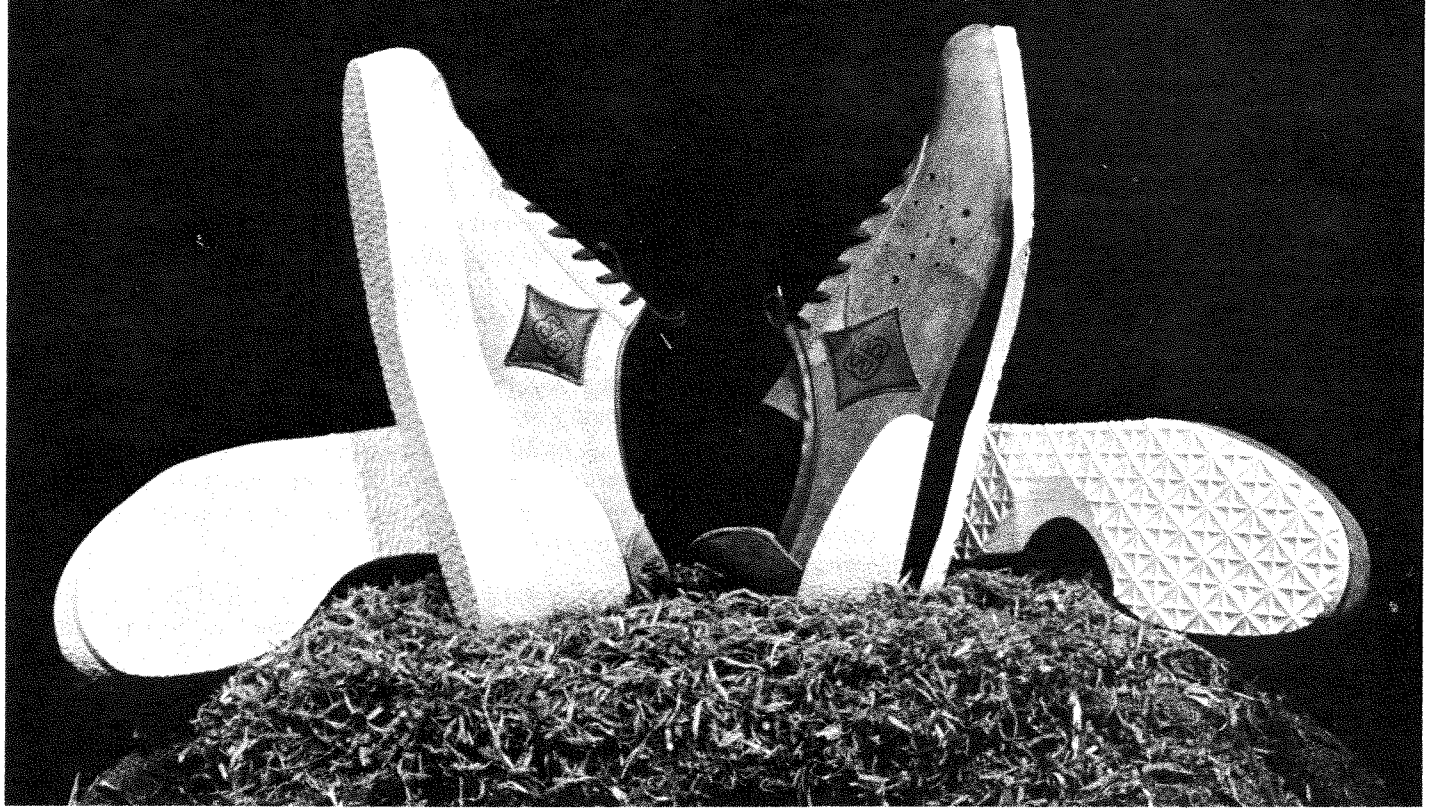

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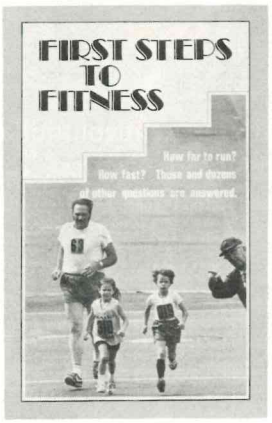

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"Impossible. I was soaked in perspiration and felt tired. I was worried. If I was like this now, how would I be when I was 40?"

At 40, Foster was an Olympic marathoner and a world record holder at 20 miles. At 41, he ran 2:11 for the marathon—a time not a dozen men have ever bettered.

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THE VALUE OF AN EASY SEASON

Imagine you're a gardener. I use this example here because a runner with that job is going to make a point later on. When you're gardening, you know you can't plant, grow and harvest continuously from the same soil. Somewhere in the cycle, the land needs a break. It has to lie fallow for awhile, or at least take on a new and different crop, to renew itself.

As an old farmer, I should know this fact of nature. As an old runner, I should know that it applies to this field, too. But I've been brought up in this sport to think of "layoff" as a dirty word and "vacation" as a euphemism for laziness. I'd always thought a runner could stack success on top of success—like so many bales of hay—as long as he kept working, and that the surest way to fail was to stop stacking.

I wrote it off a coincidence that every six months or so, I come down with some sort of injury or illness. Nothing really major most of the time, but enough to slow me down for a couple of weeks. What I didn't realize until lately was that these ailments were following a consistent and predictable pattern. I wouldn't let myself lie fallow, so this was the body's way to taking the rest it needed.

"Oh, my God," I'd say after two day's off. "I'm losing everything." But two weeks later, I'd always be back, fitter and more eager from the time off.

Maybe because he's a gardener, Emiel Puttemans understands these things better than most of us. The Belgian who has held a half-dozen world records talked with *RW* reporter Tom Sturak two years ago ("Puttemans Has a Plan," July 72). Sturak reported:

"Puttemans believes that continuous year-round training of *any* variety is detrimental to performance—in both short- and long-range terms. Twice a year, he takes planned rest periods of 10-14 days. During these layoffs, he runs 'not one step' and eats all he can.

"The importance he assigns to these scheduled rests is evidenced by the fact that he cites *them*—and not his training—as the reason he thinks he can continue to compete in world-class competition and improve until he is 30."

Puttemans intentionally lays off for a month of each year, and intentionally gains several pounds. Dave Bedford, like most other runners, doesn't plan vacations but gets them anyway because of injuries. He had one last spring and gained 11 pounds. Yet on six weeks' training, he won the British national 10,000-meter championship.

A year earlier, Bedford had said in a *RW* interview (Sept. 73), "I had this hamstring trouble for 10 weeks this spring, and it was getting bad. Towards the last couple of weeks, I was getting a bit frightened about it and thinking it was best to pack it in. Fortunately, it turned for the better at the right time and I got my enthusiasm back."

Bedford came off that spring break to set a world record for the 10,000 meters in July. The same thing happened to his countryman Brendan Foster this season. Foster was laid up with an injury in May and June ("which cost him a significant amount of training time," according to published reports). In August, he broke Puttemans' world record for 3000 meters. In September, Foster won the European 5000.

See the pattern: hard training, a layoff (usually forced), another month or two of training, then the best race ever.

It has happened in marathoning, too. Derek Clayton needed a knee operation in the winter of 1968-69. In May 1969, he ran a world marathon best which still stands.

Frank Shorter stress-fractured his leg in May 1973. He was away from training and racing for much of the summer and fall. Yet he won the Fukuoka, Japan, marathon in December with his second-best time.

I could go on and on with examples, but it's time to come to the point. The point, says Bill Bowerman, is, "The body must rest." Bowerman, the ex-University of Oregon coach, has written a new book called *Coaching Track and Field* (published by Houghton Mifflin). In it, he outlines his "hard-easy" method:

"Rest is always necessary for the body to recover and replenish itself. Furthermore, the light days will allow more work in the training sessions on the hard days, giving greater progress in the long run. The (hard-easy) cycle is basic..."

Bowerman tells of an experiment he ran several years back with Oregon runners "to see how long they could hold up under conditions of heavy training with no recovery days."

Most of the runners, some of them sub-4:00 milers, lasted less than a week. "Only one runner lasted two weeks: Bill Dellinger, then a 25-year-old graduate student and veteran of two Olympics. At the end of three weeks, even he could no longer take the unrelieved hard days."

Dellinger (now head coach at Oregon) not only proved the worth of Bowerman's principle of hard-easy *days*, but showed it probably extends to seasons and years.

Dellinger all but disappeared from high-level track in the years before the 1968 Olympics. He trained lightly until the year of the Games, then concentrated his work in that time. He finished third in the 5000 at Tokyo.

All the runners cited here—Puttemans to Dellinger—trained hard. But they didn't train hard *all the time*. They took breaks—days off, seasons off, even whole years off (off implying "easing off" rather than complete rest). Any runner who doesn't take time off is forgetting half of a natural equation.

Tom Osler, author of the mini-classic *The Conditioning of Long Distance Runners*, thinks we naturally fall into six-month performance cycles, each cycle divided into a "high" and a "low" of about three months each, more or less paralleling the seasons of the year.

Osler advises, run to the pace of your cycles. Don't fight them or you'll get hurt. "In brief," he says, "easier, slower, longer training runs are best during the low phase. Harder, shorter, faster runs can be tolerated during the peak phase."

My best running almost always has come in the spring and fall. My ailments have come at the end of winter and the end of summer. I suspect some recycling could be done to maximize the former tendency and minimize the latter. I suspect every runner could benefit from selective laziness. •

NEWS AND VIEWS

Hill Technique

Bob Fitts is a national champion road racer and a Ph.D. in physiology.

Hal Higdon's articles "Secrets of the Hills" and "Advanced Lessons on the Hills" (July and Aug. 74 *RW*) make enjoyable reading. However, I wish to reemphasize the major principle to successful hill running to insure that it does not remain hidden within the article. Higdon's Secret Five, "Train on the hills," is the most important to successful hill racing. Hill training is the foundation upon which all the other principles of successful hill racing must stand.

There is a simple reason for this. When running up a hill, extra muscle fibers are used to perform the extra work. These fibers recruited for hill running are not generally used while running on level terrain. Therefore, if you race on hills without training on hills, you are asking untrained muscle fibers to work. Such muscle fibers will fatigue rapidly, and your performance will fall off.

By training on hills, you will have accomplished the most important criterion for successful hill racing. However, two other principles are worth mentioning. Know the course (Higdon's Secret Four) and use proper technique.

I agree with Higdon's advice of leaning into the hill, but I question the value of "stretching out your stride." Your center of gravity tends to stay behind your driving leg if you lengthen your stride going uphill. Therefore, you get a great deal of force going back and up. By keeping a normal stride or shortening it slightly, your center of gravity is maintained over or slightly in front of the driving leg. Consequently, your force is directed up and forward, which is the direction you wish to go.

In going down a hill, your stride should lengthen to prevent your center of gravity from getting too far forward of your drive leg. By lengthening your stride on the downhill, you maintain your balance and take maximal advantage of the down slope in aiding your forward acceleration.

In order to decide on a tactic for a particular course, you must know the course—particularly the location of the hills. If a course contains a number of hills in succession after the first one-third of the race, then it's ideal for a tactic I have used successfully to break away from a group of runners. The tactic is to run hard up the hill, and then continue a hard effort on the down slope (you will find yourself accelerating with little effort on the down slope). Many runners, especially if they are not hill-trained, tend to ease up going downhill in order to recover from the hill and be ready for the next one.

It's desirable to employ this tactic over a series of hills. The untrained hill runner may be able to stay with you for one or two hills, but will be unable to recover completely and after three or four hills will fall back. This tactic has worked for me many times over hilly courses, and had failed me only once. The tactic failed because I failed to train on hills, and hence there was no foundation upon which the tactic could work. Without hill training, you become too tired after a few hills to run hard downhill. Your only choice is to ease up in order to recover for the next hill.

In summary, train on hills and almost any tactic will work. Without hill training, all tactics are doomed to failure.

—From Bob Fitts

High Altitude

Dr. Jack Daniels, an exercise physiologist at the University of Texas, did extensive research with the US Olympic team and the pre-1968 Games high altitude training camps.

Having been involved in numerous altitude studies, I was naturally interested in the article by Jeff Lough ("Experiments with Altitude," Sept. 72, *RW*). I have the following comments:

1. I've seen no evidence of a need to take it easy at first at *moderate* altitude. In fact, it seems that the sooner an athlete tries something for time, the sooner the effects are fully appreciated. I'm talking about the 7000-foot altitude or thereabouts.

2. Different people definitely react differently to running at altitude. Some really enjoy it. Some feel they can't train hard enough or that they are getting out of shape (based on the inability to duplicate usual sea-level training sessions). The latter can be a real problem if a runner relies on performing at a certain standard in training.

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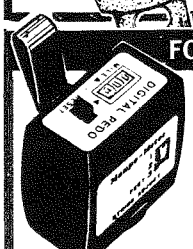

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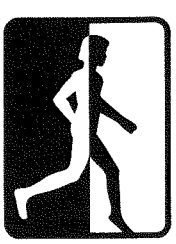

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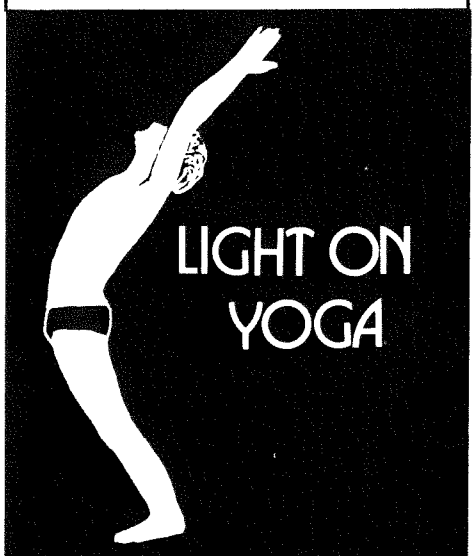

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at sea level. The tendency is to run according to effort, and usually a hard effort just doesn't lead to repeats as fast as usual. The end result over a period of time is a possible degree of *de-training* of running muscles, or at least of the sense of proper pace. For longer distance runners, this isn't much of a problem. For milers, it could be.

3. What is the best altitude to train? It partly depends on your event and type of training needed by each individual. It is certainly not wise to go too high due to limited ability to work, and possible sickness. Naturally, below 3000-4000 feet isn't worth the effort. So this leaves the in-between altitudes as best (5000-10,000 feet). Most people agree on the overall advantages of the 7000-8000 level: hard early work is possible; normal workouts are eventually possible; there are generally more choices of sites with good facilities available, and it's still easy to plan runs from a moderate altitude of higher elevations without much inconvenience.

4. For the same reason that altitude slows training pace, so does it lessen the intensity of mechanical work. Sometimes this is a blessing for an injured runner who is afraid to lessen training intensity. At altitude, he may have no choice. So while he gains greatly from the cardiovascular respiratory standpoints, he also puts less strain on many injuries due to the slower training pace. Not a bad way to recover from injury.

5. If resources allow, it's probably better to make intermittent trips to sea level during prolonged altitude training. This provides for occasional periods of psychological boost through sea-level racing successes, as well as opportunity to reassure the mind that usual sea-level workouts are still possible, if not easier than before.

6. Altitude training seem to be most beneficial for runners not in top shape, but who have great potential. In other words, altitude acts to bring out the best in a runner.

7. After all else fails to seem worth the effort, consider the relaxation and pleasure of being at altitude, with dry air (great cooling for long runs), less pollution (noise, air, water), invigorating conditions all around, and friendly people. Having altitude-type conditions at sea-level pressure might be the real answer.

—From Jack Daniels

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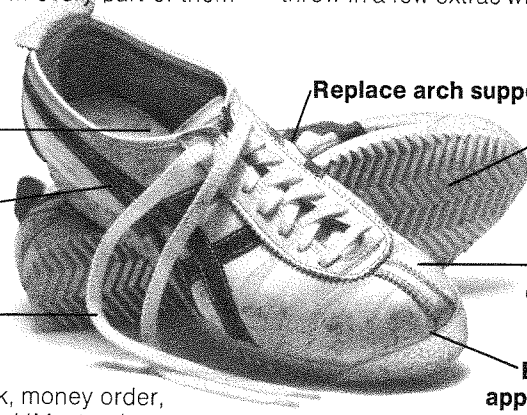

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Seventy-five persons were arrested by local police at a road runners' meet in Washington, D.C., last month. The melee broke out when a runner jabbed another competitor in the ribs and yelled, "Get off the track, you (expletive deleted) jogger."

The alleged jogger kicked the runner in the pants, and the race suddenly deteriorated into a brawl.

Trouble had been anticipated as pickets from the newly-formed Equal Rights for Joggers Committee (ERJC) exchanged angry words with pickets from the Running Purists Association (RPA). Each group has been denouncing the other in recent months. The ERJC claims they are being discriminated against, and the RPA says the ERJC is hurting the image of the sport.

RPA president Ray Wilson issued the following statement: "We will not let a bunch of overweight joggers clutter our races. After years of tolerating these ill-equipped, untalented clowns, it's time we took and stand and defended the purity of our sport. We support segregation of joggers and runners. To maintain separation, we propose the following standards in order to be classified as a runner:

1. Runners must train a minimum of 40 miles per week.
2. Runners must periodically race—hard and fast. Racing in a casual manner is not sufficient.
3. Runners must always run in brand-name shoes. Tennis shoes, basketball shoes, et al., are not allowed.
4. Runners must prove their loyalty by speaking to joggers in a condescending tone.
5. Running clubs must have strict time requirements for members.
6. Runners must display ambition and seriousness at all times.
7. Runners must do occasional speed work or intervals. Training programs of LSD only are not sufficient.
8. Runners must race in official looking outfits. No plain white T-shirts or cutoffs.
9. Runners must never participate in fun-runs.
10. Runners must not be little kids, old men or women.

Bob Sanders, chairman of the Equal Rights for Joggers Committee, stated he would file suit in Federal Court to end discrimination against joggers. "A court-ordered ban on discriminatory activity would be a major step forward in the continuing battle to maintain and preserve civil rights for all citizens," Sanders claimed.

Leaflets distributed before the race by an unknown person were denounced as "reactionary" by both the ERJC and the RPA. The leaflet called for a return to the old system of open races, where the only requirement to run was desire plus the entry fee.

—From Ron Somers

Marathoning, 1975

The editors of *RW* are now compiling the sixth edition of *Marathon Handbook*. This time, it will be issued the first of February, a month later than usual, to assure that all late results from 1974 are included.

The 116-page booklet will include schedules for March 1975 through March 1976. Information on January and February races will appear in the *RW* Coming Events section.

Please send details of upcoming marathons to *Marathon Handbook*, Box 366, Mountain View, Calif. 94040.

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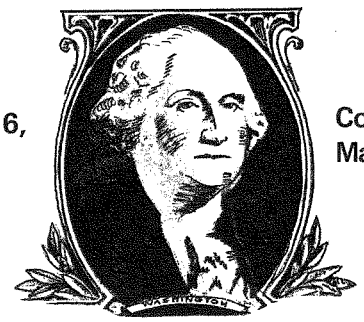

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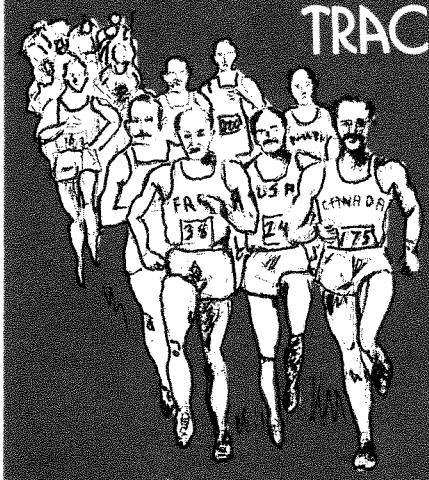

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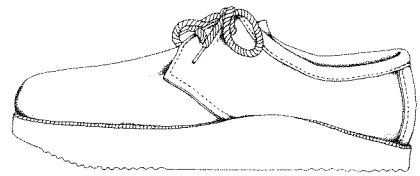

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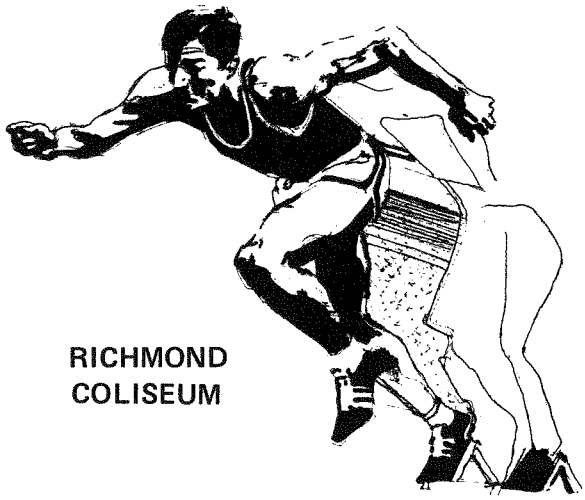

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FRANCIE LARRIEU

Francie Larrieu made her first US national team five years ago when she was 16, and she's been getting faster and better known ever since. She now stands unchallenged as the best female distance runner in the US—ever. Last winter she burned up the indoor circuit, setting four world records. The highlight of her season occured on Feb. 17 in San Diego where she broke two world records in one race, running 9:02.4 for 3000 meters and 9:39.4 for two miles. The old marks had been 9:36 and 10:12.

As an indication of Francie's stature and reputation as a runner, the select and previously all-male Pacific Coast Club welcomed her into its ranks last winter with open arms (pardon the expression). The club boasts such track and field superstars as Dwight Stones, Al Feuerbach, George Woods, Jim Bolding and John Powell.

For Francie, who had previously been a member of the San Jose Cindergals, becoming a member of the Pacific Coast Club was something akin to making the majors—at least in the eyes of one of her ex-teammates on the Cindergals. When asked if there was any resentment among the Cindergals over Francie switching clubs, the ex-teammate said, "No, I don't think so. We're all just very happy for her. She deserves this chance. Francie's a star." And so she is.

This interview was taped Sept. 24, only a few days after Francie had returned to Los Angeles, where she's a student at UCLA, from a summer-long tour of Europe.

RW: You passed up this year's US-USSR meet in Durham, N.C. to compete in a series of meets in Europe with the Pacific Coast Club. Could you summarize your European tour for us? You ran a great number of races in Europe, I understand, but, of course, only a few of those races were reported in the press here.

Larrieu: I ran 23 races in about 13 weeks and I ran—let me see—10 1500s, 10 800s, two 3000s, and one 1000. I won all the 1500s, except the last two, and both 3000s, and I was about half and half in the shorter races. My best in the 1500 was 4:10.3 which I did twice, once in Milan, Italy, on July 2 and once in Athens, Greece, on July 10.

Actually, 23 races is many too many. I'll never do that again. I think the secret is fewer and faster.

RW: Did you get a chance to go up against any of the big stars, or superstars, of European women's distance running during the tour?

Larrieu: Not really. I ran against Italy's Paola Cacchi who, of course, is very good. I mean, she got a bronze medal in the Munich 1500. But she wasn't that fit this year. And when I ran 4:10.3 and she ran 4:16, she wouldn't race me the rest of the summer after that. Every time I raced she wouldn't race.

Actually, my best competition all summer was Thelma Wright of Canada. When I ran 4:10.3 in Greece, she ran 4:10.5. And we had a good 3000 race in Viareggio, Italy on Aug. 7 where I ran 9:03.2 and she ran 9:03.4.

During that race, we were both trying to go under nine minutes. We talked about it and took turns leading, but we just fell off the pace.

RW: Still, those times place the two of you, what, third and fourth on the world all-time list?

Larrieu: Uh, no, I don't think it's that high, because the European Championships winning time was 8:55 and the first three were all under nine. So I'm not exactly sure where those times place us—probably down around fifth and sixth, or sixth and seventh. But wherever it is I'm not concerned, because I'm convinced I can run a lot faster than that.

RW: How fast do you think you can run the 3000—say, maybe next year?

Larrieu: I'm certain I'll run under 8:50 next spring.

RW: Under 8:50!

Larrieu: Yeah. The world record is 8:52 by Bragina and I'm certain I can run under 8:50. It's just a matter of getting in the right meet at the right time.

RW: Are you perhaps thinking of specializing in or gravitating towards the 3000 in the future—maybe next year?

Larrieu: No, not really. I think I'd like to run the record in the 3000 before everybody else does it, because if they put the 3000 meters in the Olympics, the same thing is going to happen to the time in it that happened to the 1500 in Munich. They're gonna knock 10 seconds off just like that (snapping her fingers). It's not a frequently run race and the record really isn't that great. I mean, shoot, I haven't run that fast yet. I know it's within reach to run much faster than that.

RW: You ran 9:02.4 indoors in San Diego, en route to a 9:39 two-mile. An 8:50 3000 meters would put you under 9:30 for two miles. That, as they say, is getting down there. How fast do you think women can run within, say, the next three-four years in the 3000-meters?

Larrieu: 8:40.

RW: 8:40! That converts to something under 9:20 for two miles!

Larrieu: Well, that's about two 4:20 1500s and I don't think that's hard.

RW: You're now clearly established as the number one female distance runner in the US and you've obviously run some superb times. But you still have to prove yourself against the top Europeans. I recall a comment your brother Ron (a '64

US Olympian in the 10,000 meters) made before Munich. You had run some great times in '72, including a 4:10 1500 meters, and someone had asked him about your chances in the Munich 1500. Ron had replied, "Well, if she's lucky she might reach the final." The point he seemed to be making was that it's one thing to run fast times over here but quite another thing to take on the tough, talented and experienced Europeans head-to-head. How do you rate yourself against the best in Europe at this stage? Are you confident you can take them on and beat them?

Larrieu: I feel if I have the opportunity to race against them—say, for instance, Hoffmeister (of East Germany), or the Bulgarians, who are running very well right now, or the girl from Norway, Greta Anderson, all those people...I feel if I have the opportunity, I could run *with* them. And if I'm training properly, I can even beat them.

But actually now I am embarrassed to tell anybody that my (1500) best is 4:10. I am absolutely embarrassed to tell them, because to be considered any good these days you've got to run under 4:10. However, my times are now much more consistent around 4:10 to 4:15 or so. I think I'm ready to go under 4:10 and it's just a matter of getting into the right competition under the right conditions.

But I really think I can compete with these girls now. I really do.

RW: Well, your tour this summer was a great opportunity to find out. Were you disappointed that you didn't get to meet the more prominent European runners?

Larrieu: Yeah, I was definitely disappointed. My first real big disappointment came when I found out that Paola (Cacchi) was not in very good form this year because a lot of my meets were in Italy and I had an opportunity to race her a lot. She and I get along pretty well and, you know, if we want to run a fast time then we could work together to do it.

Another disappointment came in Athens when I found out that we were going to run against the Canadians in one meet there, and Glenda Reiser wasn't in good form. But, as it turned out, Thelma (Wright) was very good competition.

RW: I don't know whether or not you're planning another trip to Europe next year. But I would assume that you, in fact, want to avoid a situation where you run into the best Europeans, Hoffmeister, for instance, for the first time in Montreal?

Larrieu: I would definitely like to avoid that situation.

Actually, I could have run against Hoffmeister this summer had I arranged this one meet in Munich. But it was the end of the summer. By that time I had just about quit training. Besides, it was the day before a meet in London that I had already arranged to go to, so it just didn't work out.

RW: I referred to the Munich Olympics earlier. What did happen to you in Munich in '72, Francie? As I said, you went into that competition with some very fancy credentials, but you never made it past the semifinals.

Larrieu: Well, I don't like to offer any excuses. I was physically ready to run very well there. I was even mentally ready to run very well there—until I got to the semifinal heat. Suddenly...I don't know what happened. I guess I realized who I was running against—these absolutely *great* runners, you know—and the absolute age of them overwhelmed me. At 19, I was running against these women who were 29 or 30. They were the ones that everybody talked about, that everybody *knew* would win and somehow it was almost a psyche job on me.

I got in the race and I really thought I could do it. I was keeping up there and then somehow I ever so slightly lost contact, ever so slightly, and I thought to myself, "Hey, I'm only 19. I've got years and years to run." I don't know what was going through my head there. I just don't know. And suddenly I found myself way back. It was the weirdest experience I'd ever had.

RW: How do you handle in your mind today the knowledge of what happened to you in Munich? And how are you going to prevent the same thing happening to you in Montreal in '76?

Larrieu: Well, first of all, sometimes I get really, really angry with myself for doing that, because obviously I didn't put forth everything I had. But now, I think it's the experience I've accumulated, for one thing, that will help me to avoid that in Montreal—just being around as long as I have. I'm beginning to believe the theory that the *number of years* of competition you've had is more important than age or development. Hoffmeister's been running about 10 years now. Bragina has been running about 10 years. By Montreal, I will have been competing about 10 years.

RW: Competing about 10 years and, I assume, loving almost every minute of it. I recall a conversation we had in Toronto a year ago or so, where you stressed how completely you enjoyed the running, the racing, the travel—that whole life. In fact, you made it no secret that track was everything to you—even to the exclusion perhaps of things such as school, though I know you're a student now at UCLA. Does that still summarize your whole attitude?

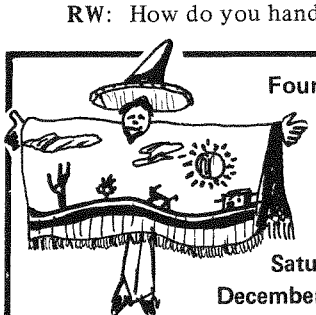
Larrieu: Definitely so. Definitely so. I *love* going around to different places and meeting people, and the competition is so exciting. I had such a really great time this summer and met a lot of people and learned a lot about training and competing. And going to school in Los Angeles—UCLA—well, track is why I'm here. I mean, I always thought it would be neat to go to UCLA, but I never thought I could get here. But I got here because of track. It's everything!

RW: Are we to conclude that education is unimportant to you?

Larrieu: Oh no! Definitely not. But people say, "What do you want to do when you graduate from school?" And I really don't know. I think of all the opportunities there are. I'd like to go, perhaps, into broadcasting, in particular for female athletics. Maybe it sounds like something everybody might want to do. And I'm interested in public relations.

RW: Last fall you led the San Jose Cindergals to the AUU cross-country championships. Shortly after that you left the Cindergals, the club you'd been with almost since you started, and joined the Pacific Coast Club. Why did you switch clubs?

Larrieu: Okay, Tom Jennings of the Pacific Coast Club had talked to me a year before and said, "Why don't you



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join our club?" I wouldn't do it because I said I couldn't leave my coach, I couldn't leave San Jose.

Well, something happened that spring (of '73) and I don't know what it was. I had been brought up training a certain way with the Cindergals and all of a sudden I found myself rebelling against that training. I had been doing very similar things for five years and I found it wasn't fun anymore.

A veteran at 21, Francie Larrieu is now the fastest woman runner in US history. (M. Julius Baum)

Then in the summertime another runner talked me into moving to Florida to train. And I really liked the different style, the long, easy runs, the relaxed atmosphere in Florida. I won the cross-country nationals last year off that kind of training—nothing but long distance running. However, I knew I couldn't do that kind of training and be good on the track.

After the cross-country nationals, I moved back to California and I was still going to be with the Cindergals. I went out to one practice and I realized, "Hey, this isn't going to make it." I heard they were going to give scholarships at UCLA but I'd heard you had to be there in the spring to get one for the next year. I had worked during Christmas, and I had enough money to make it through spring so I decided to move down here, and I joined the Pacific Coast Club.

Actually, I was going to coach myself. I thought I knew enough about coaching to coach myself until I found somebody. But then my brother Ron said he'd help me. But during indoor season he said, "I can't do it"—I assume because he was going to be too involved with other things. And he found me the coach at UCLA which was so convenient for me.

So Hal Harkness is my coach now and I train with the distance runners on the men's track team here at UCLA. It's really great because it's a different type of training. I really like the program.

RW: UCLA has some other fine female runners, do they not? —Julie Brown, for instance (second to Francie in last year's AAU senior cross-country championship race).

Larrieu: Yes, they do. But they train under Chuck Debus who's the women's coach at UCLA. I don't particularly agree with his whole philosophy

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and attitude. I'm just really happy with Hal.

RW: Are you, in fact, on scholarship at UCLA now?

Larrieu: I am supposed to be on full scholarship *but* because I went to Florida State University last fall and took 10 units, they can't put me on scholarship until a year from the day I started at UCLA, which means next spring. It's a silly rule and they're trying to fight it. But they have allotted a scholarship for me so...

RW: What, in brief, is your training now?

Larrieu: Okay, I only train three days a week on the track (this was in the spring, last spring), two days training, one day competition. And the other days I would just go on long runs.

RW: Do you train twice a day?

Larrieu: Twice a day. In the spring I was running about four miles in the morning. This fall I'll run about seven. I have a new course all picked out up in Bel Air. It's great—hills and everything.

But anyway, I'd run about four miles in the morning in the spring and in the afternoon, Tuesdays and Thursdays were track days, Mondays, Wednesdays, and Fridays were long run days. Sometimes on a Friday I'd do some 110s just to sharpen up before a meet—if I had a meet on Saturday. But that was it, whereas before with the Cindergals, almost all of my workouts were intervals. Even cross-country training, except for maybe one or two days a week, were all interval-type things.

RW: We touched earlier on how much you love the competition, the travel and so on, you really have a pretty glamorous situation now, don't you? You're with the Pacific Coast Club, you're training in the plush suburbs of Brentwood and Bel Air, you're going to school at UCLA, you're travelling all over the place. For someone who loves track and the track life as much as you do, you're really a pretty lucky gal, aren't you?

Larrieu: Oh, I'll say. Yeah, it's really nice. I love where I'm living right now. I'm very, very happy. I think sometimes when I was living at home I was frustrated, not because of the fact that I didn't get along with my family, because I get along very well with my family, and they're willing to do anything for me. But because of the fact that when you reach a certain age you're *supposed* to move out and you're *supposed* to go away to school, and I've always wanted to do those things. Now I'm finally doing them and I'm very, very happy here. •

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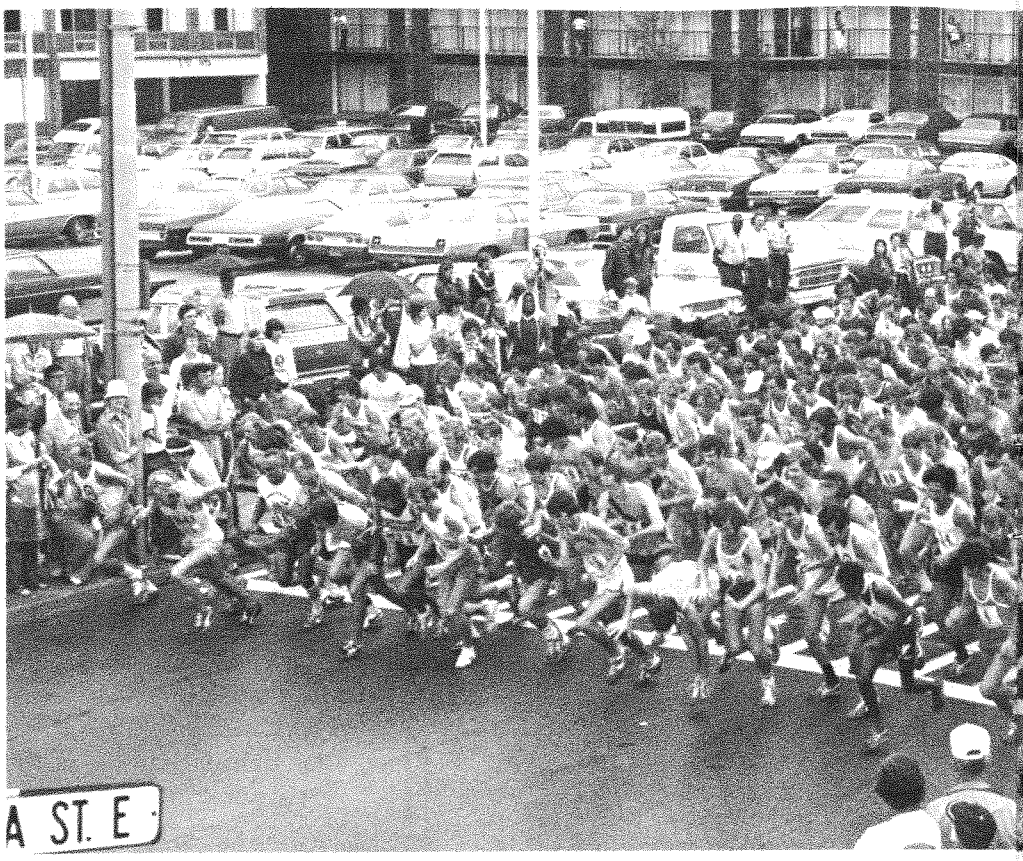
EVERYBODY'S DOING THE CHARLESTON

by Hugh Sweeny

Hugh Sweeny, a New Jersey attorney, finished 37th in the race he describes.



I first heard it said in early July, at the US-USSR meet in Durham, N.C. Even then, the word was out. And throughout the summer, every time the subject came up, the response was always the same.

"Are you going to Charleston?"

"Yes, everybody's going to be there."

It was a simple fact which was obvious to anyone with an ear to the road running grapevine. *Everybody* was going to be at the Charleston, W. Va., 15-mile road race on Saturday, Aug. 31.

Last year, in the inaugural Charleston Distance Run (see Nov. 73 *RW*), meet director Dr. Donald P. Cohen had flown in several of the leading long distance runners in the United States. Jeff Galloway had beaten Lucian Rosa, Neil Cusack, Jon Anderson, Tom Fleming and 216 others as the Charleston race became, in Hal Higdon's words, an "instant classic."

This year, the "classic" became more than just a top-flight road race. It became the unofficial North American road racing championship, including a veritable "who's who" of US and Canadian runners. Frank Shorter, Kenny Moore, Jerome Drayton and Jack Bacheler were absent. Almost everyone else of significance was at the race.

But it wasn't only the stars who came to Charleston. Approximately 1600 runners were entered, and more than 1400 started. The road runners' grapevine was accurate. *Everybody* was at Charleston.

The reason isn't hard to understand. Whereas last year Dr. Cohen had flown in a few class runners, this year he apparently paid transportation expenses for dozens. But the generosity of the budget wasn't limited to catering to the big boys. Every runner who entered was treated like an out-of-town starter in the Wanamaker Mile. Free rooms were provided each runner at the Daniel Boone Hotel or the Holiday Inn for two days before the race. Free meals were offered for the two days. A huge awards banquet for 2100—including several track immortals in Charleston for induction ceremonies into the Track and Field Hall of Fame—followed the race.

And not only the ubiquitous post-race T-shirt but a gym bag and a nylon jacket were given to each contestant. No race this large has ever lavished such luxury on so many lucky runners. Amateur financial analysts among the runners conservatively estimated the budget for the affair at $50,000 worth of goods and services for the weekend.

Thursday night and all day Friday, the runners streamed into Charleston. High school and college teams, older runners, West Virginians in their first road race, and runners whose pictures you had seen in track magazines all descended on the Holiday Inn and the Daniel Boone. The lobbies were turned into a combination waiting rooms, locker rooms, reunion rooms and zoos.

Dr. Cohen, a successful Charleston optometrist turned track fanatic (whose most noteworthy previous claim to athletic immortality had been a bicycle trip from Charleston to Columbus, Ohio), had affairs in amazingly good order for such a titanic undertaking. Organization was the key. There was a committee for everything.

A "volunteer committee" recruited several hundred Charlestonians to help with the race. The volunteers who answered the call were divided into other committees, each of which had a special function. There was an entry committee, a registration committee, a housing committee, a banquet committee, a race course committee, a finish-line committee, a scoring committee, a transportation committee and more. Although the budget for the race was astronomical, there would have been no race at all without the help of these volunteers. Judy Gunn, Jane Hall and Jim Johnson come immediately to mind as being the prime movers.

Just as Boston is the unofficial national marathon championship because of the size and caliber of field it attracts, so I believe is Charleston the unofficial American road racing championship. We have national championships of 15 kilometers through 50 miles. But these runs are admittedly always local in character.

At 15 miles, Charleston is the ideal distance, almost midway between the 10,000 meters and the marathon. A winner over 15 miles would also be superior over the other intermediate road distances. By providing travel money to the leading entrants, Charleston allows the best American runners to square off on the same course on the same day, in a true national championship test. Before Charleston, we never had this. Now we do.

From this crush of 1400 runners (above, M.E. Chambers photo), John Vitale (below left) and Philip Ndoo were first back to the track. Ndoo, a Kenyan, won on the kick-in. (Joe Neil photo)

Saturday morning and the race itself: There were 1450 starters, but a Boston/Bay-to-Breakers type crush scene was avoided at the start by assigning each entrant a unique starting position, in one of the rows marked off on the street. There were a few misplacements, but the job of seeding was done quite accurately and almost everyone cooperated by taking his or her proper place. The greatest road race in terms of depth and quality every contested in North America got underway smoothly.

The early pace was quick, but not exceptionally so—nothing like the breakneck speed at which Tom Fleming and Neil Cusack had started last year. There were too many good runners for anyone to break away.

Eventually, 1973 Boston winner Jon Anderson, three-time AAU marathon runner-up John Vitale, surprising Will Rodgers and eventual winner Philip Ndoo drew away from the field. Last year's winner, Jeff Galloway, was never a factor and retired after four miles with a muscle pull.

Vitale and Ndoo drew away on the flat nine-mile portion which follows four miles of hills. Vitale took the lead on the final 440 of the track, but Ndoo outran him in the last 220 to win by about 10 yards in 1:18:03.

Ndoo (pronounced "Doe") is a 28-year-old Kenyan from Bill Silverberg's international running school, Eastern New Mexico University. Off the track, Ndoo is a sports writer. At the post-race awards banquet, he overshadowed even Jesse Owens' "inspirational speech" with an entertaining description of his pre-race preparations.

Three weeks before Charleston, Ndoo had been doing only eight miles per day. Upon learning that he'd been given travel expenses to Charleston, he stepped up his training to 12 miles a day. But he missed most of the week prior to the race because of the weather. He doesn't like to run in the rain. Fleming and Galloway shook their heads in amazed disbelief as they heard Ndoo tell of his training habits.

Vitale, a 2:16 marathoner, is well known to recent readers of *RW* ("The Lap That Wasn't There," Aug. 74 *RW*). He seemed quite tense before the race. Several runners went to a restaurant on Friday night. John hardly said a word, and, after a brief wait to be served, got up and walked out without any explanation.

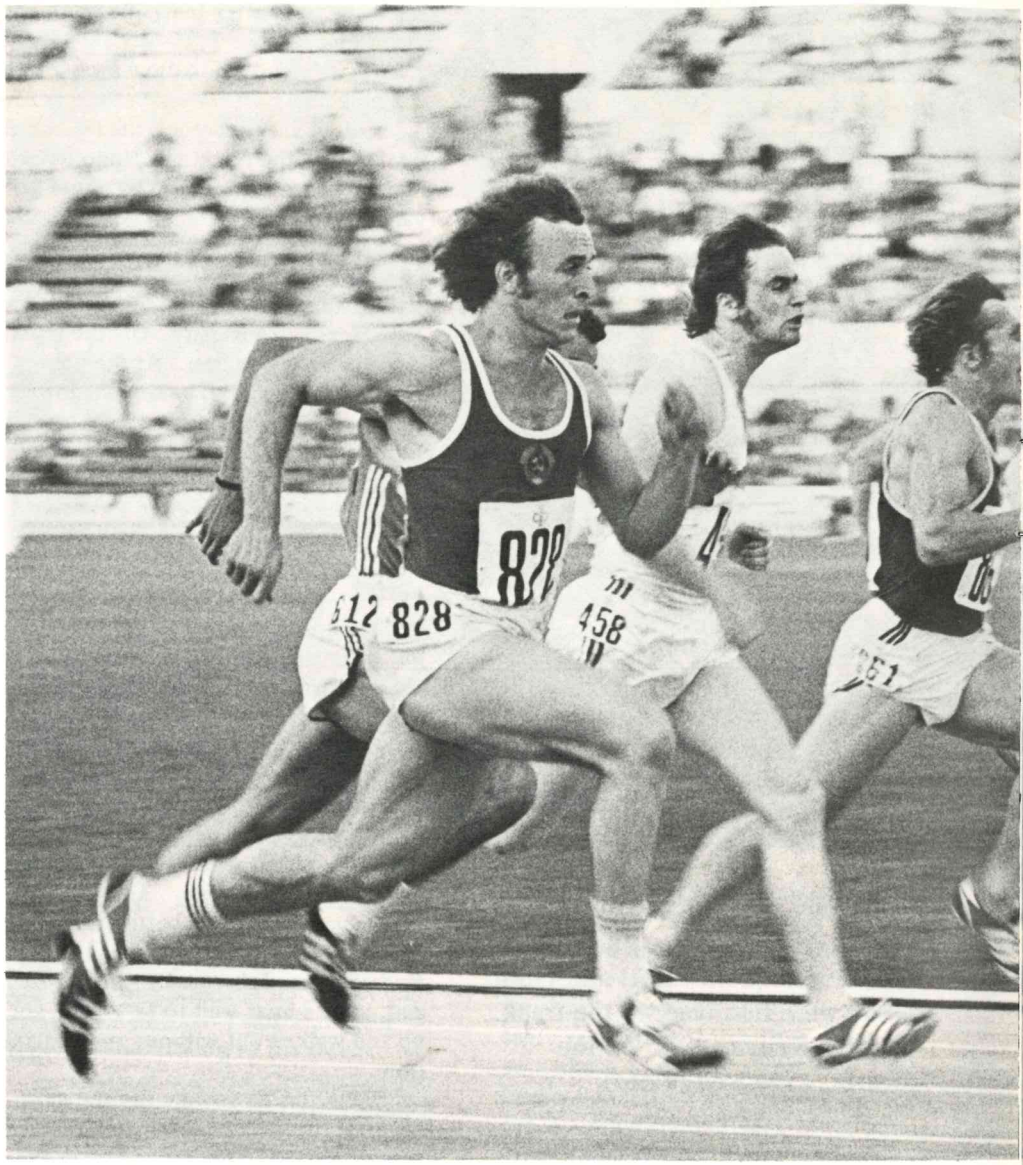
But during an easy run the morning after the race, he was like a different person, loose and joking, telling us the grisly details of his job as a custodian at a mental institution. He explained his quick departure the night before by recalling how his concentration and confidence had been weakened prior to the 1972 Olympic Trials by listening to other runners brag about their unreal workouts. Rather than chance that the night before the Charleston race, he'd left to seek solitude, and the result was quite effective.

In all, Dr. Don Cohen's field included 11 of the first 18 at Boston, including eight of the first 11 Americans. There were nine Americans who had broken 2:20 for the marathon this year alone.

In the women's division, 18-year-old Katy Schilly of Syracuse, N.Y., was even with 1973 Boston and Charleston winner Jacki Hansen after nine miles before pulling ahead to win in 1:38:23. Hansen ran 1:40:50. About 40 women started the race.

The excitement of the race and the hospitality of the promoters were such that next year there might be king-sized problems. Along with the 1600 entries which were accepted this year, another 500 or so were refused because there wasn't room for all these runners. Next year, the entry deluge promises to be larger. Size will be a serious problem if Dr. Cohen continues to be as generous as he was this year. But he doesn't seem to mind. Already, he is planning to make the 1975 Charleston Classic the biggest and best in history. And already the word is out.

"Everybody's going to be there." ●



EUROPE'S "LITTLE OLYMPICS"

by Lynne Pellegrini

The brochure in the press center inviting journalists to follow the European Championships marathon by bus promised a veritable sightseeing tour. The course reportedly wound through the cobblestone streets of Rome, past the Colosseum, across the Tiber River, and along the ancient Appian Way. But when it was all over, winner Ian Thompson of England remembered best the heat, and the beginning and end of the run.

Upon leaving the stadium, the runners met with a small crisis when a dog broke through the spectator lines and attacked one of Thompson's teammates. As strides were broken in an effort to avoid the scuffle, Thompson suddenly found himself in the lead. "I was surprised," he said later, "but then I thought, well I'm here and I might as well stay here."

So he did. He led the field of 31 runners at a fast pace, and near the halfway point his main challenger, defending champion Karel Lismont of Belgium, dropped out, leaving Thompson 100 meters ahead of the number two man, Eckhard Lesse of East Germany. Thompson finished with a lead of 400 meters and a time of 2:13:18, while Lesse and 37-year-old Gaston Roelants of Belgium came in second and third at 2:14:57 and 2:16:30.

"The most frightening moment of my life came just before I entered the stadium," recalled Thompson. "Out in the street, there was so much noise and traffic, and then I entered the tunnel leading to the stadium and suddenly I was all alone. But I knew there were 20,000 to 30,000 people waiting for me at the end of that tunnel."

And waiting they were, for the 5'6" Thompson, who has now established himself as a new rags-to-riches entry in the history of track and field champs. A 24-year-old student, he was a "club runner without distinction," as he puts it, when he attempted his first marathon in October 1973. He won that run and the following two, including the Commonwealth Games in New Zealand in January.

"I am going to take a year's rest from marathon running," said Thompson. "The only person in the world who can challenge me now is Frank Shorter. But I'd like to concentrate on the 10,000 meters for awhile and run my next marathon in December 1975 in Japan."

A second Englishman, Brendan Foster, also stole the show in Rome, winning the 5000 meters in a time of 13:17.2, a new Championships record. Foster led from the gun, and it looked like a two-man race when Finnish Olympic champion Lasse Viren joined him in leaving the pack behind.

With a stride that can only be described as plodding, Foster picked up the pace at 3000 meters, pulling out 30 meters ahead of Viren. The crowd roared, anticipating a world record. Foster finished the race seven seconds ahead of 10,000-meter champion Manfred Kuschmann of East Germany and 4.2 seconds behind Emiel Puttemans' world record. Viren had to fight hard to hold onto third place in the homestretch.

"I wasn't after a world record," Foster said later. "It was too hot (80 degrees) and I didn't really think about times. Winning was the object. My coach

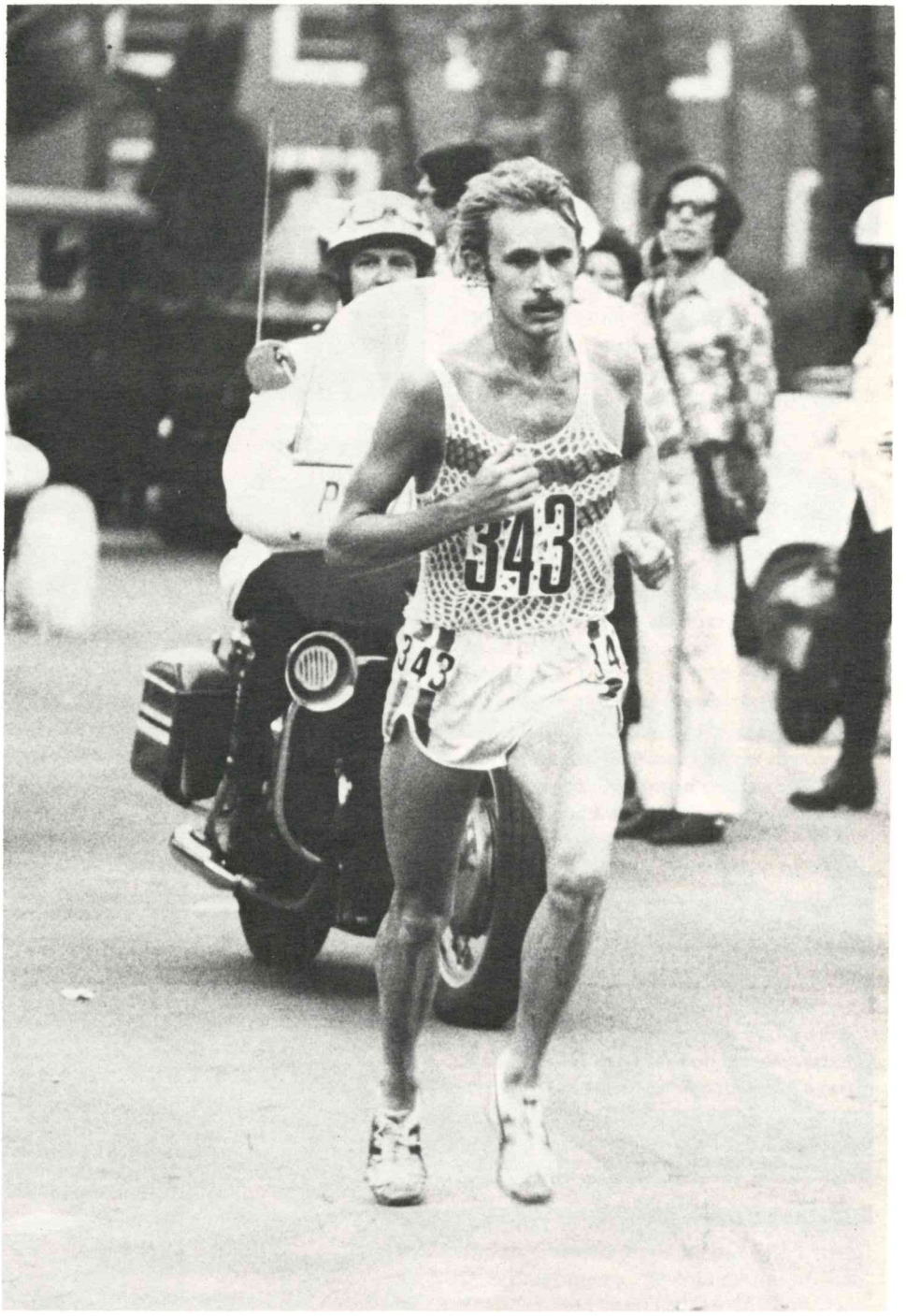
decided that I should lead because of all the pushing and shoving that had gone on in the heats. A group of the blokes were supposed to wave towels and bedsheets when I was in the clear. When I looked up and saw the signal with 2000 meters to go, I relaxed into my own pace."

Not every race in Rome was so clear-cut as the marathon and 5000, where Thompson and Foster were the forerunners from start to finish. In the women's 3000 meters and the men's 800 and 1500 meters and the 3000-meter steeplechase, it was anybody's guess right up to the end as to who would win.

The women's 3000-meter run made its debut in this year's European Championships competition. The 3000 will not be run in the 1976 Olympics, but is now an officially sanctioned event in international competition.

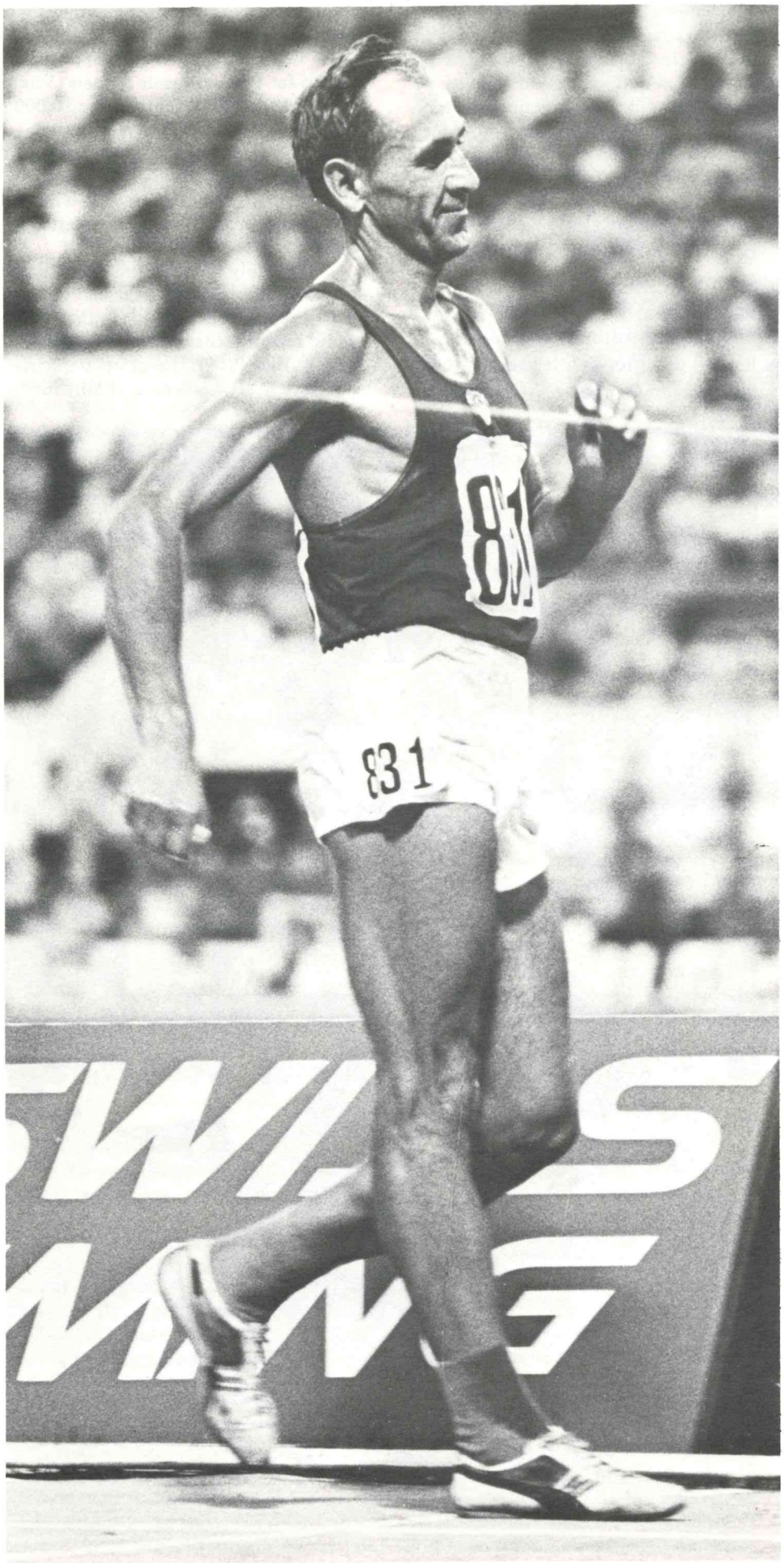
World record holder Lyudmila Bragina of the USSR (8:52.8) and Nina Holmen of Finland (second in the international cross-country race this year) were the favorites in Rome. Bragina stayed back in the pack and Holmen favored the third position until the last 400 meters. In the final lap both came up strong, Holmen winning with a new lifetime best of 8:55.2. Bragina was second with 8:56.2 and 37-year-old Joyce Smith of England came in third at 8:57.4.

Valeriy Borzov (left, 828) had been off-form. Ian Thompson (below) was called "inexperienced." But the sprinter and the marathoner both silenced doubters with their victories at Rome. (Shearman)



While it was a rather disappointing Games for Finland's male runners (Viren third in the 5000, seventh in the 10,000; Olympic champion Pekka Vasala sixth in the 1500), the women have never been better. In addition to Holmen's victory in the 3000, Riitta Salin won the 400 meters in 50.14—second fastest in history.

Probably the most dramatic finishes of the Championships came in the men's 800- and 1500-meter runs. In the 800 world record holder Marcello Fiasconnaro of Italy (1:43.7) shot off the starting line and set a fast pace of 50.1 for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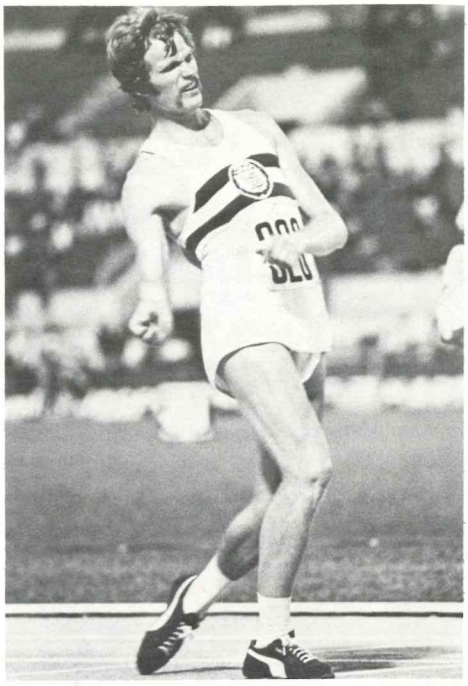

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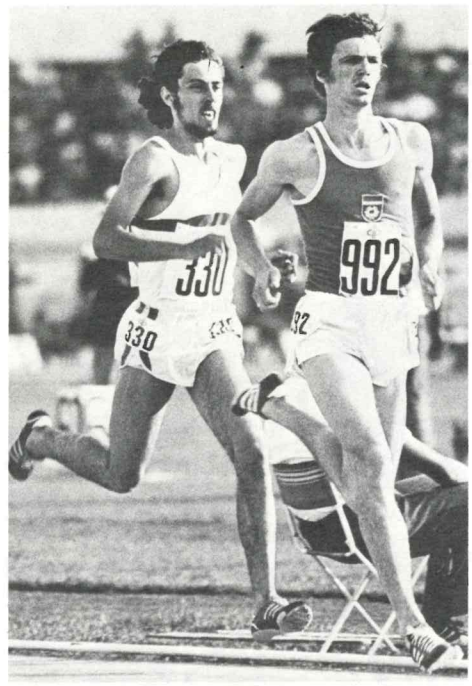
LEFT: Walker Vladimir Golubnichiy, a champion at the Rome Olympics and again at a Rome Games 14 years later. Meanwhile, Roger Mills of Britain is near collapse as he finishes fourth in the 20-kilometer walk.

RIGHT: 800-meter gold medalist Luciano Susanj of Yugoslavia leads young Briton Steve Ovett.

BELOW: Lilyana Tomova (right) and Gunhild Hoffmeister traded wins in the 800 and 1500. (Mark Shearman photos)



the first 400 meters. At 600 meters, Fiasconaro was still in front, but then Luciano Susanj of Yugoslavia sprinted going into the curve and won with a new Championships record of 1:44.1. Fiasconnaro finished a disappointed sixth.

The men's 1500 was another hair-raiser. Winner Klaus-Peter Justus of East Germany (3:40.6) ran in seventh position until he came off the final turn. There he began his "Dave Wottle kick" and surprised Tom Hansen of Denmark by barely nipping him at the tape.

In the 3000-meter steeplechase, European record holder Anders Garderud of Sweden was the man to watch. Italian Franco Fava led for the first 2000 meters and the Italian fans were in their prime. But with 1000 meters to go Bronislaw Malinowski of Poland, Garderud and Michael Karst of Germany passed by Fava and went on to finish 1-2-3. Malinowski's 8:15.0 victory was more than four seconds better than his previous lifetime best, and only a second outside the world record.

Irena Szewinska of Poland made a startling comeback to be the big women's winner of the meet. She had won the 200 at the 1968 Olympics, but had only placed third in the event at Munich, well behind winner Renate Stecher of East Germany. Szewinska beat Stecher by almost two-tenths of a second (22.51 to 22.68) in the 200 here, and by a tenth in the 100 (11.13 to 11.23).

Gunhild Hoffmeister of East Germany, a perennial bridesmaid in major competition, played her familiar role in the 800. She finished second to Bulgaria's Lilyana Tomova. Tomova, who ran 1:58.1, had laid off with an injury most of the spring, and hadn't resumed racing until July.

The two raced again in the 1500. But this time Hoffmeister was in complete control. She won by more than three seconds with 4:02.3—the second fastest ever.

The expected dominance of the walks by Bernd Kannenberg of West Germany didn't materialize. The 20-kilometer was painfully close for a race this long. Eight seconds separated Kannenberg from the winner—none other than Vladimir Golubnichiy, 38, of the Soviet Union, who'd won the Olympics here in Rome 14 years earlier and again at Mexico City.

Kannenberg slipped to ninth in the 50-kilometer walk. In this one, the winner was East German Christoph Hohne, a 1968 Olympic gold medalist. Hohne immediately announced his plans to retire, naming the elimination of the 50 from the Olympics as his reason. •

INTERNATIONAL FIRST FOR WOMEN

by Joan Ullyot, M.D.

It was a banner day for the small West German town of Waldniel (population about 4000). Huge flags of the seven nations represented in the First International Women's Marathon fluttered in the cold September wind. Around the starting line and nearby Sporthalle, crowds like those in Hopkinton milled about, and four different TV stations jockeyed for position with their mikes and cables, tripping up participants and spectators indiscriminately. Hordes of small children dashed around soliciting autographs. Obviously, there was some sort of local competition to see which schoolchild could collect the most signatures in an hour (maximum number being 45, the number of women starting).

Somewhat dazed by all the commotion, the members of the "American Expedition" of nine women stretched or jogged gently along the sidelines, waiting for the noon start. Six of us wore the blue USA uniform, having been designated as the national team on the basis of the National AAU championship in February. Judy Ikenberry, Marilyn Paul, Peggy Lyman, Nina Kuscsik and Lucy Bunz had placed 1-5 in that race. I had only placed 10th, but was chosen as "sixth wheel" since I could also function as interpreter, team physician, manager, chaperone, AAU rep and whatever else was necessary.

Jacki Hansen—the 1973 winner of Boston and potentially the fastest American of all—was also running, as were Masters representatives Ruth Anderson and Catherine Smith. The large US contingent got a tremendous amount of publicity from the Germans, since this was not only the first world marathon competition for women only, but also an official US-German meet, having the blessings of the AAU and its counterpart, the DLV (Deutsche Leichtathletic Verband).

The real star of this historic occasion, however, was a man—Dr. Ernst van Aaken, the famous German physician and trainer who is best known as the "Father of LSD" and coach of German Olympian Harald Norpoth. Not so well known in America is Dr. van Aaken's long-time promotion of women's distance running. He was instrumental in getting the 800- and 1500-meter distances for women and had last October sponsored the first national women's marathon in the world, run appropriately in his own home town of Waldniel. The first international marathon, on the same course, was one more tribute to his energy and convictions.

Judy Ikenberry and I, the first Americans to arrive in Waldniel, had been welcomed enthusiastically by the remarkable Dr. van Aaken. Initially awed by talking with a "living legend," we quickly became his good friends, admirers and drinking comrades as the doctor held daily open house for us, over *apfelkuchen*, coffee, beer, ardent discussions of physiology, jokes and music (every now and then the doctor would dash into the piano room to serenade us with a little Chopin or an improvised "March for the American Marathoners").

The energetic doctor, apparently not slowed down at all by the recent accident which cost him both legs, quickly charmed

LEFT: Peggy Lyman (out of the picture) is in front on the first kilometer, followed by Americans (l-r) Nina Kuscsik, Marilyn Paul, Judy Ikenberry, Lucy Bunz, Joan Ullyot. (Horst Muller photo)

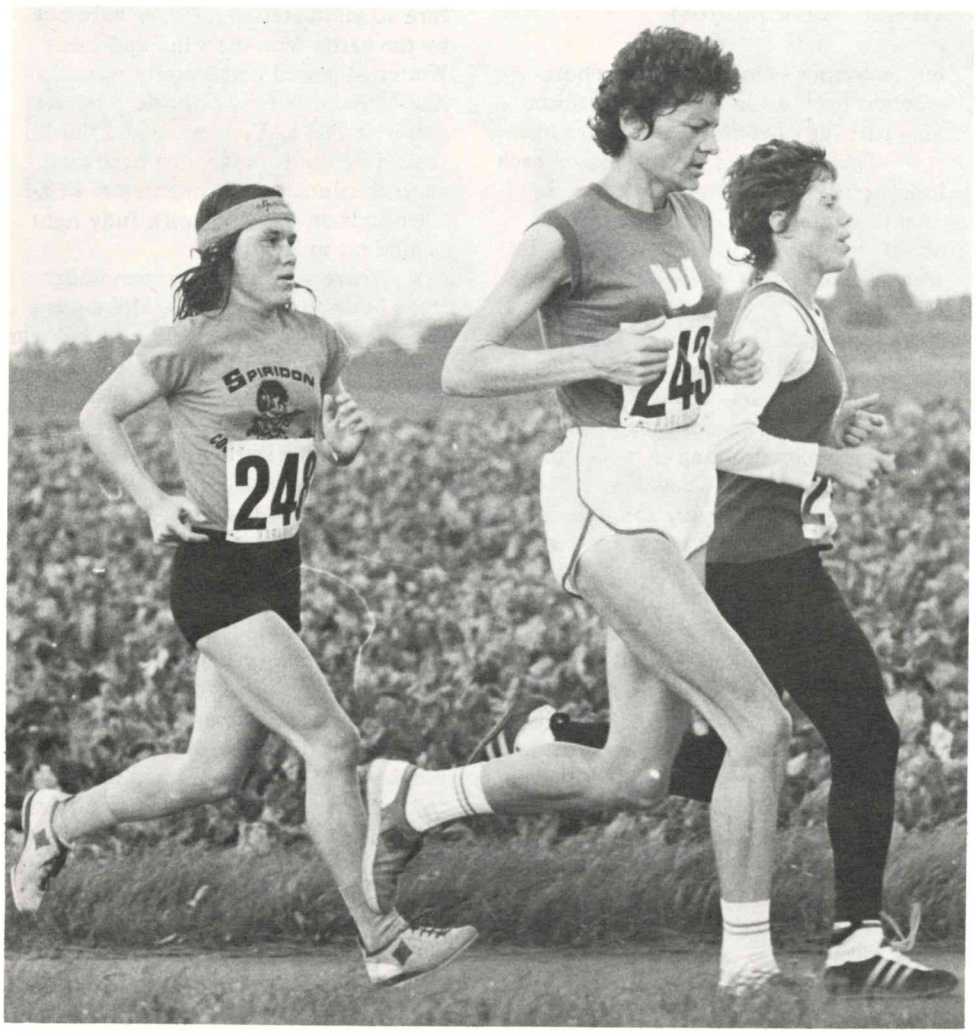
us all with his warmth, his tireless concern for our welfare and his courage. We also were delighted to find he was as nutty as most runners and quickly christened him the "Closet Dingbat."

During the week preceding the marathon, the Americans were all guests of the OSC Waldniel, the small local sports club which has won 14 German championships. During the days, we ate (loading carbohydrates with enthusiasm), slept, visited the doctor and ran with two new German friends, Anni Pede and Jochen Gossenberger. Anni, who held the women's world marathon record from 1967-1970, was just beginning to run again after a six-year layoff. Jochen, the doctor's nephew, is a 100-kilometer specialist. He enlivened our runs with descriptions of his training methods, diet (fasting 24 hours before each ultra-long distance race) and advice on how to manage pit stops on the long runs (in the rain is best because then you don't really have to stop).

Now, waiting for the race to start, I wondered how the American marathoners would adapt to the strange situation. For most, this was the first trip abroad, the first experience of foreign food and language, the first international competition, and not least, the first race run without men. There were problems of overexcitement and resultant overtraining and fatigue, jet lag and the unfamiliar diet, in addition to the ordinary concerns of pace, weather and the 42-kilometer course.

Nina Kuscsik looked fresh at the starting line, but she had been sick the week before and, worse, had arrived in Waldniel from New York just two nights before the race. Peggy Lyman had been traveling around Europe for three weeks already and had gotten a sore throat. Judy Ikenberry, in addition to the psychological stress of being touted as national champion and hence the American "favorite," suffered from a small but nagging infection, indicative of depleted reserves. And Lucy Bunz, wandering around in her long black cloak which had earned her the nickname of "Batman" or "die Fledermaus," looked slightly pale. While the rest of the Americans had feasted on homemade pancakes the night before, Lucy had indulged in her favorite nearly-raw herring, now sitting like a cold lump in her stomach. "I don't think it was quite dead," she said, and smiled wanly.

The leading Europeans (l-r) Chantal Langlace, Liane Winter and Christa Kofferschlager. (Horst Muller photo)



I felt good but so distracted by the commotion, the TV interviews and my constant interpreting and managing duties that I barely remembered to write my planned splits on my arm. I was aiming for a 2:58 time, which worked out to 21 minutes for every five kilometers. I anticipated that there might be as many as 10 women under three hours: seven Americans plus at least three or four of the Germans and the 19-year-old French runner, Chantal Langlace, who was rumored to have run 2:45 in practice and had recently raced 2:46 on a short course. Given the competition, the cool weather and the almost flat course, a new world record was a distinct possibility.

But a strong wind had come up during the morning and was to be against us for half of each 10-kilometer loop. Unfortunately, this was the unsheltered half!

The four Americans who had already broken three hours—Ikenberry, Paul, Lyman, Kuscsik—went out together, an exciting sight, four blue jerseys in a row, moving easily at about a 6:30 pace-mile. A little farther back were the German and French contenders, along with Lucy, Jacki and me. As we headed into the wind and the lead pack moved away from the others, I ran beside German women and Chantal. Christa Kofferschlager, the European champion, remarked that the pace set by the Americans was too fast. Manuela Preuss agreed, saying, "They'll regret it later." Chantal, a small, determined woman, didn't bother with talking, even in French.

The pace seemed reasonable, slightly over 20 minutes for five kilometers, but the German coaches bicycling beside us seemed worried. Manfred Steffny, a German Olympic marathoner and organizer of the race, got irate as Christa and Manuela moved up on Judy's shoulder. "You are going out too fast," he cried. "Don't you dare pass, stay right where you are." Then, doing his best to be impartial because of the international nature of the marathon, he dropped back slightly to me and gave me a rundown of the positions and conditions of my teammates behind.

Liane Winter (243) trails a pack including Joan Ullyot (206) and Jacki Hansen (second from right) early. But she went on to win in European record time of 2:50:31. (Horst Muller photos)

By five kilometers, Liane Winter, the German darkhorse running only her third marathon, obviously chafed under the moderate pace and surged past Judy and Marilyn into the lead. Most of us thought this reflected her inexperience and that she would tire, but it didn't turn out that way. Liane and Judy jockeyed for the lead over the next 15 kilometers, then Judy began to tire in the headwind while Chrsita and Chantal moved up. At about 37 kilometers, Liane took over the lead again from Chantal and held it to the end. She finished in 2:50:31, a new European record. Chantal was close behind in 2:51:45; Christa and Manuela finished third and fourth.

All this I learned after the fact, my experience of the race being limited to my own feelings and whatever I saw ahead of me. Feeling comfortable, I ran along steadily behind the lead pack. Right at the beginning, one disadvantage of the absence of men was clear. There were no large bodies to tuck in behind, to shelter us from that headwind. Furthermore, the small field quickly spread out, so that runners were alone for most of the race. Jacki Hansen, moving easily, was about one minute ahead of me throughout the race. And aside from a brief challenge from two German women between 10 and 20 kilometers, there was no one in sight behind me.

There was plenty of time to enjoy the course, half of it into the wind, but mostly past cheering crowds reminiscent of Boston, the other half on a bike path beside lovely woods, with a view of Waldniel and its church across the fields. We also ran past farms populated by clean but enormous swine. The local photographers loved to shoot views of us running past the sows—for contrast, I hope.

There were two aid stations on each loop, serviced by young local runners who would ask what we wanted, then sprint ahead to get it and run along with us while we drank. These girls had trouble pronouncing "ERG," speaking it more like "ugh." They considered it the American water and had plenty available. (Jacki and Peggy had brought supplies from the US.) We Americans amazed the Germans by drinking so much—on the run, with meals, etc. They seem to believe that chronic dehydration is easier on the system and that we would make ourselves sick.

No one got sick, but fatigue, the wind and perhaps (in Lucy's case) the herring began to take their toll of the Americans, most of whom slowed. Nina Kuscsik, who had paced with Jacki the first 20 kilometers, dropped back toward me and I passed her as we battled the wind. She tucked in behind but couldn't sustain the pace. Personally, I was surprised she could run at all on Sunday. Two days after our arrival in Europe, Judy and I had spent 14 hours in the sack and here was Nina out running. Amazing!

Shortly thereafter, around 27 kilometers, I passed Marilyn Paul. As Marilyn explains it, she felt a bit miffed at being passed by someone on 2:58 pace (having planned to run faster herself) and was provoked into speeding up for awhile. Before long, she tripped ("over my own feet") and fell, spraining a previously weakened ankle. As she hobbled on, feeling lonely, with the woods beside her and no one in sight front or rear, the overzealous German Red Cross in search of a victim drove by and abducted Marilyn into their ambulance over her loud protests of "Nein! Nein!" Viewing Marilyn's pronounced limp after the race, however, I had to agree with the Red Cross kidnappers.

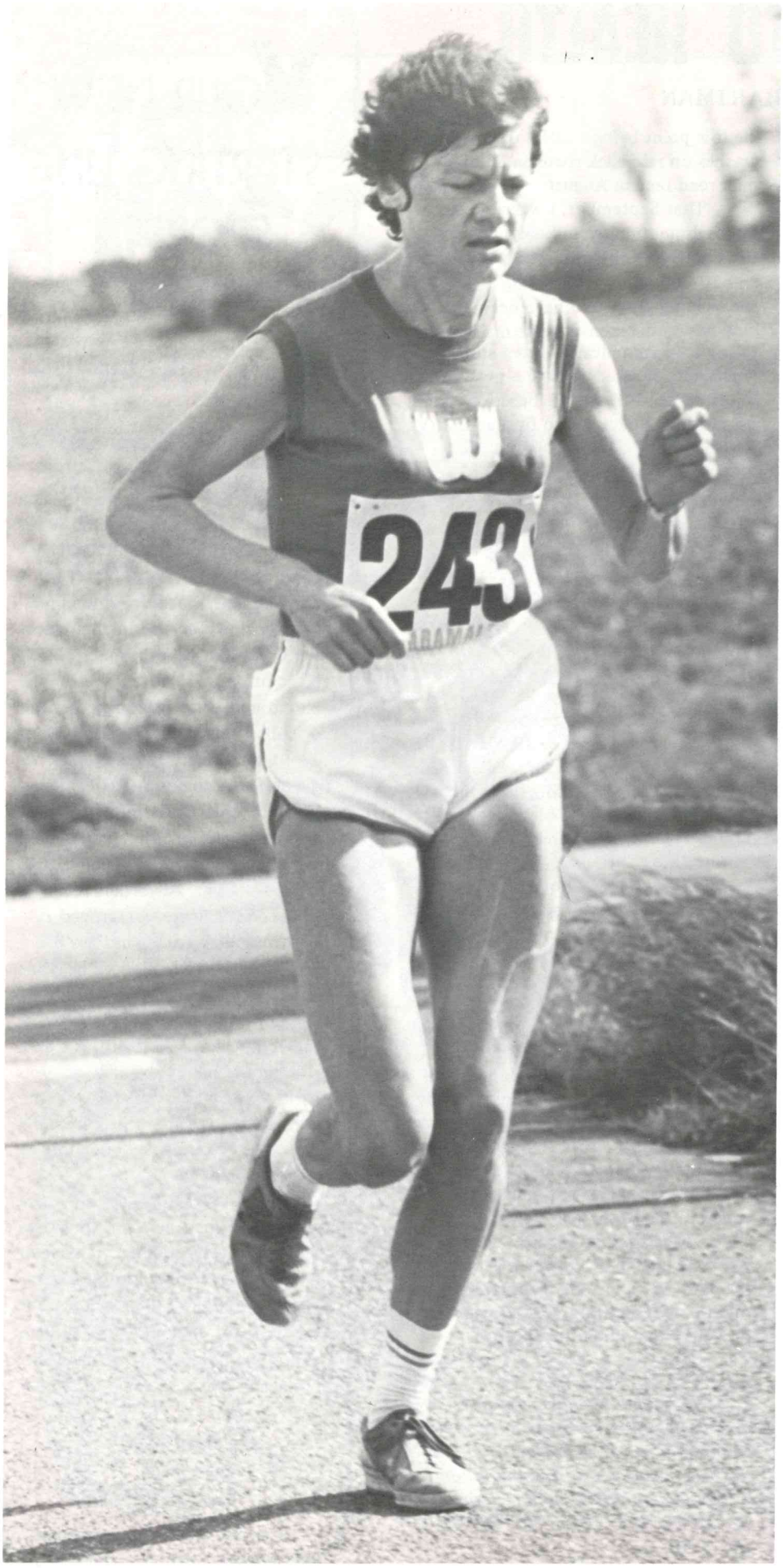
Dr. van Aaken and his nephew Jochen were cruising around the course continually in a Mercedes equipped with a loudspeaker. They could be heard giving splits in English and calling encouragement to all of us. At 30 kilometers, the doctor informed me that Judy, too, was slowing and that I would eventually catch her if I kept on pace. I thought he was mixed up, since only Jacki Hansen was visible ahead of me and Jacki was obviously not slowing at all (she finished fifth overall and first American in a personal best of 2:56:25).

But sure enough, there shortly before 40 kilometers was Judy, worn out by the battle with the wind and Liane Winter. I passed her, secretly pleased that I, the sixth (and hitherto slowest) wheel on the AAU team, should finish first. One last turn into the headwind, another kilometer fighting it, and I finished sixth in 2:58:09, with Judy right behind me in 2:58:47.

There were seven women under three hours, a new record. There was a sizeable gap before the next bunch of runners began to come in, led by Nina Kuscsik in 3:06. Over half the finishers broke 3:30, though few, because of the wind, managed a PR. Ruth Anderson, who had hoped to regain the Masters world record by running 3:17, had been chilled and blown around like a leaf on the last lap. She ran 3:25.

Despite the personal disappointment for many, the mood at the finish was festive, even euphoric, helped by the obvious enthusiasm and warmth of the spectators and the townspeople of Waldniel. Red Cross ladies flocked around us dispensing blankets and hot tea. We had to explain to them, however, that we were only tired, not dying. They kept trying to drag us off to the field hospital, while we wanted to stay and watch the others finish.

The schoolchildren swarmed around again, continuing their autograph contest. TV stations begged for appropriate remarks in German ("Women's marathon



in the Olympic Games" was considered appropriate) and looked (in vain) for a good set of newsworthy blisters to televise.

Dr. van Aaken, whose long-controversial views on the suitability of marathoning for women were so impressively vindicated, presided over the awards ceremonies and appeared much moved. He was not at all tired, however, and hosted a very *gemutlich* international party for runners and friends that evening in his house.

Liane Winter, the new champion, caught up with Marilyn and me as we limpred gracefully off to the doctor's party, and we began chatting. She is a tall (5'10") woman of 32 who ran cross-country more than 10 years ago "when we were lucky to be allowed to run 900 meters across the grass." At that time, she was good enough to be part of the German champion team for four years. Last year, after a long retirement, she took up distance running following the van Aaken training method. She ran her first marathon through snow and ice last February, in little over three hours. Her second, in May, was 2:57.

Liane's training is very simple: she runs once a day, in the evening after a full day's work, 20 kilometers one day over hills, a flat 30 kilometers the next. In the Waldniel marathon, she felt her size and strength gave her an advantage in the wind, which blew smaller women all over the place. And Liane did not worry that the early pace would tire her. "I'm used to finishing strongly," she told me. On her 30-kilometer workouts, she runs the first 10 kilometers easy, the second 10 at moderate pace and bashes the last 10.

The party was a happy babble of voices—German, English, French. Sometime after 1 a.m., though there were still no signs of a lull in the festivities, Tom Sturak and I managed to get Dr. van Aaken off in a side room for an interview (which will appear in a later issue of *RW*). With its leading light gone, the party slowly ground to a halt. By 3:30 a.m. when Tom and I, drooping with fatigue, had to terminate the interview, all was quiet in the other room.

Dr. van Aaken, having partied everyone under the table, was still full of energy and decided to read a while before retiring. We said good-bye with great reluctance, all of us surprised at the strength of the international friendships that had blossomed in those few days. We Americans will always, in the classic words of Jochen Gossenberger, "have a happy remembering of the little Willage of Waldniel." •

PEDALING TO HEALTH

BY KEITH HARTMAN

Running injuries may hurt physically, but the greatest strain and anguish is often mental. In other words, your friends, associates and family can't stand to be around you because you're so irritable—the complete grouch.

A major part of this problem can be alleviated by finding an alternate sport or activity to relax your mind and to keep up your condition. The ideal sport is one which will not only let you remain where you are in your training schedule, but also allow you to continue to improve. Bicycling might be it.

In my first year of running, starting in June 1969, I went through a depressing series of injuries: shin splints, sore hips and knees, calf muscle tear. Then I began to reach the big-time: a severe case of tendinitis in the right instep. With intermittent training, I was able to keep running and racing for awhile —until I began to feel a pain on the outside of my left ankle.

That's when the bicycle entered my life. I was chafing at the bit and decided to start riding a bike to work (nine miles each way). Being competitive, however, I was drawn like a gypsy moth to the flame of bicycle racing—tearing down the mountain roads at 50 miles per hour, wheeling through tight turns with a pack of other racers and avoiding spectacular mass crashes.

During 1971, bicycle racing was a big part of my life—the high point being a 17th place finish in the 103-mile Pan-Am Games selection race in June and the low point being a DNF after two crashes on rain-slick roads in an 80-mile road race in August.

That September, I was able to truly combine running and bicycling for the first time—30-35 miles of running and 80-100 miles of bicycling a week. In the ensuing years, as I have been able, running has again taken over the major portion of my training mileage. But I still bike whenever I'm tired or have a persistent injury (and I still use the bike for transportation). I have yet to find an injury that precludes bike riding.

I continue to bike race once in a while, but running is still my first love. Many runners would probably have the same feelings about bike racing that I have. It's fun and exciting because of the speed involved. But it's frustrating to have a mechanical failure, such as a flat tire, knock you out of a race. Also, one cannot enjoy the competition nearly as much as it unfolds, because you have to concentrate so hard to stay on someone else's wheel (like six inches from it), but not hit it and spill. In addition, training for biking takes more time, as three miles of bicycling (nine minutes) is approximately equivalent to one mile of running (seven minutes).

Bicycling may not be everyone's answer to injuries. (The best answer is to be smart enough to not get injured in the first place!) But I have solid evidence of its value to me as an alternative to running.

Last summer, I partially loosened one of the ligaments under the arch of my right foot from the bottom of the heel. After four months of exclusively bicycling, an average of 150 miles a week, I began running again. I jogged an easy mile the first and second days, and on the third day ran a 4:58 miles (my best time ever has only been 4:30).

Even more important, within four weeks of starting to run, I was racing better than ever in events from five miles on up. My condition had actually improved while riding the bike!

(Hartman, who teaches physics and coaches cross-country at Broome Community College in New York, ran 2:26 at this year's Boston marathon—only a few months after recovering from his latest injury. It was his first time under 2:30). ●

TRACK, FIELD, XC, TRAINING
ROAD RACING

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Starting Line Sports

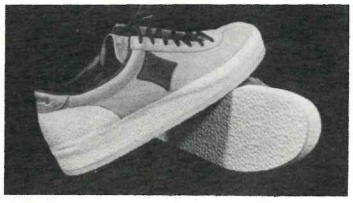
1975

Specialty Sports Catalog

We have tried to offer a balanced selection of the finest shoes for running available. To help you choose the shoes that are right for your needs we have broken this category into four parts: training shoes, light training and shoes for casual wear, racing shoes and spikes.

Shoes listed as training shoes are designed to give you the maximum support and cushioning you will need if you are running high mileage. The light training shoes offer less cushioning and support, but they are normally more stylish than the heavy training shoes so they can double for casual wear. Racing shoes are made to be as light as possible and they usually compromise cushioning and durability to achieve this end. Racing shoes are made for the person who is willing to pay the price of success. Spikes are designed to be worn in track and cross-country where the extra traction afforded by metal spikes is an advantage.

Training Shoes



• **Lydiard Road Runner** – World-renowned distance running coach Arthur L. Lydiard developed this new mileage conscious shoe for the distance runner. The sole and heel wedge have a high impact-absorbing quality while a soft molded bed on the insole exactly matches the contour and shape of the heel. Beige with a red diamond. Sizes: 8-12½.
EB02. . . . . Wt. 2 lbs. . . . . $28.95.

(A) **Tiger Cortez**—The overwhelming choice of distance runners for their heavy training. Leather uppers. Sizes: 3-13.
TG24. . . . Wt. 2¼ lb. . . $22.95.

(B) **Tiger Montreal '76**—This is the nylon successor to the famous Cortez. Featuring a new longer wearing sole and a finely crafted heel counter, this shoe offers a wider toe that is capped with rubber and leather to prevent injuries and tears if you stub your toe. Sizes 5-13.
TG28. . . . Wt. 2 lb. . . . $19.95.

(C) **Tiger Munich**—This is the deluxe Cortez. Ideal for long distance training and jogging. Features nylon padded tongue, leather lined ankle pad and heel counter. Sizes: 6-13.
TG27. . . . Wt. 2¼ lb. . . $26.95.

(D) **adidas Country**—An all purpose training shoe ideal for cross country. It features special padding for the heel and achilles tendon plus long wearing qualities. Sizes: 6-13.
AD01. . . . Wt. 2 lb. . . . $22.95.

(E) **Puma 9190**—Features uppers of tough blue nylon that are reinforced with leather, a thick foam wedge tapering from heel to toe for extra cushioning, and a tough rubber, long wearing sole. The super long distance shoe. Sizes: 5-13.
PU01. . . . Wt. 2 lb. . . . $25.40.

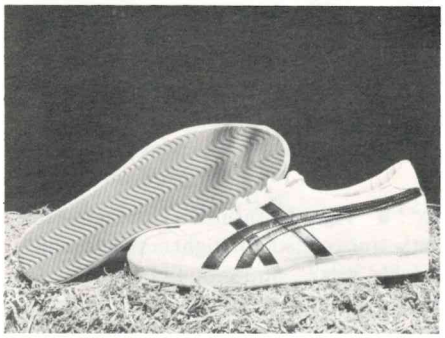
(F) **Nike Kenya Red**—Cortez-like training flat. Featherweight, weather-resistant swooshfiber uppers, ball to heel midsole cushions and heel wedges, high density herringbone out soles, SPENCO innersoles, full polyfoam tongues, arch bandages and padded ankle collars. Sizes: 6-13.
NK01. . . . . Wt. 2 lb. . . . $20.95.

Training and Racing Shoes

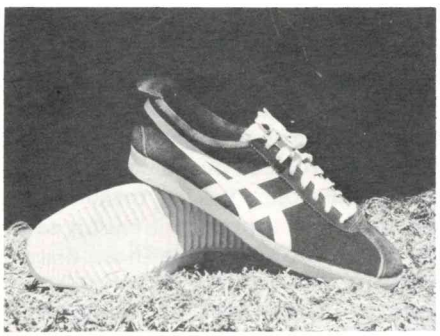
(G) **adidas SL '72**—With super-light nylon uppers. Designed to relieve strain on the achilles tendon. Special features include: long wearing traction tread sole, thick heel wedge, nylon heel cup and form fitting foam tongue. Sizes 6-13.
AD07. . . Wt. 2 lb. . . . $27.95.

(H) **Tiger Boston**—Runners can't find a better all-around shoe bargain. This nylon shoe is ideal for training or racing. Sizes 3-13.
TG26. . . . Wt. 1½ lb. . . $17.95.

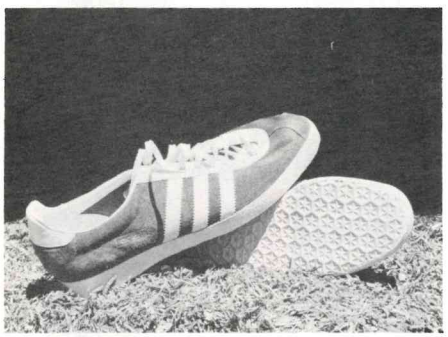
Light Training and Casual Wear



Tiger Vickka



Tiger Tahoe



adidas Gazelle

- **Tiger Vickka**—A durable, attractive model for every purpose—racing, training, casual wear. Leather. Sizes: 6-13.

TG06. . . . . Wt. 2¼ lb. . . . . $24.95.

- **Tiger Tahoe**—A blue suede training shoe, attractive enough for casual wear. The Tahoe combines a full cushion unit soling with corrugated outer sole. Sizes: 6-13.

TG04. . . Wt. 2¼ lb. . . $23.95.

- **adidas Gazelle**—Supple velour, blue leather uppers. Super soft microcell outersole gives cushiony feeling every step of the way. White rubber foxing smartly encloses the entire outsole for good looks and extra long wear. A solid shoe suitable for training or racing. Sizes: 6-13.

AD02. . . . . Wt. 2¼ lb. . . . . $26.95.

- **adidas Cadet**—A sharp looking all purpose shoe at a low price. It has a padded collar and blue-red-blue stripes. With extra padding for the protection of the heel and Achilles tendon, it is a real buy. Sizes: children's size 10 through adult size 8.

AD04. . . . Wt. 2 lb. . . $12.95.

- **adidas Rom**—An adidas best-seller for training and casual wear. Compare the features: special protective padding for heel and Achilles tendon, cushioning around ankle area, orthopedic arch support, saw toothed profile sole with color coordinated midsole and a rubber toe cap. Sizes: 6-13.

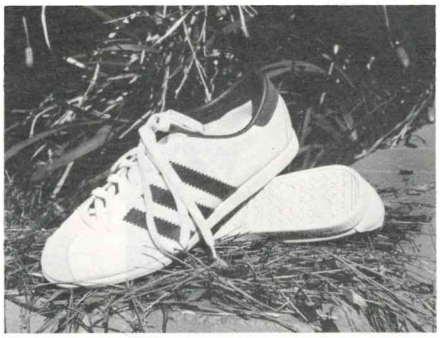
AD29. . . Wt. 2 lb. . . . $21.95.

- **Puma Crack**—Suede training shoe. Tasteful design makes it not only a fine training shoe but a good casual shoe also. Available in red and blue. Sizes: 6-13.

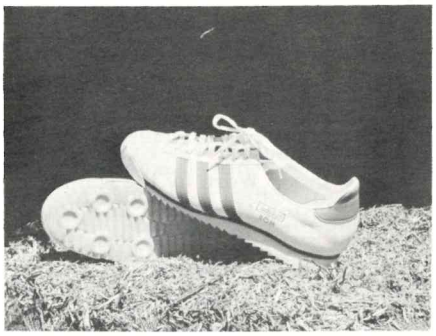
PU03. . . . Wt. 2 lb. . . . $24.95.

- **Puma 114 All-Around**—A well made shoe with an amazing sole that makes it suitable for running, tennis, basketball, gym, almost anything. It has sturdy white leather uppers and is available with either a red or a blue "Puma Stripe." Sizes: 6-13.

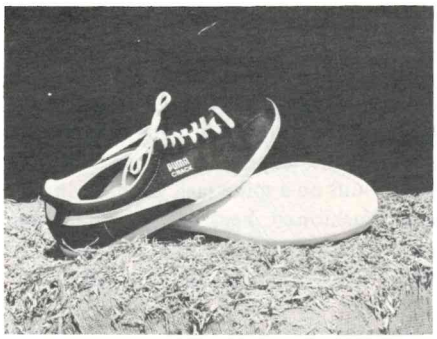
PU04. . . . Wt. 2¼ lb. . . . $19.95.



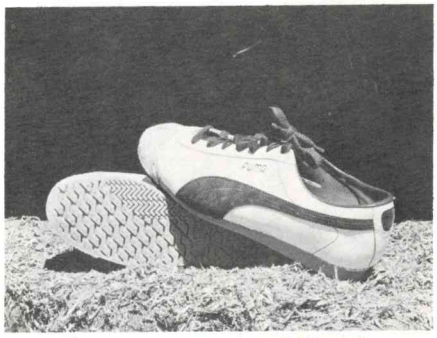
adidas Cadet



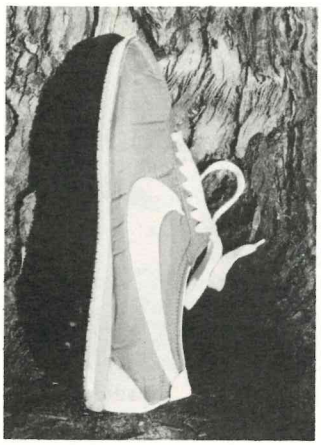
adidas Rom

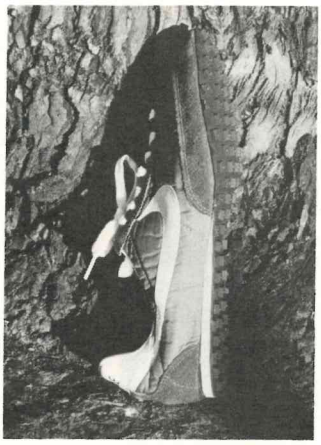


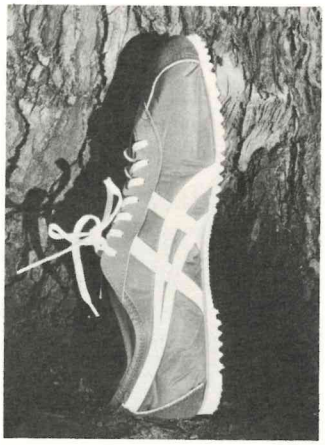
Puma Crack



Puma 114 All-Around


Nike Boston '73


Nike Oregon Waffle

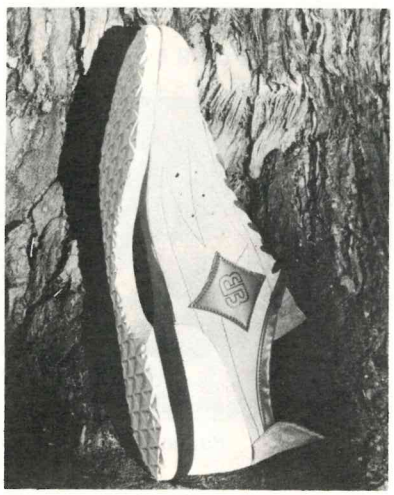

Tiger Marathon

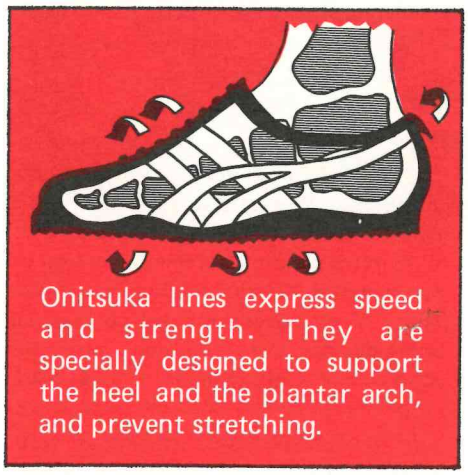
adidas Dragon

Racing Shoes

• **Nike Boston '73**—Excellent nylon racing shoe. Worn by the winner of the 1973 Boston Marathon. It features lightweight swoosh-fiber uppers, stitch free open toe construction for extra comfort, Spenco innersole, full length midsole cushion, elevated heel, long wearing suction tred outersole. Sizes: 6-13.
NK73. . . . . Wt. 1½ lb. . . . . $19.95.

• **Nike Oregon Waffle**—A revolutionary concept in running shoe design. The waffle-like sole affords unparalled traction and super cushioning. Nylon upper built on a spike last, cushion innersole, cushioned heel wedge and long wearing rubber waffle sole. Sizes: 6-12.
NK03. . . . . Wt. 1½ lb. . . . . $22.95.


Lydiard Marathon



• **Lydiard Marathon** — A revolution in road racing shoes. The fit resembles that of track spikes, yet allows free movement of the toes. The heel bedding is molded into the shoe. The soft, supple felt-like uppers and reinforced padded sole provide super comfort. Perforated uppers allow respiration while you run. Beige with a red diamond. Sizes: 8-11.
EB-03 Wt. 1¾ lb. . . . . $31.95.

• **Tiger Jay Hawk**—Tiger's latest lightweight racing shoe is ideal for indoor track, cross country and road racing. It has a gum rubber "suction tread" outer sole and a full cushion mid-sole with heel wedge for Achilles tendon protection. It also has a rounded heel for perfect foot plant, a heel collar and a leather reinforced heel counter for firm lateral support. Sizes: 4-13.
TG05. . . . Wt. 1½ lb. . . $18.95.

• **Tiger Marathon**—The racing flat that's unexcelled for lightness and comfortable wear. Superior lightness incorporated with a corrugated sole that grips on any surface, makes the Marathon an excellent cross-country shoe. Red or blue nylon uppers. Sizes: 3-13.
TG09. . . . . Wt. 1¼ lb. . . . . $14.95.

• **adidas Dragon**—Similar to the SL'72, but without the wrap-around sole and not quite as much cushioning. Comfortable nylon weave uppers. Leather cap around toe and outside of shoe for extra protection. Padded tongue, top edge and arch support. Non-slip saw profile sole. Good racing shoe. Sizes: 6-13.
AD06. . . . . Wt. 1¾ lb. . . . $21.95.

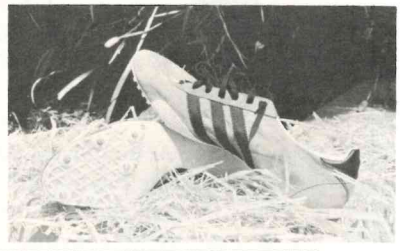
Tiger Jay Hawk

Racing Spikes

A

B

C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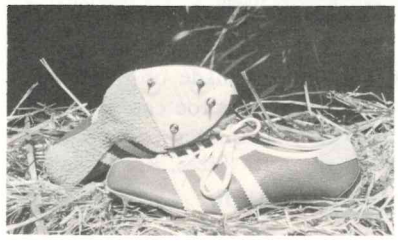

G

Ⓐ **Tiger Olympiad XIX**—The combination of the durability and lightness of nylon make this a superb racing spike. Blue nylon uppers on a new lighter, more flexible nylon spike plate. Orthopedically designed wrap-around sole gives ball to heel protection. Mid-layer of cushion foam. Rubber sole from ball to heel. Spike wrench and carrying bag included. Sizes 6-13.
TG29. . . . . Wt. 1¼ lb. . . . . $22.95.

Ⓑ **Tiger Helsinki**—A superlight spike with blue suede leather uppers. It features a new lighter, more flexible nylon plate with four interchangeable spikes. Orthopedically designed wrap-around sole. Heel cushion plus foam and fabric tongue for added comfort. Rubber sole from ball to heel. Spike wrench and carrying bag included. Sizes 6-13.
TG30. . . . . Wt. 1½ lb. . . . . $25.95.

Ⓒ **Tiger Spartan "B"**—This ultra-modern shoe was designed by athletes for athletes and incorporates metal gripping elements, plastic grooves and protrusions to give you unfailing traction on all-weather tracks under either wet or dry conditions. Gold nylon uppers. Spike wrench and carrying bag are included. Sizes 8-12.
TG33. . . . Wt. 1½ lb. . . . $33.95.

Onitsuka Tiger®

®adidas

Ⓓ **adidas Spider**—The most successful track shoe of the Munich Olympics in the sprint events. It is made out of super soft velour leather and features a new heel construction for greater comfort and a heel wedge to relieve strain on the Achilles tendon. Sizes 8-12.
AD12. . . . . Wt. 1½ lb. . . $40.95.

Ⓔ **adidas Saturn**—A great value combining quality with a reduced price. Made of blue velour leather for a perfect fit. New special padding for protection of the heel and Achilles tendon. Extra padding underneath the heel for a comfortable run. Form fitting nylon sole. Four interchangeable spikes. Sizes 6-13.
AD13. . . . . Wt. 1½ lb. . . . $25.95.

Ⓕ **adidas Comet**—A low priced adidas track shoe with soft split oxhide uppers. A soft heel wedge, protecting the shank and heel areas, a foot form tongue, and all combined with a flexible form-fitting nylon sole. Interchangeable spikes. Sizes 5-13.
AD14. . . . . Wt. 1½ lb. . . . . $21.95.

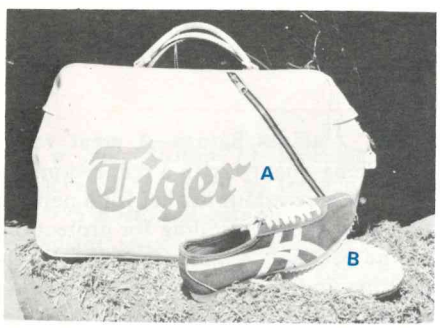
Ⓖ **adidas Avanti**—A very low priced adidas track shoe. An excellent all purpose shoe for the high school beginner. With blue leather uppers, white stripes, and interchangeable spikes. Sizes 1-8.
AD15. . . . . Wt. 1½ lb. . . . . $13.95.

PUMA

nike

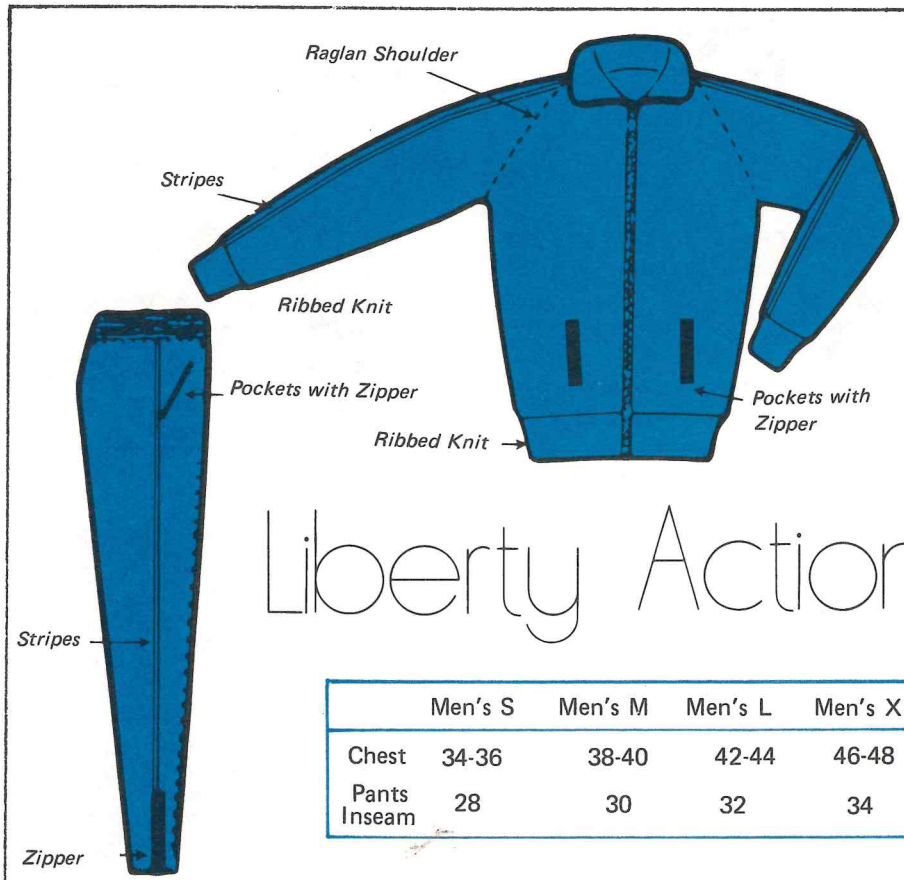
Running Budget Savers

The items on this page represent special savings for you. They are all first quality merchandise items that we are unable to get any longer and so we are forced to close out our remaining inventories at sale prices. We are pleased to make these unusual savings available to you our best customers.



(A) **Tiger Munich '72 Tiger Carrying Bag**—Special sale of this commemorative carrying bag. It's a roomy bag at a discount price.
TG75.... Wt. 2½ lb.... $8.95.

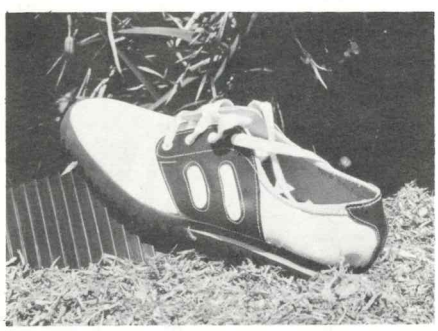
(B) **Tiger Bangkok**—Sturdy blue suede uppers and a well padded, heavily treaded sole make this an excellent shoe for training on dirt trails. Sizes 6-13.
TG21.... Wt. 1½ lb.... $18.95.



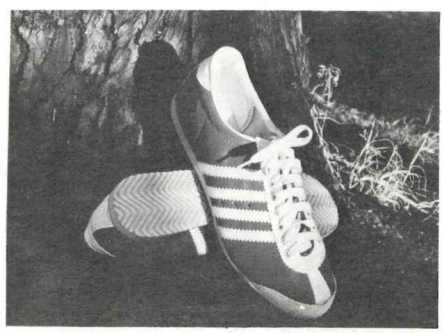
Liberty Action

	Men's S	Men's M	Men's L	Men's XL
Chest	34-36	38-40	42-44	46-48
Pants Inseam	28	30	32	34

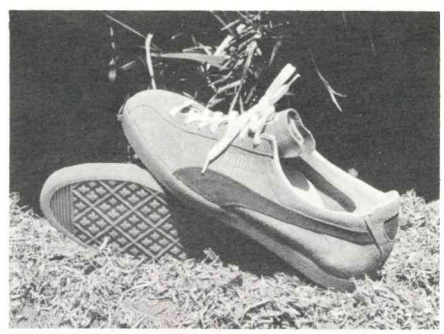
● **Liberty Action Sweat Suit**—All-around 100% stretch nylon suit for leisure wear. Dynamic-dual white striped jacket is beautifully constructed with full action sleeves, full length zipper, popular convertible collar and two front zippered pockets. Pants are tailored ski-style with zip-closing tapered ankles and zippered side pockets. The waist band is elasticized to give comfortably with your every movement. Colors: Royal Blue, Columbia Blue, Navy Blue, Scarlet Red, Kelly Green, Forester Green, White Suits with Red and Blue Stripes. Sizes: Men's S. M, L, XL.
LB01..... Wt. 2½ lb..... $20.95.



● **New Balance Trackster II**—Designed for long distance training and racing, it is perfect for runners with foot, ankle, leg or knee problems. Sizes: 5½-12.
NB02.... Wt. 1¾ lb.... $14.95.



● **Bob Wolf Jogger**—A real bargain, this shoe is made of rugged blue nylon with a rubber toe cap. For comfort it has a heel counter, padded tongue and arch support. Sizes: 8, 9-11and 12.
BW01.... Wt. 1½ lb.... $5.95.



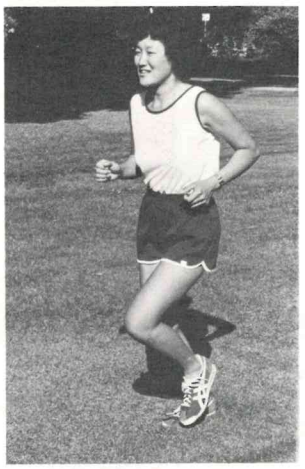
● **Puma Delphin**—This suede shoe is tastefully designed so that it is not only a fine training shoe, but it is also a great casual shoe. Comes in gold with a green stripe. Sizes 6-13. Except 11.
PU02.... Wt. 2¼ lb.... $19.95.

Women in the sport

• **Brooks Model 210**—This shoe is especially designed to meet the needs of today's female athletes. Gold nylon upper in a women's B-C last. The nylon uppers are reinforced with gold suede leather where the sole and nylon meet. The shoe features a firm heel counter, rubber arch support, towel sock lining, fully padded sole and a heel wedge. Sizes 4-10.
BR01.... Wt. 1½ lb.... $18.95.

• **Brooks Model 211**—A ladies shoe in white top grain leather, trimmed with blue suede. It comes in a B-C width and includes the following special features: a firm heel counter, rubber arch support, towel sock lining, fully padded sole and a heel wedge. Sizes 4-10.
BR02.... Wt. 1½ lb.... $19.95.

• **Sof-T**—80% orlon acrylic, 20% nylon. Pom Trim with STRETCH ped and cushion sole. Heavy crochet edge trim. Trimmed white/navy, white/red. One size fits all.
WW04.... Wt. ¼ lb.... $1.85.



Nylon Singlet and Shorts

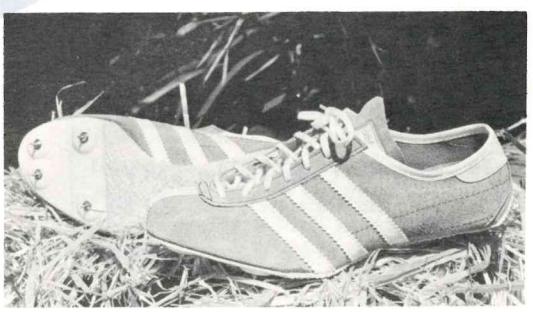
• **adidas Okapi**—A spike especially designed for women. It has soft, velour uppers that conform to the shape of your foot. It is pale green with four interchangeable spikes. Sizes: 2½-11.
AD16..... Wt. 1½ lb..... $16.95.

• **Women's Nylon Singlets**—Modern pull-on tank tops tailored to assure feminine appearance and still allow freedom and comfort. Machine washable and no need to iron. Sizes: 32,34,36,38. Colors: Solid white with blue, red, green trim.
BR01.... Wt. ½ lb.... $6.50.

• **Women's Nylon Track Shorts**—Popular standard length competition briefs, plus the new bikini and both in 100% nylon "softskin". Lightweight and modest, with comfortable elastic at waist and leg openings. Colors: Competition: Blue, green, red, with white trim. Bikini: Blue only.
Sizes: 32,34,36,38. Wt. ½ lb. each.
BR02... Competition Briefs $5.95.
BR03... Bikini Briefs... $5.50.

• **Miss Raquet**—80% orlon acrylic 20% nylon exclusive of trim. STRETCH all around cushion foot. White trimmed with white, navy, red, powder blue, green, or yellow. One size fits all.
WW03.... Wt. ¼ lb.... $1.85.

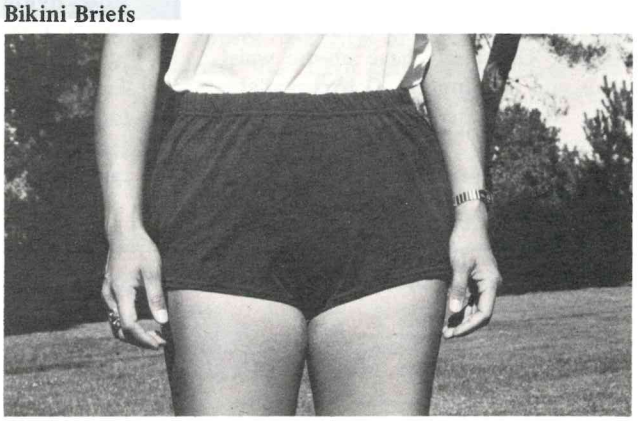
Miss Raquet



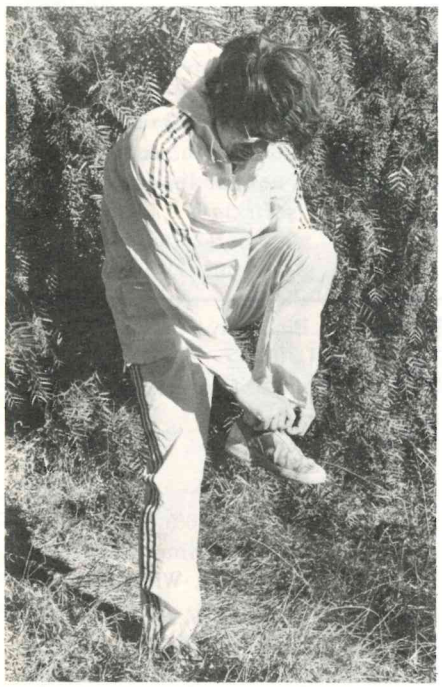
adidas Okapi

Brooks Model 211

Bikini Briefs



Athletic clothing, carefully designed and well made, will enhance the enjoyment of any sport or game.



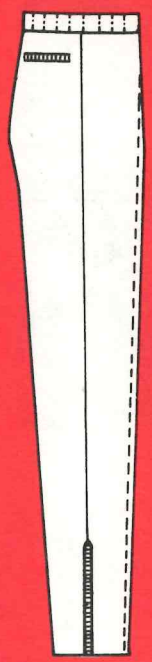
• **adidas Rainsuit**—The rainsuit is 100% polyamide and is wind and waterproof. The jacket has a hood and the trousers have leg zippers. Comes packed in its own pocket. Comes in navy, royal, red and yellow. Sizes on chart.

AD89 Wt. 1 lb. Complete set $28.95
Top or bottoms separately: $14.50

JOG-JOY SWEAT-SUITS

• **Jog Joy Sweat Suits**—A fine 100% acrylic warm-up. The jacket features zip up front and zipper pocket. The pants have ankle zippers and one zipper pocket. Comes in navy blue, royal blue, forest green and red. Sizes: xs, s, m, l, xl.

TY01 . . . . . Wt. 2 lb. $24.95



	XS	S	M	L	XL
Chest	30-32"	34-36"	38-40"	42-44"	46-48"
Waist	24-26"	28-30"	32-34"	36-38"	40-42"
Inseam	26-28"	27-29"	28-30"	29-31"	30-32"

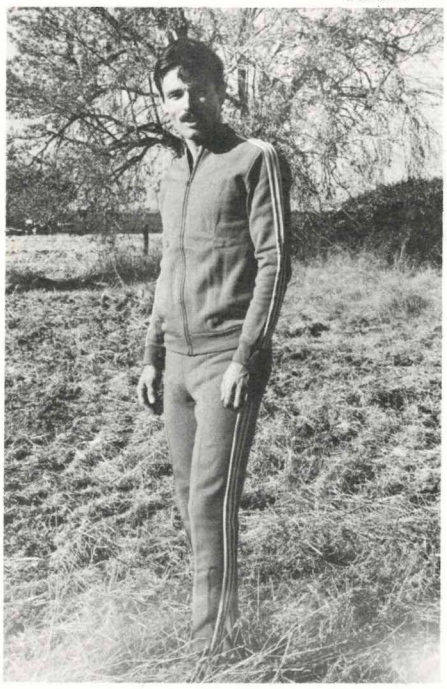
• **adidas 14**—A full cut stretch nylon cotton warmup that is tailored so you look sharp. The jacket has a turtle neck collar, elastic cuffs and a front zipper. The pants have elastic waist bands and leg zippers. Colors available: Navy, Royal, Red and Green. Sizes on chart.

AD83 . . . . . Wt. 2 lb. $40.95

• **adidas 7**—A real find for the smart shopper of discriminating tastes, this nylon cotton warm-up suit features a jacket with fleecy inside, mandarin collar, front zippers, cuffs. The pants have elastic waistband and leg zippers. Available in Navy, Royal, Red and Green. Sizes on chart.

AD84 . . . . . Wt. 2¼ lb. . . . $32.95

adidas 7



SIZE SCALE "ADIDAS 14", "ADIDAS 7" & ADIDAS RAIN SUIT							
IF HEIGHT IS:	5'1"	5'4"	5'6"	5'9"	5'11"	6'1"	6'4"
ORDER SIZE:	XXS	XS	S	M	L	XL	XXL

Athletic Clothing

(A) **Double Knit Nylon Mesh Singlets** – For coolness and comfort there is nothing like lightweight double knit nylon. Trimmed in white it comes in blue, gold and green. Sizes: m(38-40), l (42-44), xl (46-48).
HK01..... **Wt. ½ lb**.... **$4.95.**

(B) **Nylon Racing Singlets**—The racing shirt that lets you breathe. Sizes: s(34-36), m(38-40), l(42-44), xl(46). Colors: blue, gold and green.
SO05..... **Wt. 3/4 lb**.... **$4.95.**

(C) **Cotton/Rayon Singlets**—Excellent tank tops for training or racing. They feature white trim around the neck and arms, and come in royal blue, gold, and kelly green. Sizes: s(34-36), m(38-40), l(42-44), xl(46).
SO04..... **Wt. 3/4 lb**..... **$2.75.**

(D) **Trimmed Cotton Shorts** – Finest quality cotton shorts with vented legs. Sizes: s(28-30), m(32-34), l(36-38), xl(40-42). Available in Navy trimmed with white and white trimmed with blue or scarlet.
SO-02 ..... **Wt. ½ lb**..... **$2.75.**

(E) **Nylon Track Shorts**—Single ply nylon track pant with vented leg. Sizes: xs (24-26), s (28-30), m (32-34), l (36-38), xl (40-42). Available in blue, green, scarlet and gold.
SO01..... **Wt. ½ lb**..... **$3.45.**

(F) **Plain Cotton Shorts**—First quality cotton shorts with vented legs, but in solid colors only. Sizes: m(32-34), lg(36-38), xlg(40-42). Available in blue, scarlet and green.
SO03..... **Wt. ½ lb**..... **$2.75.**

- **T-shirts**—Regular cotton T-shirts in gold, green, blue, oxford and orange. Sizes: s(30-33), m(33-35), l(36-39), xl(38-40).
SO06..... **Wt. ½ lb**..... **$1.98.**

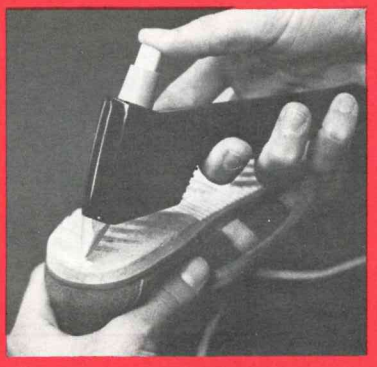
T-SHIRTS!

- **E.R.G. T-Shirt**—Features a bold E.R.G. with a blazing lightning bolt through it. Available in red, green, blue, gold, white, orange and grey. Sizes: s(30-33), m(33-35), l(36-39), xl(38-40).
WP-41 ..... **Wt. ½ lb**..... **$3.00.**

- **24 Hour Relay T-Shirts**-These are the official Runner's World 24 Hour Relay shirts. These attractive shirts make appropriate gifts or mementos for runners that have completed or aspire to complete the ultimate relay challenge. Same sizes and colors as above.
RW-24..... **Wt. ½ lb**..... **$2.75.**

- **Tiger T-Shirt**—This unusual T-shirt features a colorful "Rising Sun," the official symbol of Japan, and the Tiger logo. Available in white with blue-trimmed sleeves and collar. Sizes: M, L, XL.
TG-72 ..... **Wt. ½ lb**..... **$3.50.**

sole repair kit



The simplest, quickest and most economical method yet devised for extending the life of athletic shoes.

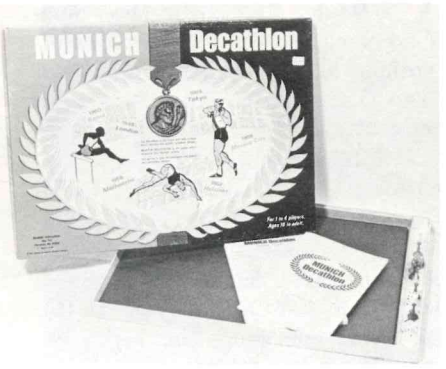
In most athletic activity, the feet must absorb the shock of the body weight thousands of times. And even an apparently minor amount of shoe sole wear can cause major problems with the resulting imbalance straining feet, ankles, shins, knees, hips, and back. Continuing to train and compete on worn soles invites chronic leg pains and injuries of all kinds.

Next time your shoes are showing wear, instead of continuing to use them until injuries result, or investing in an expensive new pair, avoid this needless injury and expense by using the *Sole Repair Kit.* By regular inspection of the soles and use of the repair gun whenever necessary, the useful life of your athletic shoes can be extended many times. It's easy and inexpensive: just push the repair pellet through the gun and build up worn areas with the hot material which flows from the nozzle. Each pellet of repair material lasts for several applications and costs only a few pennies.

More and more athletes—runners, hikers, and others—have discovered the added comfort and safety the Sole Repair Kit can provide. And it can do the same for *you.* The Repair Kit, including the Sole Repair Gun, ten sticks of repair material, and detailed instructions are available exclusively through Starting Line Sports and its dealership network. The Kit will pay for itself in no time, and the pleasure of injury-free athletics will go on forever. WP-15 Wt. ¾ lb. $6.50.

track games

• **Sports Illustrated Track Meet Game**—If your family runs together and plays together, here is the ideal game for for you. With this game, staging a track meet in your living room is fun for the whole family. 2-6 people can play.
SI-01 . . . . . Wt. 3 lb. . . . . $10.00.



• **Munich Decathlon Game**—This new, exciting track game contains the same ten authentic events of the olympic decathlon. Highest quality materials. Perfect gift for ages 10 thru adult. A strategic challenge for 2 to 4 people.
SI102. . . . . Wt. 2¾ lb. . . . . $6.95.

• **Hanhart Economy Model W-10.** The proven three button operation has become indispensable when exact timing results are required. Accurate to a tenth of a second, this watch is water protected and cannot be overwound.

W-10. . . . . Wt. ½ lb. . . . . $24.95.

Hanhart premier

Hanhart has met the challenge of the everchanging world, which is experiencing an accelerated "pace of living," caused by the dynamic urge to compete. This competitive "speed of living" is manifested in knowledge as well as know how, brain as well as brawn, and is further expressed in fractions of a second. "Time" is of the essence! Each Hanhart stopwatch is packed with a Guarantee Slip, giving complete instructions for returning stopwatches for repair.

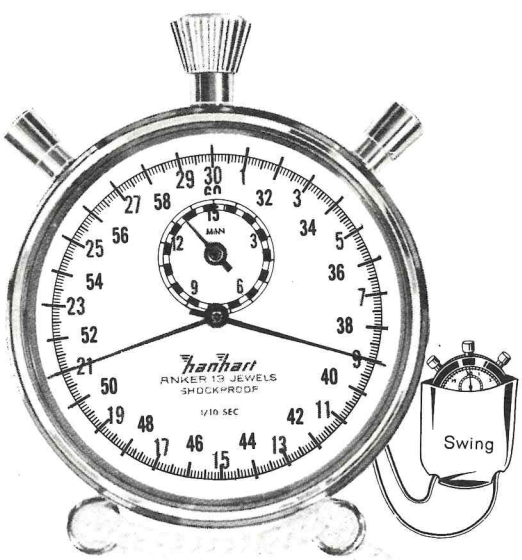
Model	1-5 (each)	6 or more (each)
W-10	$24.95	$21.95
W-20	$33.95	$29.95
W-30	$34.95	$30.95
W-40	$84.95	$73.95
W-50	$88.95	$77.95

• **Hanhart Special Model W-20.** A general purpose stopwatch. It has a 60 second dial and is accurate to one-fifth second. It is recommended for such purposes as timing games, most athletic events, medical tests, and also as a telephone watch. It features 7 jewel movement and is shockproof.

W-20. . . . . Wt. ½ lb. . . . . $33.95.

• **Hanhart Standard Model W-30.** A fine watch for timing all short and medium distance athletic events, for skiing, motor racing, cycling, rowing, and swimming competitions. It has a 7 jewel movement and is accurate to one-tenth second.

W-30. . . . . Wt. ½ lb. . . . . $34.95.



• **Hanhart Double Hand Split Model W-40.** A popular watch among coaches. Double hand feature allows timing of several contestants. It has a lever 7 jewel movement and one-tenth second accuracy. Swing model.

W-40. . . . . Wt. ½ lb. . . . . $84.95.

• **Hanhart Precision Double Hand Split Model W-50.** This precision double-hand split-timer is used specifically for short distances and for easy reading of the one-tenth second dial. It is recommended for all sorts of short distance races, competitive sports and research. Shockproof with seven-jewel movement.

W-50. . . . . Wt. ½ lb. . . . . $88.95.

FILM LOOPS
Track and Field

PRICES

- 16 mm — 1-4 loops, $4.50 ea. — 5 or more $3.75 ea.
- Super 8 mm — 1-4 loops, $3.50 ea. — 5 or more $2.95 ea.
- 8 mm — 1-4 loops, $3.40 ea. — 5 or more $2.90 ea.
- Wt. ¼ lb.

Sprints (Starts)

FC01 JIM HINES
FC02 VALERIY BORZOV
FC03 TOMMIE SMITH

Sprints (Full Stride Sprinting)

FC04 CHARLIE GREENE
FC05 LARRY BLACK
FC06 LEE EVANS
FC07 JULIUS SANG
FC08 JOHN SMITH

Middle & Long Distances

FC09 PETER SNELL & RALPH DOUBELL
FC10 DAVE WOTTLE
FC11 JIM RYUN vs. KIP KEINO
FC12 PEKKA VASALA vs. KIP KEINO
FC13 LASSE VIREN vs. STEVE PREFONTAINE
FC14 DAVE BEDFORD
FC15 RON CLARKE, MAMO WOLDE
FC16 FRANK SHORTER

High Hurdles

FC17 ROD MILBURN
FC18 WILLIE DAVENPORT
FC19 THOMAS HILL
FC20 EARL McCULLOUGH

Intermediate Hurdles

FC21 JOHN AKII-BUA
FC22 RALPH MANN
FC23 DAVID HEMERY

High Jumps

FC24 DICK FOSBURY
FC25 DWIGHT STONES
FC26 VALERIY BRUMEL
FC27 ED CARUTHERS
FC28 PAT MATZDORF

Long Jump

FC29 BOB BEAMON
FC30 RALPH BOSTON
FC31 RANDY WILLIAMS
FC32 IGOR TER-OVANESYAN
FC33 HANS BAUMGARTNER

Triple Jump

FC34 VIKTOR SANEYEV
FC35 JORG DREHMEL
FC36 JESEF SCHMIDT

Pole Vault

FC37 BOB SEAGREN
FC38 WOLFGANG NORWIG
FC39 JOHN PENNEL

Shot Put

FC40 RANDY MATSON
FC41 GEORGE WOODS
FC42 WSLADYSLAW KOMAR
FC43 AL FEUBERBACH

Discus Throw

FC44 LUDVIK DANEK
FC45 JAY SILVESTER
FC46 AL OERTER

Javelin Throw

FC47 JANIS LUSIS
FC48 KLAUS WOLFERMANN
FC49 JORMA KINNUNEN

Hammer Throw

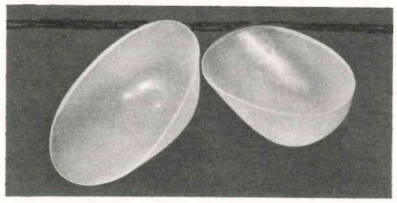
FC50 ROMUALD KLIM
FC51 GYULA ZSIVOTZKY

These are loops and NOT cartridges.

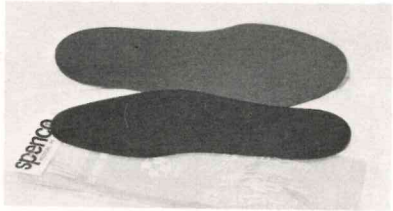
• **Sole Repair Kit**—The most revolutionary development in shoe sole repair. Use a shoe sole repair kit and your shoes will never wear down. See ad pg. 7.
US01. . . . . **Wt. ¾ lb**. . . . . **$6.50.**

• **Sole Repair Pellets**—Prices including postage are 10 pellet pack **$.95**, 50 pellet pack **$4.25** and giant economy 100 pellet pack **$7.50.**

• **Sole Saver**—Get more miles out of your shoes by using Sole Saver.
CP01. . . . **Wt. 1 lb**. . . . **½ pints $2.75.**
CP02. . . . **Wt. 1½ lb**. . . . **pints $4.50.**



• **M-F Heel Protectors**—Protects against bruises, spurs, shin splints, blisters, callouses. One size fits all.
MF01. . . . . **Wt. ¼ lb**. . . . **$2.00/pair.**

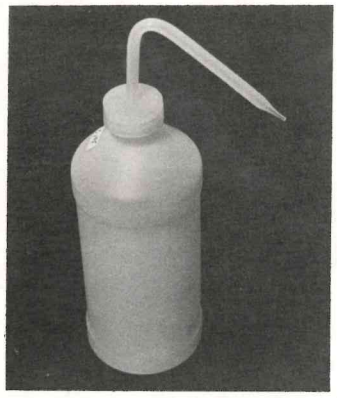


• **Spenco Insoles**—The most comfortable cushioning available. Men's sizes: 6-7, 8-9, 10-11, 12-13, 14-15. Women's sizes: 5-6, 7-8, 9-10.
SM01. . . . . **Wt. ¼ lb**. . . . . **$3.95/pair.**

• **Wigwam Cotton Tube Socks**—Packed two pairs to a package, these cool cotton socks are cushioned for your comfort. Fits 9-15.
WW01. . . . . **Wt. ¼ lb**. . . . . **$2.45.**

• **Wigwam Wool Tube Socks**—S-T-R-E-T-C-H tube sock completely cushioned from toe to top. 40% wool, 40% herculon Olefin, 20% nylon. Fits 9-15.
WW02. . . . . **Wt. ¼ lb**. . . . . **$1.85.**

• **Snow Seal**—Famous wax waterproofer for leather boots.
MP-29-4 oz. . . **Wt. ½ lb**. . . . . **$.75.**
MP-29-8 oz. . . **Wt. ¾ lb**. . . . . **$1.25.**



• **Cramer Squeeze Bottle**—"Heavy duty" plastic squeeze bottles with plastic dispensers. This pint bottle is excellent for that liquid snack during marathons.
CR07. . . . . **Wt. ¼ lb**. . . . . **$1.95.**

• **Cramer Skin Lube**—Prevents blisters. Use over callouses and areas where rubbing by equipment creates friction. 3 ounce tube.
CR01. . . . . **Wt. ¼ lb**. . . . . **$1.59.**

• **Cramer Salt Tablets**—Non-nauseating because they are impregnated to dissolve slowly. 100 tablets of 10 gr.
CR04. . . . . **Wt. ½ lb**. . . . . **$.89**

• **Cramer Vitamin "C" Tablets**—Each tablet contains 3 and one-third times the adult daily minimum requirements of Ascorbic Acid or Vitamin "C". 100 tablets of 100 mg.
CR05. . . . . **Wt. ½ lb**. . . . . **$2.95.**

• **Cramer Dextrotabs**—To increase depleted carbohydrate reserves or to minimize fatigue effects. Readily absorbed without upsetting digestion. 300 tablets of 25 gr.
CR06. . . . . **Wt. 1½ lb**. . . . . **$3.50.**

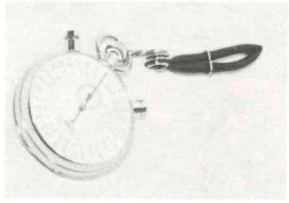
• **Paket Pocket Soap**—Don't pollute the environment, when you are hiking or camping use biodegradable, non-polluting Paket Pocket Soap. Plastic tube containing enough for 50-60 washings.
PP01. . . . . **Wt. ¼ lb**. . . . . **$.70.**

• **Bike Athletic Tape**—Good for taping worn out shoes, protecting against blisters and anything else. 1½ inch cut.
BK02 Wt. 2 lb. . **(12 rolls) $4.95.**

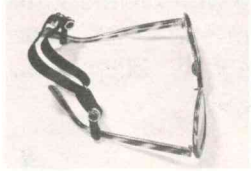
• **Bike No. 10 Athletic Supporter**—America's most popular supporter. 3" cotton elastic waistband; nylon reinforced, porous-knot pouch; 1" leg straps. Heat and shrink resistant. s (26-32), m (32-38), l (38-44).
BK10. . . . . **Wt. ¼ lb**. . . . . **$1.35.**

• **Bike Headbands**—Orlon-acrylic and terry cotton white stripes. Non-fade orlon acrylic wicks the moisture to thirsty cotton center. Machine washable. Red, white and blue or green and white stripped.
BK01. . . . . **Wt. ¼ lb**. . . . . **$1.09.**

• **Anti-Fog**—You know how annoying and dangerous it can be when your glasses keep fogging up. Just one application of Anti-Fog guarantees you hours of clean lens and crystal clear vision. A long-lasting 14cc supply in each bottle.
YG01. . . . . **Wt. ¼ lb**. . . . . **$1.50.**

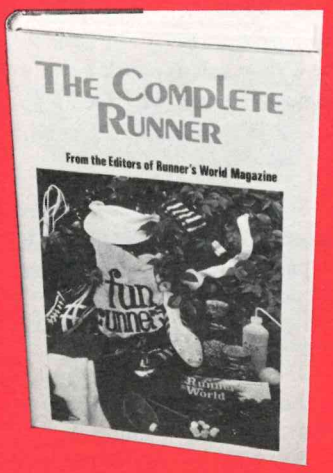


• **Time Gard Finger Lanyard**—Don't let your watch slip out of your hand, use a finger lanyard.
SR02. . . . . **Wt. ¼ lb**. . . . . **$.75.**



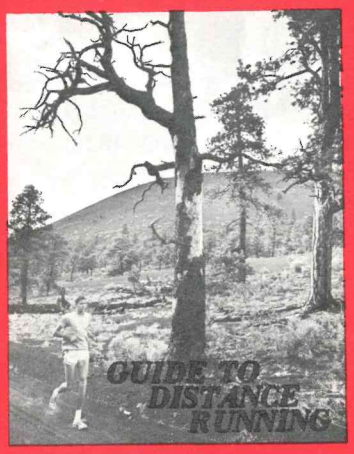
• **Glass Gard**—Eye glass holder. One size fits all. Don't let your glasses slip around, use a glass gard.
SR01. . . . . **Wt. ¼ lb**. . . . . **$1.00.**

The Complete Runner



At last the runner—the fitness runner, the racing runner and the potential runner—has a complete reference book written just for him or her. **The Complete Runner**, a new book compiled by the editors of **Runner's World** magazine, may be the ultimate track and field publication—the first comprehensive survey of the sport and art of running today. Running has changed greatly over the last few years, as greater participation and greater performances have combined to put the sport in the public's eye as never before. Now this new book puts it all together for you. Every aspect of running (just check the list of section headings) is covered by experts—like Dr. George Sheehan, Joe Henderson, Hal Higdon and Brooks Johnson. The biggest names in running journalism and photography are combined in one volume to bring you the total running message. As the one complete reference and guidebook for all your running questions and problems, **The Complete Runner** will become the indispensable mainstay of your running library.

The Complete Runner
Published Sept. 1974, 398 pages, hardcover, illustrated. **$10.95.**



Guide to Distance Running
Published 1971 (3rd printing with revised statistics section, 1974). Paperback, 8½ x 11. 208 pages., ill. **$4.95.**

Now in its third big printing, the **Guide to Distance Running** has, in just three years, become the number one reference book for all distance runners and coaches. Many books are incorporated into the **Guide**—each heading could make up an entire book on its own. But the **Guide** is the one volume that gives runners, coaches, and other students of the sport a well rounded sampling of the best writing and photography done on distance running. The guide is the book you'll consult time and time again.

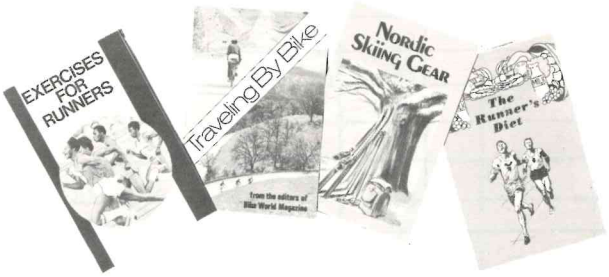
To accomplish its goal of exhaustive and complete yet concise coverage the **Guide** contains nearly 100 articles by more than 50 different authors, and about 100 photos from 20 photographers.

To run with the stars (Hill, Ryun, Clarke), race the great races (Boston, Springbank, and Olympics), take advice from the experts (Dr. Sheehan, Joe Henderson, Jim Dunne), and sit at the feet of the great coaches (Igoli, Lydiard, Cerruty); get your **Guide to Distance Running** today.

GUIDE TO DISTANCE RUNNING

Starting Line Sports

Book List



Starting Line Sports' own booklist features excellent books for the active sportsperson. We specialize in books for the runner, bicyclist and nordic sports enthusiast. All books are paperback unless otherwise noted:

For the Runner:

- **Run Gently, Run Long.** Joe Henderson's sequel to his famous "LSD" book. Guidelines for a long and enjoyable career. 1974, 100 pp., ill. $2.50.
- **First Steps to Fitness.** Written for all beginning runners, regardless of age or physical condition. A vitally important book. 1974, 68 pp., ill. $1.50.
- **Age of the Runner.** The effects of age (young and old) on performances, and the effects of running on aging. 1974, 68 pp., ill. $1.75.
- **The Female Runner.** The first complete look at women in running. Presents many surprising facts. 1974, 35 pp., ill. $1.25.
- **Exercises for Runners.** Best-selling book covering the many injury-avoiding and -overcoming exercises *all* active people can use. 1973, 84 pp., ill. $1.95.
- **Shoes for Runners.** Gives complete details and specifications on all types of running shoes. An indispensable guide. 1973, 84 pp., ill. $1.95.
- **Runner's Training Guide.** All known methods of training are presented by experts, letting readers choose for themselves. 1973, 100 pp., ill. $2.50.
- **The Runner's Diet.** Vital guide to the correct feeding and watering of runners. Presents many important and startling ideas. 1972, 84 pp., ill. $1.95.
- **Encyclopedia of Athletic Medicine.** A complete guide to the causes and treatments of injuries commonly related to running. 1972, 100 pp., ill. $1.95.
- **Guide to Distance Running.** The number one reference book for all distance runners and coaches. 1971 (revised 1974), 208 8½ X 11 pp., ill. $4.95.
- **The Complete Runner.** The most complete and up-to-date book available on all phases of running. 1974 hardback, 398 pp., ill. $10.95.

For the Bicyclist:

- **Traveling By Bike.** Excellent guide to bike touring, with emphasis on the practical side of this enjoyable sport. 1974, 96 pp., ill. $1.95.
- **Diet for Cyclists.** Challenges the accepted notions of proper nutrition for stress with the cyclist's needs uppermost. 1974, 80 pp., ill. $1.95.

For the Nordic Sports Enthusiast:

- **Discover Cross-Country Skiing.** A practical and complete guide to ski touring for beginners. 1974, 52 pp., ill. $1.75.
- **Nordic Skiing Gear: Skis, Poles, Boots and Bindings.** The first complete guide to these vital components. 1974, 60 pp., ill. $1.75.
- **Enjoying Winter Camping.** Concise and complete guide to this new and challenging sport. 1974, 132 pp., ill. $2.50.

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2	1.04	1.28
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5	1.90	2.41
6	2.18	2.78
7	2.47	3.16
8	2.75	3.53
9	3.04	3.91
10	3.33	4.28
11	3.62	4.66
12	3.90	5.03
13	4.19	5.41
14	4.47	5.78
15	4.76	6.16
16	5.04	6.53
17	5.33	6.91
18	5.61	7.28
19	5.90	7.66
20	6.19	8.03
21	6.48	8.41
22	6.76	8.78
23	7.05	9.16
24	7.33	9.53
25	7.62	9.91
26	7.90	10.28

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1 lb.		.50
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5		.82
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7		.98
8		1.06
9		1.14
10		1.22
11		1.30
12		1.38
13		1.46
14		1.54
15		1.62
16		1.70
17		1.78
18		1.86
19		1.94
20		2.02
21		2.10
22		2.18
23		2.26
24		2.34
25		2.42
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1 lbs.	1.25	1.30	12 ...	5.83	7.80
1½ ..	1.54	1.75	13 ...	6.23	8.36
2 ...	1.83	2.20	14 ...	6.63	8.92
2½ ..	2.03	2.48	15 ...	7.03	9.48
3 ...	2.23	2.76	16 ...	7.43	10.04
3½ ..	2.53	3.04	17 ...	7.83	10.60
4 ...	2.63	3.32	18 ...	8.23	11.16
4½ ..	3.83	3.60	19 ...	8.63	11.72
5 ...	3.03	3.88	20 ...	9.03	12.28
6 ...	3.43	4.44	21 ...	9.43	12.84
7 ...	3.83	5.00	22 ...	9.83	13.40
8 ...	4.23	5.56	23 ...	10.23	13.96
9 ...	4.63	6.12	24 ...	20.63	14.52
10 ...	5.03	6.68	25 ...	11.03	15.08
11 ...	5.43	7.24			

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2 ...	.83	1.32	15 ...	2.80	3.85
3 ...	.90	1.51	16 ...	1.88	4.05
4 ...	.98	1.71	17 ...	1.95	4.24
5 ...	1.05	1.90	18 ...	2.03	4.44
6 ...	1.13	2.10	19 ...	2.10	4.63
7 ...	1.20	2.29	20 ...	2.18	4.83
8 ...	1.28	2.49	21 ...	2.25	5.02
9 ...	1.35	2.68	22 ...	2.33	5.22
10 ...	1.43	2.88	23 ...	2.40	5.41
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12 ...	1.58	3.27	25 ...	2.55	5.80

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Not more than 2 pounds	$.25
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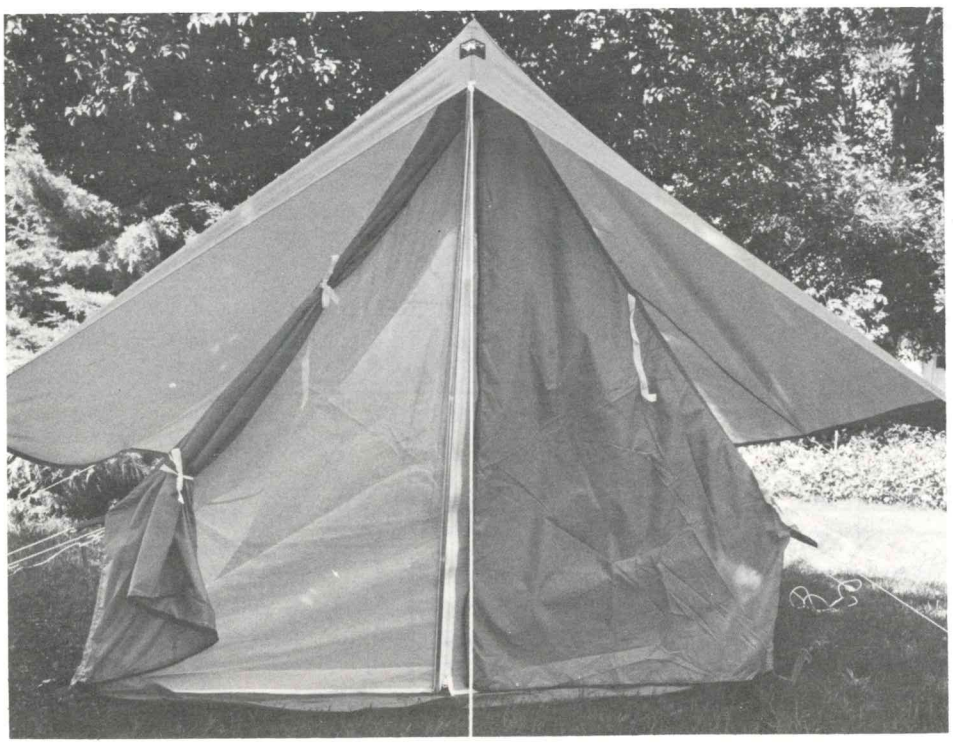
More than 10 pounds	.50

Mountain Products' tents are widely acclaimed. The recent Antarctica expedition up Mount Vinson and other peaks, attributed their success—if not survival, to the strength of Mountain Products' tents. The tents are not only double-needle sewn at the seams, but the stress seams are reinforced with nylon ribbon. Pull out tabs and stake-out tabs also have webbing sewn in with a tacking machine making them almost indestructible. The tent seams are sewn at 8 stitches to the inch. Ripstop nylon is used in the body of all tents. Mountain Products' tents come complete with guy lines, line tighteners, nylon Durapegs, stuff sacks and shockcord connected poles. Nylon zippers are used extensively throughout the tents and all tents are well vented.

• **Storm Tent** — Spacious two-man tent with 2½' front vestibule. Ripstop nylon side panels, waterproof nylon vestibule, floor, rear panel and 6" sidewalls. Large zippered vent in rear. Three piece, shockcorded, aluminum, A-frame poles in front, two piece pole in rear. Mosquito netting door and heavy duty zippers. Tent comes with poles, rain fly, nylon Durapegs, guy lines, line tighteners and stuff sack. 9' X 4½ X 45".

MP-23 . . . . . Wt. 7 lb. . . . . $114.95.



• **Trail Tent and Fly** — A roomy three- or four-man tent designed for family backpacking or general camping. Waterproof nylon floor, sidewalls, rear and front panels. Ripstop nylon body. Sidewalls 18" high. Floor measures 6' wide X 6'6" long. Tent height 5'. Large net-covered rear vent. Nylon zippers on front mosquito netting and front flaps. Snake guard. Shockcorded tent ropes. Weighs 7 lb. 10 oz. including fly, stakes, guy lines and stuff sack. Fly included with tent.

MP-27 . . . . Wt. 8½ lb. . . . . $94.95.

• **Pocket Tent** — Featherweight tent with room for two mummy bags and additional rucksack storage room. Weight 3 lbs. 11 oz. including poles, nylon Durapegs, guy lines, line tighteners and stuff sack. Floor 52" wide in front, tapering to 29" in rear; 7' long. Height: 42" front, 20" rear. Made of ripstop nylon body with waterproof nylon floor extending 6" up the sidewalls. Nylon zippered mosquito netting in door and zippered rear window. Two nylon zippers close front. Lightweight A-frame sectional aluminum shockcorded poles slip into sleeves to support tent front. Short pole supports tent back. Waterproof fly optional.
MP-22-1. . . . Wt. 4¾ lb. . . . . $62.50.

• **Pocket Tent Fly** — Spreads above tent with short extension pole in rear and eight pull-out cords. Made of waterproof nylon. Weighs 1 lb. 9 oz. with pole and 7" nylon Durapegs.
MP-22-2 . . . . Wt. 2¼ lb. . . . . $17.50.

Note: All MPC tents are packed with guy lines, lightweight shockcorded aluminum poles, carrying case, 7" nylon Durapegs, and tent assembly instructions.

Accessories

• **Nylon Backpacker's Tent (Campways)**—This lightweight nylon 2 man tent can fit into the pocket of a packbag. Has tie-down tabs to extend tent walls up to 5 feet wide and 8 feet long.
CW-01 . . . . . Wt. 2¼ lb. . . . . $19.95.

• **Minit Tent (Tube Tent)**—Every camper should have one. Sets up in a minute. Rugged-waterproof poly 8' long. Rope included.
AB-16 . . . . . Wt. 1 lb. . . . . $2.49.

• **Nylon Tarp** — Lightweight and sturdy tarp made of waterproof nylon. All edges are hemmed. Seams are waterproofed. Grommets for tie-down ropes are positioned at each corner and midway on each side. 8' X 10'.
MP-25 . . . . . Wt. 2 lb. . . . . $25.00.

• **Durapeg** — Almost indestructible lightweight molded Cycolac plastic tent peg of one beam construction. Will not splay from pounding.
MP-24 . . . . . Wt. under 2 oz. . . . $.35.

• **Skewer Peg** — A lightweight aluminum 7" tent peg.
MP-26. . . . . Wt. ½ oz. ea. . . . $.20.

• **Steel Skewer Tent Peg—7".**
AB-17 . . . . . Wt. ½ oz. . . . . $.08 ea.

• **Aluminum Tent Peg—9".**
AB-18 . . . . . Wt. ½ oz. . . . $.14 ea.

• **Rip Air Tape**—Designed to repair parkas, tents, sleeping bags, backpacks. Made of an adhesive ripstop nylon. One yard in package. Orange, Red, Blue and Green.
MP-50 . . . . . Wt. ¼ lb. . . . . $.99.

• **Stretch Cord**—A great substitute for ropes. Saves tying and untying; will not loosen in travel. Has sturdy stretch cord with plastic coated hooks on each end. 4 cords in each package.
AB-27. . . 3/8x12". . Wt. ¼ lb. . . $1.99.
AB-28. . . 3/8x18". . Wt. ¼ lb. . . $2.19.
AB-29. . . 3/8x24". . Wt. ¼ lb. . . $2.49.

• **Woodstock Braided Nylon Cord** Ideal all-purpose cord. Suitable for camping, awnings, clothes lines, towlines, boating and many more uses. Will not rot or mildew. Length: 50 feet.

AB-19	**550 Pound Test**	**$1.09.**
AB-20	**1000 Pound Test**	**$2.19.**
AB-21	**1800 Pound Test**	**$3.49.**

• **Mountain Products Strata Pack and Frame** – This comfortable contour frame pack with wrap around padded hip belt. Frame is designed to carry bulk of load on hips instead of shoulders. Pack angle to the back is adjustable at hip pad. Sack is very heavy duty nylon and may be the most waterproof one on the market. Top flap and center zipper opening allow easy access to equipment without removing gear stored on top.

Frame is high quality aluminum with superior mig welded joints–unconditionally guaranteed. Recommended for normal backpacking. Colors: blue or copper.

MP-16-Reg. . Wt. 4¾ lb. . . . . $52.50.
MP-16-Lge. . Wt. 5 lb. . . . . .$57.50.

• **Camp Trails the Horizon**–A special waterproof nylon pack with 5 large contoured pockets with covered nylon zippers. Clevis pin mounting to side of frame (frame not included); tapering of bag for good load balance; extra large capacity; zipper opening to bottom of bag; spreader bar, and large outside pocket on flap for map and minute essentials, nylon ties on flap for storm protection, fits cruiser type frames. Colors: Orange, Forest Green.

Med. 18" x 14½" x 4¾" to 9 Wt. 2 lb.
Lge. 22" x 14½" x 8¼" to 10 Wt. 2¼ lb.
CT-01 . . . . . $37.95.

• **Padded Hip Belt**–Tough waterproof 4½" wide nylon shell over thick padding; quick release buckle on 1½" nylon webbing. Four sizes in Puma Tan color.

42"	Fits up to hip*	5½ oz.
44½"	Fits up to hip*	6 oz.
48½"	Fits up to hip*	6½ oz.
52½"	Fits up to hip*	7 oz.

*Measurement taken two inches below top of pelvis.

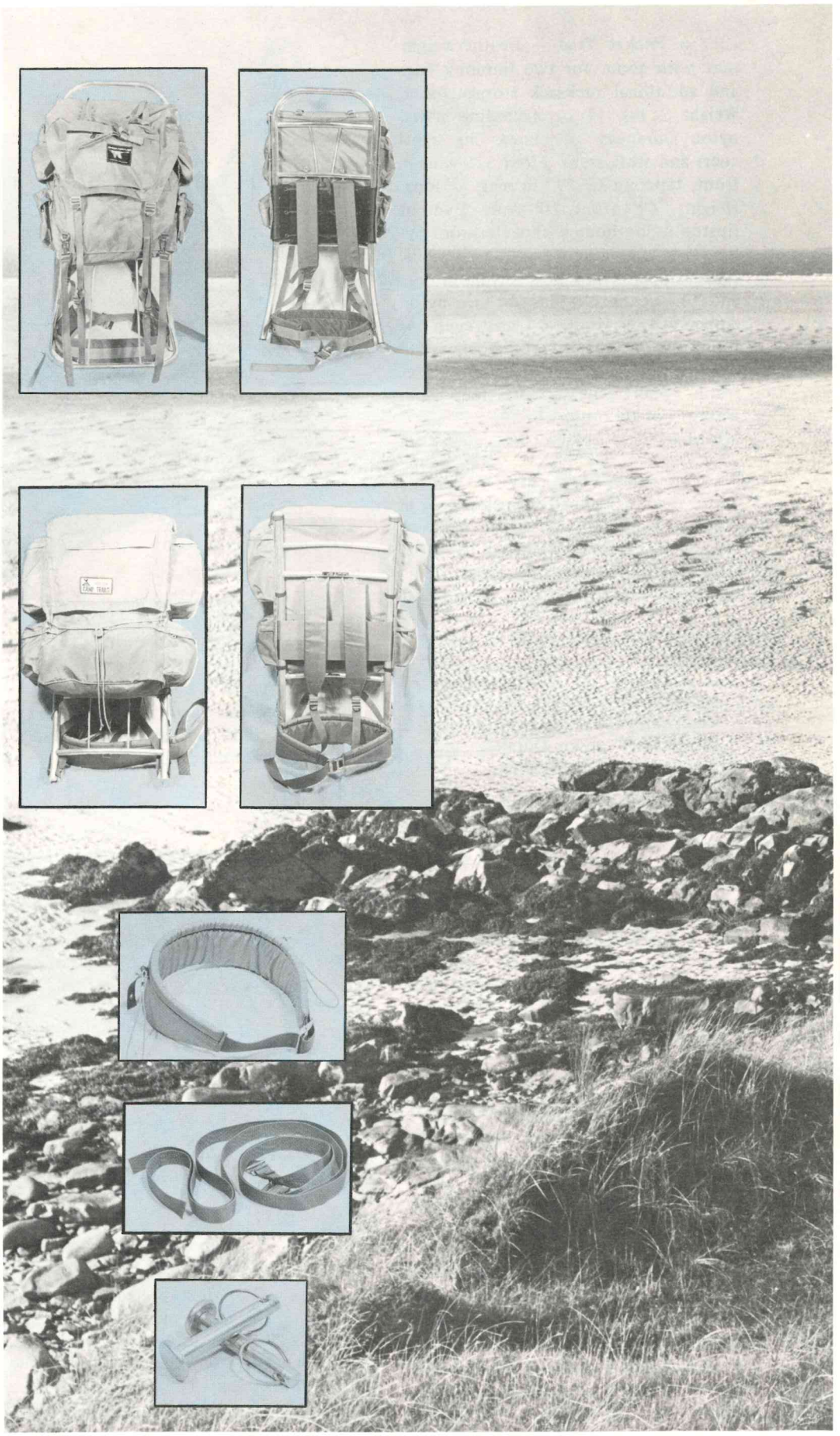
CT-31 . . . . Wt. 1 lb. . . . . $7.99.

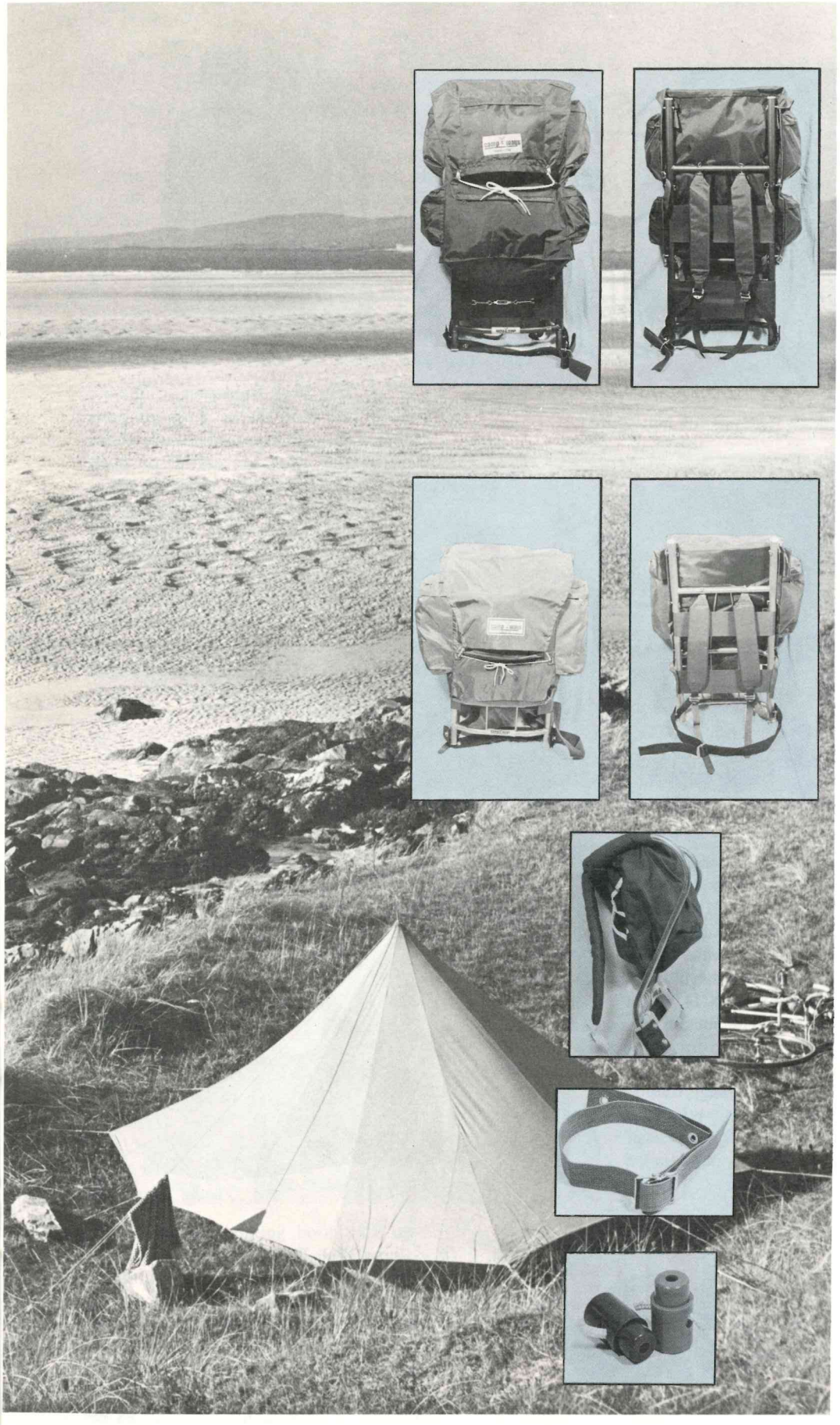
• **Sleeping bag straps**–Unique design permits permanent attachment to pack frames. Tabler buckles for no-slip mounting of stuff bag or bed roll. Constructed of nylon. 44" x 3/4".

CT-30 . . . . . Wt. ¼ lb. . . . . $1.79.

• **Clevis Pin or Pins and Rings**–Used to hold pack on frame. Rings come with pins.

CT-32 . . . . . Wt. ¼ lb. . . . . 10 for 85c





• **Camp Trails Pace-setter Combination**—Trail tested, full size outfit. best in trail tested full size combinations. Many features to make a short or long hike easier. The USA made anodized 1" tubular aluminum frame has 4-3/4" nylon waist. Bands with turnbuckle adjustment, nylon covered polyurethane shoulder straps with nylon webbing. Matching mounted bag is made of water repellent, heavy duty, resin coated oxford nylon. Four large side pockets feature covered nylon zipper. The two main compartments have a spreader bar and a fully covered nylon zipper for front access to the lower compartment. The bag is 22" x 14" x 7" and the frame is 31" x 14-3/8".
CW-06 . . . . . Wt. 4½ lb. . . . . $42.95.

• **Camp Trails Wolverine Combination** – Designed for youth or ladies. Made in the United States, welded 1" anodized tubular aluminum frame with full features; 3½" nylon back bands and turnbuckle adjustment; quick release nylon waist band; nylon covered polyurethane shoulder straps, 27½" x 13". Water repellent oxford nylon bag is designed to include maximum features: Covered nylon zipper, side pockets, top spreadbar, 18" x 13" x 7"; clevis pin mounted to frame.
CW-05 . . . . Wt. 3¾ lb. . . . . $39.95.

• **Gerry Kiddie Pack** – Great to carry infants or toddlers while camping or strolling. Adjustable seat height with storage compartment. Constructed of two-ply 10 oz. nylon, completely washable for convenience. Matching foam padded shoulder straps.
GR-01 . . . . Wt. 3½ lb. . . . . $15.95.

• **The Waistband**—Holds the pack frame from twisting and swaying. Transfers weight load from shoulders to hips. 1 1/2" nylon webbing, quick release buckle. Grommets. Fits up to 42" waist.
CT-29 . . . . . Wt. ½ lb. . . . . $3.49.

• **Drawstring Clamp**—Simple cord release clamp. Push the plunger and spring pressure is released so clamp slides on the cord. Handles cord up to ¼" in diameter. Used for drawstrings on stuff sacks, parkas, sleeping bags.
MP-32 . . . . . Wt. ¼ lb. . . . . $.50.

• **Summit Rucksack**—Excellent all all-around pack for hiking and climbing. Two removable stout stays give back support. Padded nylon shoulder straps. Main compartment approximately 12" X 14½" X 18" with drawstring top. Top flap is double fabric with zipper. Double constructed bottom of nylon and extra heavy vinyl. Two outside zippered pockets are 5½" X 2" X 10". Ice axe carrier. Heavy duty waterproof nylon. Colors: blue, cherry red, copper, orange.
MP-19 . . . . . Wt. 1¼ lb. . . . . $17.50.

• **Tear Drop Rucksack**—Climber's pack in tear drop shape. Two compartments, each with zippered closure under weather flap. Ice axe carrier on back and two accessory strap holders on bottom. Double constructed bottom of nylon and extra heavy vinyl. Designed to carry 15-20 lb. load with foam padded shoulder straps and nylon waist strap. Heavy duty nylon. Measures 18" high with 13½" X 6½" bottom. Colors: blue, cherry red, copper, orange.
MP-20 . . . . Wt. 1¼ lb. . . . . $13.50.

• **Mountain Rucksack**–Basic lightweight pack for fishing, hunting, skiing and hiking. Made of heavy duty waterproof nylon with nylon straps. Shoulder straps and waist belt are fully adjustable. Main compartment measures approximately 5" X 11" X 14" with drawstring top. Map pocket in top flap. Two nylon zippered pouch pockets measure 5" X 3" X 7". Colors: blue, cherry red, copper, orange.
MP-21 . . . . . Wt. 1¼ lb. . . . . $9.95.

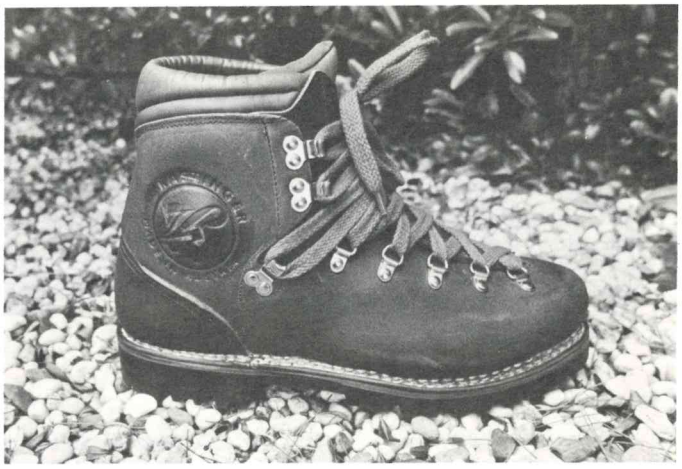
• **Jackal Rucksack**—Day pack for hiking, cycling or school. Strong, heavy-duty waterproof nylon. Heavy web shoulder straps, waist band. Rear pocket with nylon zipper. Double constructed bottom of nylon and extra heavy vinyl. Colors: blue, cherry red, copper, orange.
MP-18 . . . . . Wt. 1 lb. . . . . $8.50.

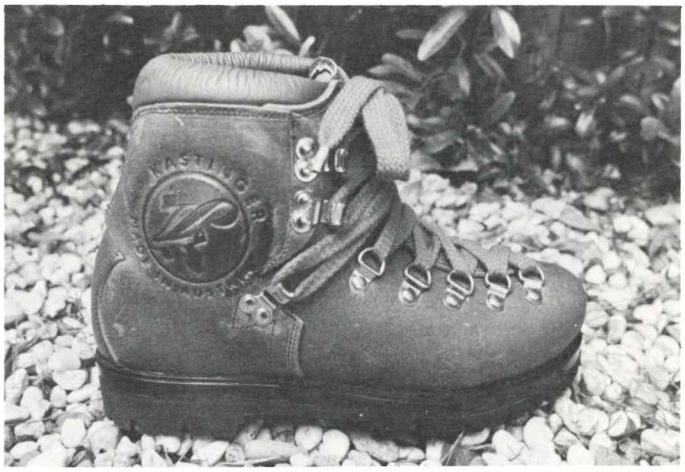
• **Belt Bag**—Designed to carry a lunch and small gear. Worn around the waist and fits in small of back. Strong nylon web belt is adjustable. Made of heavy duty waterproof nylon. Pack measures 14" X 5" X 4" with 9" zipper. Colors: blue, cherry red.
MP-17 . . . . Wt. ¾ lb. . . . . $5.95.

There is nothing that will spoil a hike quicker than a pair of boots that don't fit. To ensure a good fit *you must send an outline of your foot.*

When making your foot tracing, be sure to wear the socks that you plan to wear with the boots you are ordering. Hold the pencil straight up and down and make sure that you trace your whole foot on the paper. Finally write your name on it in case it gets separated from your order.

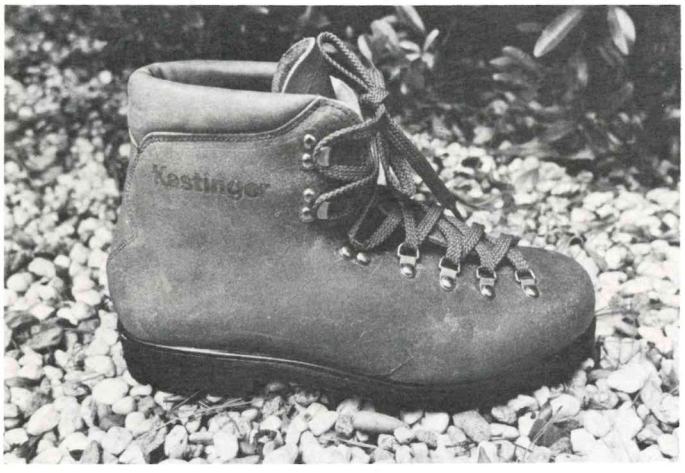
After you recieve your boots, examine the fit very carefully. We suggest that you wear them around the house for awhile to see how they feel. If you wear them outside we cannot take them back. If your boots do not fit, return them to us telling us what is wrong and we will immediately send you another pair.





• **Sella**—A heavy duty mountain boot of reversed Pamir leather. Chrome-leather lining. Soft padded tongue, ankle cuff and ankle cup. Large counter heel. Overlapping tongue. Narrow steel shank between insole and runner for crampon-proof stiffness. Narrow welt with triple-stitch, Vibram-Montagna, yellow-label sole. Sizes: men's 7-13 medium, ladies' 5-9 medium.

KA-13 ..... Wt. 7 lb..... $74.95.



• **Matterhorn**—High quality mountain boot with uppers of reversed neats leather. Hinged heel. Chrome-leather lining with moltopren padded ankle cups, tongue and ankle cuff. Overlapping double tongue. Uppers reinforced for lateral stability. Built-in, strong heel counter. Reinforced toe. Metal shank in sole for torsion control. Vibram security sole attached to uppers with injected liquified, hard PVC. Double-sole stitched welt, water-proofed with PVC. Sizes: men's 7-13 medium & wide, ladies' 5-9 medium.

KA-12 .... 6¾ lb. ..... $59.95.

• **Tofana**—Hiking boot with uppers of reversed neats leather. Chrome-leather lining with Moltopren padded ankle, tongue, and ankle cuff. Metal shank in sole for torsion control. Yellow label Vibram sole with injected molded welt. Sizes: men's 7-13 medium, ladies' 5-9 medium.

KA-10 ..... 4¾ lb. ..... $49.95.

GOLDEN K Kastinger

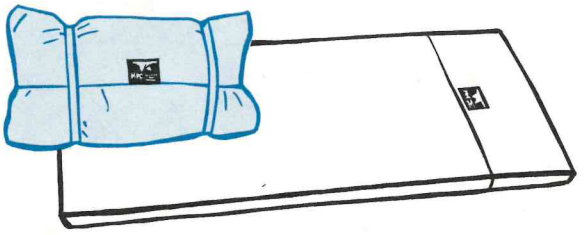
Box 8, Mt. View, CA 94040

• **Continental**—This is a fine economy backpacker mummy bag, goose down insulated in 9" slant box tubes formed with stretch net nylon baffles. Bag is differentially cut of ripstop nylon. The 72" heavy duty two-way nylon zipper is insulated with a large down-filled weather flap. Drawstring closes top into a protective hood. Shoulder width 30", 84" long, and two will zip together. Available in blue only.

MP-13-2. . . Wt. 4½ lb. . . $89.95.
MP-13-2½. . Wt. 4¾ lb. . . $99.95.
MP-13-3. . . Wt. 5¾ lb. . . $109.95.

• **Foam Sleeping Pads**—2 sizes. Lightweight and comfortable. Nothing to inflate. Provides complete insulation from ground. No maintenance. Preferred over an air mattress by outdoorsmen. 1½" polyurethane foam has high density for body support. Covered with waterproof nylon case and rolls compactly into own pillow pocket. Sizes: 22" X 48", 22" X 72".

MP-28-Reg. . Wt. 2¼ lb. . . $11.00.
MP-28-Long. . Wt. 3¼ lb. . . $15.00.



	Loft	Low Temp. Range	Goose Down	Total Wt.	Color
Glacier					
MP-12	9"	-25°	2 lbs.	3 lb. 10 oz.	Copper
Continental					
MP13-2	7"	25°	2 lbs.	3 lbs.10oz.	Blue
MP13-2½	8"	10°	2½ lbs.	4 lbs.2oz.	Blue
MP13-3	9"	0°	3 lbs.	5 lbs.	Blue

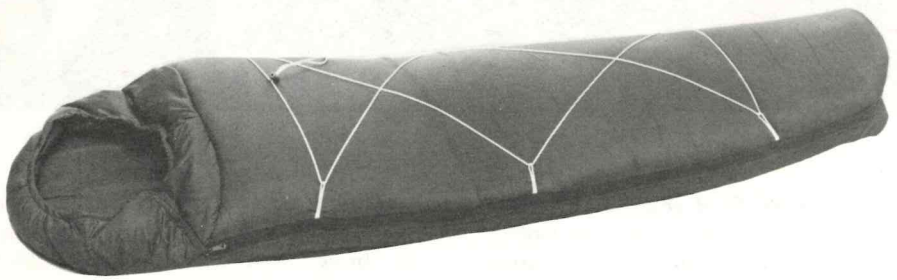
• **Glacier**—This quality bag has been designed for those backpackers who want the maximum amount of warmth without weight or bulk. A sharply tapered mummy bag with very narrow tube construction to keep the down from shifting. To eliminate cold spots in the bag, the Glacier features offset slant box construction and a differentially cut ripstop nylon body. The two-way 70" No. 10 nylon zipper is backed by a down insulated weather strip. This bag is available with the zipper on either right or left hand side for two bag joining. Drawstring and clamp form protective hood. Standard size 30" wide at shoulders and 87" long for individual to 6'2" (longer models available on special order). Includes stuff sack.

MP-12. . . Wt. 4½ lb. . . $109.95.

• **Syndown Twin Sleeper**—Although down is the most effective insulator available to backpackers many have found that dacron Fiberfill II is nearly as effective and much more durable. The Syndown was specifically designed with the backpacker in mind. It is a lightweight easily compacted bag differentially cut with a 72" two-way zipper. Shoulder width is 30"; 84" in length with a large foot piece to cut down on constriction around the feet. Includes stuff sack.

MP-14-Reg. . . .Wt. 6 lb. . . $62.50.
MP-14-Long . .Wt. 6½ lb. . . . . $67.50.

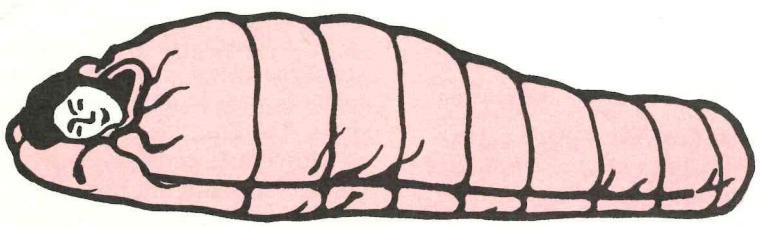
	Loft	Low Temp. Range	Fiberfill II	Total Wt.	Price
MP-14R Regular	8"	15°	3½ lbs.	5 lbs. 3oz.	$62.50.
MP-14L Long	8"	15°	4 lbs.	5 lbs.12oz.	$67.50.



• **Airlite Foam**—Here it is, the bag for canoists and kayakers, a bag that will keep you warm even when it's wet. This lightweight polyurethane bag is very warm. It is 1¼" thick for cold weather and no underpadding is necessary. This bag breathes very well and has a nylon shell. The zipper is a 64" heavy duty nylon with two-way pull. There is a down collar which closes around the neck with hidden drawstrings to snug the bag up around the body. The Airlite foam bag compresses tightly when rolled and there is no insulation leakage if punctured.

MP-15-Short . Wt. 5 lb. . . . . $57.45.
MP-15-Reg. . . Wt. 5¼ lb. . . . . $59.95.
MP-15-Long . Wt. 5½ lb. . . . . $64.95.

	Style	Length	Width	Total Weight	Price
MP15-S	Short	5'8"	28"	4 lbs.4oz.	$57.45.
MP15-R	Regular	6'2"	32"	4 lbs.9oz.	$59.95.
MP15-L	Long	6'8"	32"	4 lbs.14oz.	$64.95.



• **Sportsman Space Blanket**—Uses for this "must have" blanket are unlimited. Some ideas are camping, ground cloth, poncho, wind-breaker, boat blanket, radar reflector. Each blanket comes with a reusable carrying pouch and folds to a compact 5½" x 8½". Has bound edges which are reinforced, grommeted corners so can be tied down. 56" X 84".

AB-15. . . Wt. 1 lb. . . . $8.99.

• **Stuff Bags**—Comes in various sizes for sleeping bag or other gear. Construction of water proof urethane coated nylon material; nylon draw cord with cord lock; grommets and loops to accept shoulder straps for conversion to day pack. Two sizes: 21"x10" diameter, 5¼ oz.; 21"x11" diameter, 5½ oz.

CT-35. . . Wt. ¾ lb. . . $6.49.

• **Mountain Products Stuff Sack**—Waterproof carrying case for sleeping bags, garments and miscellaneous gear. Made of coated nylon sewn with strong nylon thread. Specially constructed square bottoms for greater strength and capacity.

MP51 (13"x15") Wt. ¾ lb. . . $2.50.
MP52 (15"x20") Wt. ¾ lb. . . $3.50.
MP53 (17"x20") Wt. ¾ lb. . . $4.00.

• **Lightweight Safari Mattress.** Designed with the backpacker in mind. Strong rip stop nylon covering with rustproof snaps. Features 3 replaceable vinyl tubes per unit. 30" x 75".

CV-11. . . . Wt. 2¾ lb. . . $19.95.

(A) **Down Cardigan**—This lightweight down jacket was designed with the backpacker and sportsman in mind. Just right for those cool evenings and cooler mornings. It is made of fine quality Ripstop nylon and filled with high quality goose down. The front closure is a sturdy nylon zipper and the down collar fits snugly around the neck. Wide elastic cuffs hug the wrists and the jacket has two deep slash pockets. Colors: blue, green, red & orange. Sizes: S, M, L, XL.
MP-01-M. . . . Wt. 1½ lb. . . . . $38.50.

• **Down Cardigan**—Same as MP-01-M, for women & children. Colors: red, blue & carbon brown. Sizes: S, M, L.
MP-01-W. . . Wt. 1¼ lb. . . . . $36.50.

(B) **Down Vest**—A very comfortable garment which can be worn as an outer garment or under a shell parka. High quality goose down and ripstop nylon is used throughout. This vest has a nylon zippered front, down collar and two slash pockets. Extra long in back for warmth. Colors: Blue, Green, Tan, Orange and Red. Sizes: S, M, L, XL.
MP-04. . . . . Wt. 1 lb. . . . . $26.50.

(C) **Ledge Coat**—For some sportspeople the ripstop nylon does not offer the durability they need. For these people this medium weight goose down parka has an outer shell of 60-40 cloth* with an inner liner of ripstop nylon. The Ledge Coat has a high down filled collar and snap front closure over nylon zipper. Elastic cuffs with snaps and double pockets with a Velcro closure on the cargo pocket help make this a best buy for rugged use. Colors: Red, Navy blue. Sizes: S, M, L, XL.
MP-05. . . . . Wt. 2½ lb. . . . . $57.50.

*A durable blend of cotton and Dacron

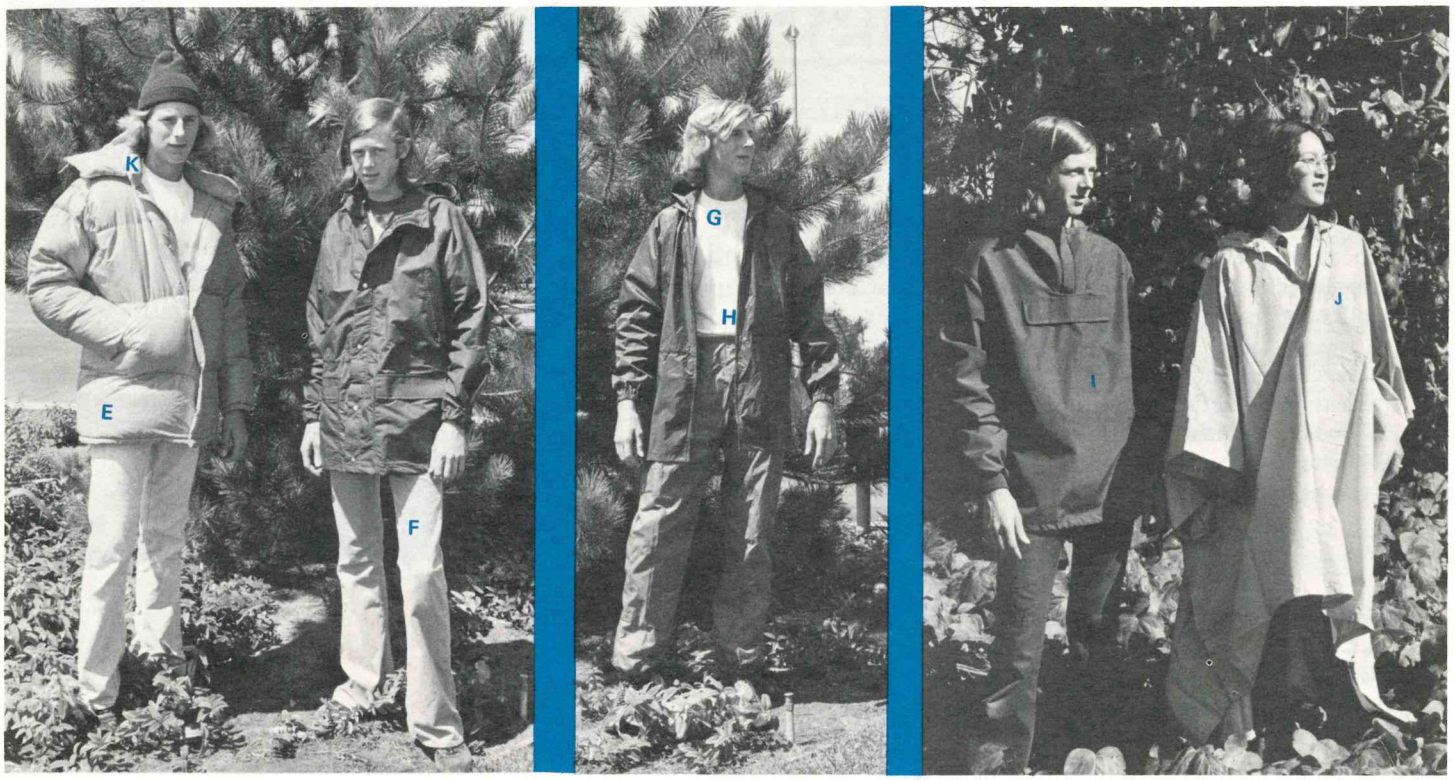
• **Ledge Coat Hood**—Goose down insulated. Attaches with four snaps, velcro chin flaps with drawstring. Colors: Red, Navy blue.
MP-05-H. . . . Wt. ¼ lb. . . . . $9.95.

(D) **The Wall Coat**—Similar to the Down Cardigan but filled with more prime goose down for that colder weather. The same high quality ripstop nylon is used throughout and the high down collar has an optional down filled hood. The coat has a snap closure over a heavy nylon zipper and elastic cuffs with snap adjustment. Down filled pockets & drawstring at the hem make this an ideal buy for the skier. Colors: carbon brown, blue & red. Sizes: S, M, L, XL.
MP-02. . . . . Wt. 2 lb. . . . . $54.95.

• **Wall Coat Hood**—Ripstop nylon fabric, goose down insulated. Snaps to back of coat collar. Under chin velcro closure. Colors: Carbon brown, Blue & Red.
MP-02-H . . . . Wt. ¼ lb. . . . . $9.95.

(E) **Frosty**—This high quality parka was designed for extreme cold weather conditions found in mountaineering and skiing. The Frosty is specially constructed with a differential cut and of course the highest quality ripstop nylon is used. A two way zipper with snap overflap extends up to an insulated goose down collar. The down insulated pockets have a velcro closure and the Frosty has an optional hood. Colors: Blue, Orange, Red. Sizes: S, M, L, XL.
MP-03. . . . . Wt. 3 lb. . . . . $74.95.

• **Goose Down Hood**—Stiffened brim, velcro chin closure with drawstring.
MP-03-H. . . . Wt. ¼ lb. . . . . $9.95.



(F) **Super Parka**—No expense has been spared to give this parka features always wanted but never found. The Super Parka is not only wind and weatherproof but also durable being made of of 60-40 cloth. The upper body is lined with the same material while the lower body is lined with ripstop nylon. The front closure is a heavy two way zipper with a snap-over weatherproof flap. The attached hood has a stiffened brim, velcro closure tab, and drawstring face opening. Comfortable raglan sleeves have elastic cuffs with velcro fasteners. There's a drawstring at the waist and four pockets: two zippered slash pockets and two deep cargo pockets. Colors: Orange, Tan, Navy. Sizes: S, M, L, XL.
MP-09..... Wt. 2 lb..... $39.95.

Size Chart				
	S	M	L	XL
Men	36-38	40-42	44-46	48-50
Women	8-10	12-14	16-18	

(G) **Backpacker's Parka**—This all-purpose hooded parka was designed with many features for the backpacker. It is made of windproof and waterproof coated nylon, making it virtually weather proof. Draw strings adjust the head's opening and the waist of the coat. Parka has elastic cuffs and two zippered slash pockets. Colors: Tan, Red, Blue, Orange, Green. Sizes: S, M, L. XL.
MP-06..... Wt. 1¼ lb..... $28.50.

• **Rock Parka**—Same as MP-06 except this parka is made of 60-40 cloth, a durable blend of cotton and dacron. Colors: Orange, Tan and Navy.
MP-07..... Wt. 1½ lb..... $32.50.

(H) **Windpants**—These wind and waterproof overpants are made of durable coated nylon. Each bottom leg has a 24" nylon zipper so that pants can be pulled over boots. There are elastic cuffs and an elastic waistband with a drawstring adjustment and two deep cargo pockets. Zippered fly. Colors: Tan, Red, Orange, Blue and Green. Sizes: S, M, L, XL.
MP-11..... Wt. ¾ lb..... $24.95.

(I) **Alpine Parka**—An ideal pullover parka for skiing and backpacking made out of durable 60-40 cloth. The Alpine Parka has a short front zipper and a pouch pocket for odds and ends. Nylon knit cuffs, drawstring at the bottom and inner lining of ripstop nylon all help make for a windproof garment. Colors: Orange, Red, Tan, and Navy. Sizes: S, M, L, XL.
MP-08..... Wt. 1½ lb..... $32.50.

(J) **Poncho**—This fine all-purpose garment is much more than just a poncho—and maybe just what you've been looking for. Makes an excellent foul weather shelter, can serve as a ground cover, tarp, shelter tent, and poncho. Neck opens with velcro fastener and has a drawstring on the hood. Several velcro closures on the side help form sleeves. Corner grommets for the down ropes when used as a tarp or tent. Assorted colors. Measures 4'6" X 8' 6".
MP-10.....Wt. 1¼ lb..... $24.95.

(K) **Watch Caps**—All around wool cap. Ideal for skiing, backpacking, strolling on the beach.
CT-35..... Wt. ¼ lb..... $1.95.

MOUNTAIN HOUSE
FREEZE DRY FOODS

Mountain House and Tea Kettle foods are prepared by Oregon Freeze Dried Foods, Inc. Their basic policy is to produce high quality freeze dried food products in the cleanest, most modern and efficient manufacturing plant possible today. Their facilities are USDA inspected and no product leaves the plant until the quality control laboratory has checked for wholesomeness and rich flavor. Years of manufacturing a variety of products to meet strict government standards has helped create today's quality recreational foods.

We allow a 5% discount on orders of $40.00 or more. Allow six weeks for quantity orders. **Wt. ¼ lb. . . . . 2 packages.**

MAIN COURSE ENTREES

		Net Wt. Oz.	Servings	Price
MH01	Beef Stew	3.75	2-8 oz. Serv.	$2.10
MH02	Chicken Stew	3.60	2-8 oz. Serv.	2.10
MH03	Beef with Rice	4.80	2-8 oz. Serv.	2.00
MH04	Chili with Beans	5.50	2-8 oz. Serv.	1.95
MH05	Rice & Chicken	4.80	2-8 oz. Serv.	1.50
MH06	Chicken Pilaf	4.75	2-8 oz. Serv.	1.95
MH07	Vegetable Beef Stew	3.40	2-8 oz. Serv.	1.65
MH08	Beef Stroganoff	3.60	2-8 oz. Serv.	1.50
MH09	Noodles & Chicken	4.00	2-8 oz. Serv.	1.50

LUNCHEON ENTREES

		Net Wt. Oz.	Servings	Price
MH11	Chicken Salad	2.75	4 sandwiches	$2.20
MH12	Tuna Salad	2.75	4 sandwiches	1.70
MH13	Cottage Cheese	2.10	10 oz.	1.45

BREAKFAST COURSES

		Net Wt. Oz.	Servings	Price
MH14	Cheese Omelette	2.40	Serves 2	$1.70
MH15	Mexican Omelette	2.90	Serves 2	1.70
MH16	Eggs w/Imt. Bacon Bits	2.20	Serves 2	1.70
MH17	Eggs with Butter	2.20	Serves 2	1.70

MEATS

		Net Wt. Oz.	Servings	Price
MH18	Beef-Diced, Cooked	2.20	Serves 2	$ 2.85
MH19	Sausage Patties, Cooked	2.30	Serves 2	2.55
MH20	Beef Jerky (not freeze dried)	2.00		2.20
MH21	Beef Patties (raw)	3.40	4 Patties	3.10

VEGETABLES

		Net Wt. Oz.	Servings	Price
MH22	Peas	1.80	Serves 3-4	$.95
MH23	Green Beans	0.50	Serves 3-4	.90
MH24	Corn	2.00	Serves 3-4	.95

FRUIT

		Net Wt. Oz.	Servings	Price
MH25	Strawberries	1.00	Serves 2	$1.80
MH26	Peaches	1.00	Serves 2	1.40
MH27	Pears	1.00	Serves 2	1.50

SNACKS AND OTHER ITEMS

		Net Wt. Oz.	Servings	Price
MH28	Ice Cream – Van.	2.50		$1.35
MH29	Ice Cream – Choc.	2.50		1.35
MH30	Ice Cream – Str.	2.50		1.35
MH31	Rasp. Apple Crunch	1.80		1.25

BEVERAGES

		Net Wt. Oz.	Servings	Price
MH32	Orange Drink	3.00	Serves 4	$.40
MH33	Lemonade	3.00	Serves 4	.40
MH34	Imitation Fruit Punch	3.00	Serves 4	.40

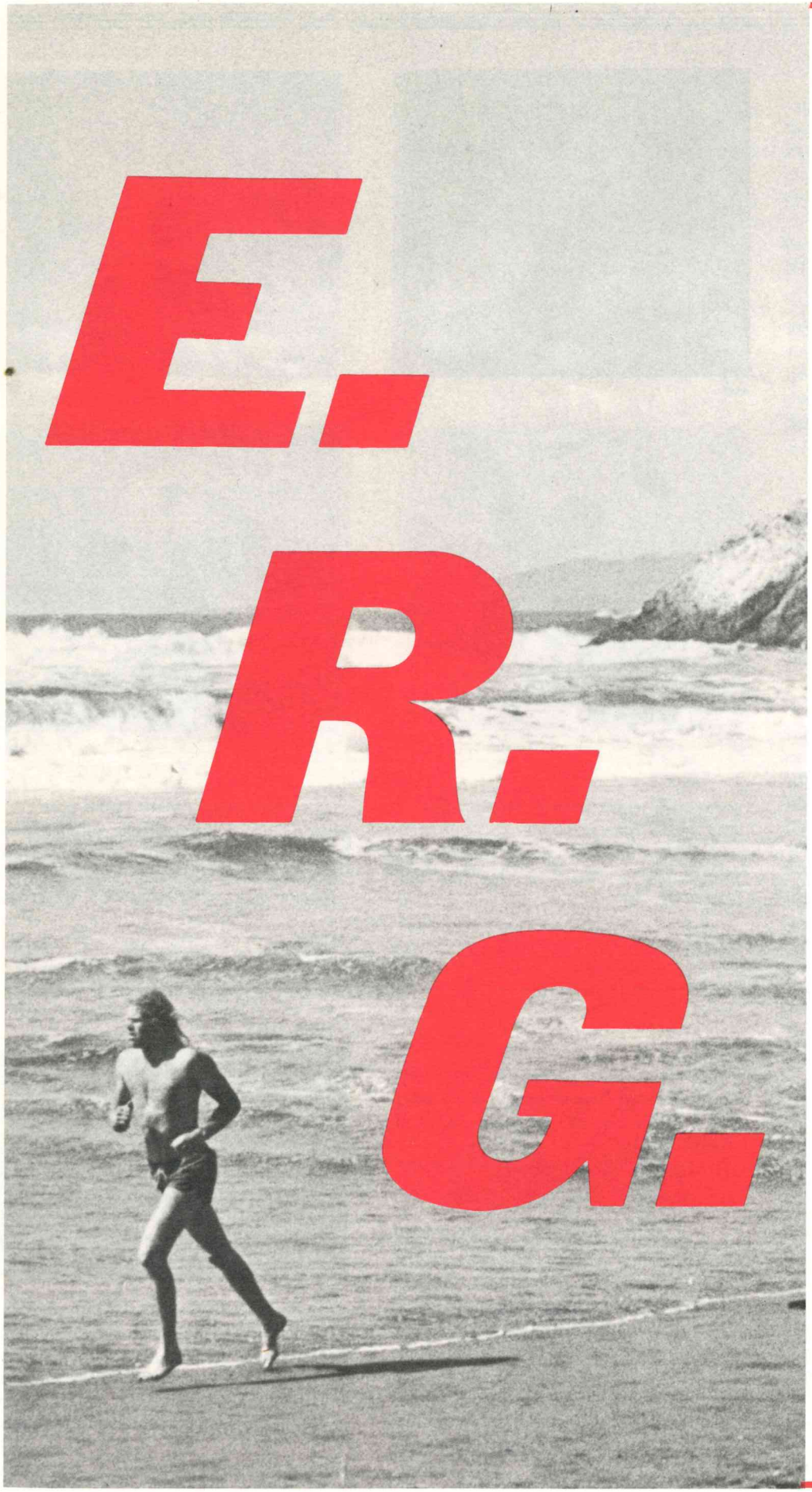
Tea Kettle foods

INDIVIDUAL LUNCHEON ENTREES

		Net Wt. Oz.	Servings	Price
MH36	Chunk Chicken/Rice & Carrots	1.3	Single serv.	.80
MH37	Beef Almondine/Vegetables & Macaroni	1.2	Single serv.	.80
MH38	Turkey Tetrazzini/ Asparagus	1.0	Single serv.	.80

LARGE ENTREES

		Net Wt. Oz.	Servings	Price
MH39	Chunk Chicken	3.7	2-8 oz. Serv.	$1.80
MH40	Beef Almondine	3.3	2-8 oz. Serv.	1.80
MH41	Tuna a la Neptune	3.6	2-8 oz. Serv.	1.80
MH42	Turkey Tetrazzini	3.2	2-8 oz. Serv.	1.80



No Matter What

No matter what your sport—bicycling, backpacking, running, football, tennis or whatever—you need E.R.G. Because its exclusive blend of electrolytes with glucose replaces what the body loses during vigorous exercise, E.R.G. energizes you almost immediately.

E.R.G. was developed by an active athlete and professional chemist especially for use by athletes and other vigorous people. It's since proven to be the only truly effective body fluid replacement drink on the market.

E.R.G. comes as dry crystals, ready to be mixed instantly. It's the perfect active sportsperson's drink. Just carry it in your pack or pocket, and it's ready for use whenever a quick pickup is needed.

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Sample Packet Wt. 1 lb	(3 pkg.*)	$1.85.
Regular Box Wt. 2¾ lb	(10 pkg.)	$5.95.
Standard Case Wt. 6 lb	(24 pkg.)	$14.15.
Three Cases Postage Free	(72 pkg.)	$41.50.

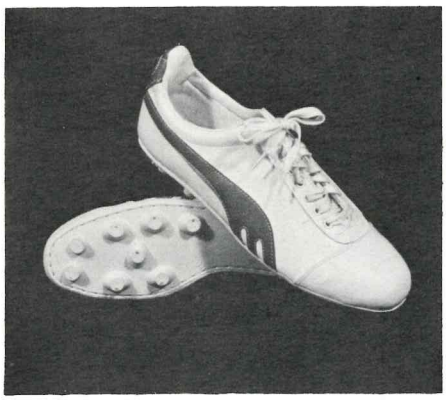
*Each package makes ½ gallon drink

Ⓐ **Gotham Soccer Shoe**—Available in either black or white vinyl. The black model is trimmed with white and the white model in blue. Special features include moulded tractor grip sole, cushion sock lining, and foam padded ankle and Achilles tendon protector. Boys size 13 through adult size 11.
GM-01..... **Wt. 2 lbs**..... **$9.95.**

Ⓑ **adidas Brazil**—A reasonably priced shoe designed for soccer or Lacrosse. It has black uppers and white stripes and features a white injection molded, multicleated sole and a cushion insole. Sizes: 3½-12.
AD-29..... **Wt. 2 lb**..... **$12.95.**

Ⓒ **adidas Junior**—A low priced adidas shoe designed for the young soccer player. The uppers are made of rugged nylon web with a reinforced heel counter and broad toe protection. The shoe has a well cushioned heel area and features an extremely durable, wear resistant multi-cleated rubber sole. Sizes: 2-8½.
AD-27..... **Wt. 2 lb**..... **$9.95.**

Ⓓ **Canada**—A superb soccer shoe featuring black leather uppers with white stripes and a reinforced heel counter. The shoe has a cushion insole and is well padded around the ankle and achilles tendon area. The white rubber sole is topped off by 13 long wearing cleats on each shoe. Sizes: 6-13.
CN-01..... **Wt. 2¼ lbs**..... **$13.95.**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Soccer Shoes

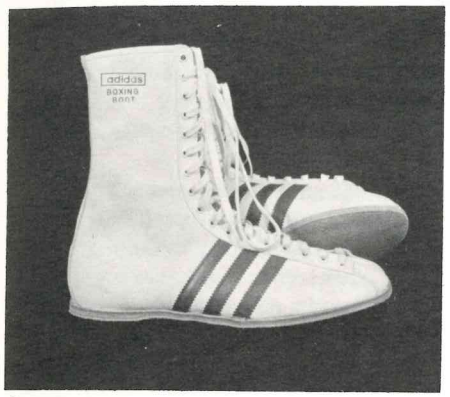
Basketball

• **adidas Americana**—The official shoe of the American Basketball Association. A great new basketball shoe trimmed in red, white and blue. Ventilated nylon uppers that give long wear. Special padding for protection of heel and Achilles tendon. Vulcanized gum rubber sole gives great traction. Heel area features heavy duty ribbing and a new, softer lining. A high-quality, shock absorbing sole. Sizes 5-14.
AD30..... **Wt. 2½ lbs**..... **$18.95.**

• **adidas Americana Hi-Top**—Same features as the Americana for those who prefer the feel and look of a high top model. Sizes 5-14.
AD31..... **Wt. 2½ lbs**..... **$19.95.**

• **adidas Superstar**—An amazingly light leather basketball shoe worn by the best professional and college players. The soft white leather uppers form to your feet for a custom fit after a few practice sessions. An adjustable orthopedic arch support. Rugged chrome leather insole simply will not be destroyed. New flexible toe cap. Special vamp lining for extra strength. Sizes 5-14.
AD32..... **Wt. 2 lb**..... **$24.95.**

• **Nike Bruin Blue-Lo-cut**—A popular basketball shoe with a high quality suede upper. Padded ankle cushion. Polyurethane tongue. Soft terry cloth innersole and traditional shell outersole, USA blue with white stripe. Sizes 6-13.
NK04..... **Wt. 2½ lbs**.... **$22.90.**



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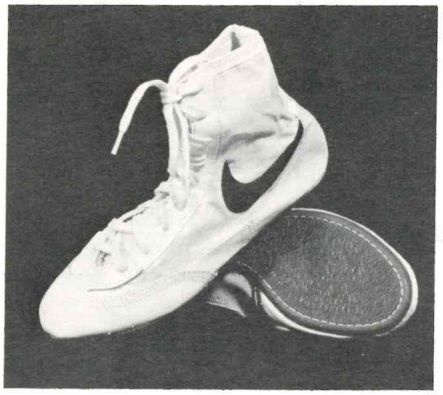

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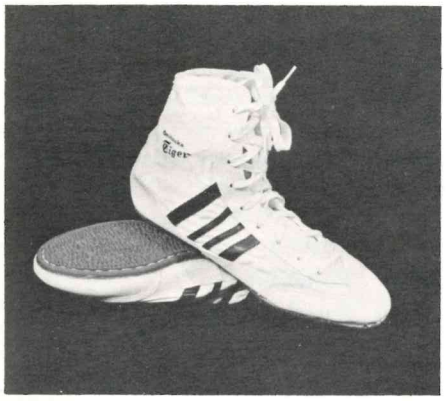

C

D

• **adidas Elite**—A newly developed sensationally lightweight boxing boot. Breathing nylon uppers and gripping rubber sole made the shoe an immediate success at the Games in Munich. Sizes: 6-13.
AD22. . . . . Wt. 2¼ lbs. . . . . $27.95.

(A) **adidas Boxing Boot**—A tremendous boxing shoe favored by World Champions. Uppers are of white Adicalf with a durable chrome leather sole that will not slip. Padded tongue. White with red stripes. Sizes 6-13.
AD-21. . . . . Wt. 3¼ lbs. . . . . $49.95.

(B) **Nike "Greco" Wrestling Shoe**—Fully foam padded nylon uppers for the maximum in comfort and protection. Patented SPENCO innersole and sponge arch support for that extra margin of comfort and support. Built in heel lift to keep your weight forward on your toes. Sizes: 6-13.
NK-05. . . . . Wt. 1½ lb. . . . . $14.95.

• **adidas Hercules**—The fabulous low-priced wrestling shoe with the very popular nylon upper. Traditional adidas quality and fit adds to your comfort and performance. Available in white or black. Sizes: 5-13.
AD-23. . . . . Wt. 1½ lbs. . . . . $13.95.

(C) **Tiger Wrestling Shoe**—Tiger's world famous nylon wrestling shoe featuring the four in one sole. Nylon fabric reinforced with vinylon and leather with Tiger's distinct wrestling four stripes. Sizes: 6-13.
TG-50. . . . . Wt. 1½ lbs. . . . . $13.95.

(D) **adidas Weightlifter Boots**—A sensational shoe developed with the cooperation of World Champion weight lifters. Uppers of strong but soft oxhide. Special protective padding for heel and achilles tendon. Inner construction allows for the addition of special insoles. Heel and sole design insures ultimate balance and proper hold. Sizes: 6-13. Special order only—Allow 3 weeks.
AD26. . . . . Wt. 3½ lbs. . . . . $58.95.

• **adidas Smash**—Sturdy canvas shoe designed for handball, volleyball, badminton, squash and racketball players. It features a velour toe cap, gum rubber sole, foam rubber ankle padding and a fully washable insole. Sizes 5-13.
AD25. . . . . Wt. 2 lbs. . . . . $20.95.

• **Nike Budapest '71**—A volleyball shoe featuring a neutral gum rubber sole with a deep cut weave pattern on a rounded last allowing players to dive for impossible shots. A quality upper of lightweight suede in USA blue with padded ankle cushion. Sizes 6-13.
NK09. . . . . Wt. 2 lb. . . . . $22.95.

• **Tiger Rotation 72**—World famous volleyball shoe that is also popular with badminton, squash and handball players. Rubber foxing binds soles to uppers for added support and strength. Nylon mesh uppers and canvas liners for added comfort. Leather reinforced toe protects from toe drag. Full cushion sole and arch support. Sizes 6-13.
TG07. . . . . Wt. 2 lb. . . . . $13.95.

• **adidas Fencing Shoe**—Nylon net uppers and a soft breathable ventilated lining. Special protective padding for heel and achilles tendon. Swept-up sole around heel and toe piece. Additional toe, ball and heel protection. Special profile sole for extremely secure foothold and grip. Sizes 4-13. Special order only—Allow extra three weeks.
AD37. . . . . Wt. 2 lbs. . . . . $22.95.

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Starting Line Sports, the active sportsperson's store, features athletic shoes and equipment for running and backpacking. Our complete stock of fairly priced equipment is highlighted by one of the widest selections of running shoes found anywhere: Tiger, adidas, Puma, Lydiard, Brooks, New Balance, Nike and Bob Wolf.

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Your new Starting Line Sports Catalog has been designed to make your running and backpacking shopping convenient for you. We are anxious to serve your needs.

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100 MILES: THE UPPER LIMIT?

by Rick Riley

Rick Riley was national record holder in the two-mile and a member of the US international team while still in high school. He ran a sub-four-minute mile in college at Washington State.

It has not been so long ago that the world learned of Arthur Lydiard's "revolutionary" 100-miles-a-week training. Since that time, early 1960s, distance records have fallen wholesale. Lydiard, of course, could not accept all the credit for this. His methods, however, made the running world aware that the average athlete could run long distances without "burning himself out."

Some runners naturally assumed that Lydiard was saying "more is better." By 1970, a few hardy individuals were training up to *200* miles a week. These super-motivated souls, led by Dave Bedford, Derek Clayton and Juha Vaatainen, trained at this mileage for extended periods. The inevitable soon occurred. They broke records, and in the case of Vaatainen scored big victories. But the price of victory and records was injuries en masse.

They misread Lydiard, who had written in *Run to the Top*, "The key to my conditioning training is 100 miles a week. *No runner, training either for the track or the marathon, should run more than that distance.* That would cause continued fatigue instead of steady acceleration of ability. When you can run a hundred miles a week comfortably, the progressive subsequent improvement is not secured by running greater distances, but by aiming to run the same distance a week faster. The stamina already established will enable you to do it without a great increase in effort."

Lydiard did not hit upon these conclusions at random. He used himself as a guinea pig to test his theories. Too many, too late have realized the validity of his findings.

In the past 10 years, I have learned to appreciate Lydiard's wisdom. There seems to be a point where each individual begins to break down. I can comfortably put in 90-100 miles a week without strain. If I up it to 115 or more, low-grade problems result: constant soreness, colds and ultimately sickness or injury.

This lesson was learned the hard way. As a college freshman, I tried to duplicate and even increase the training I had done in high school. It seemed as though I had unlimited opportunities to train as a prep. I slept 11 hours a night and sneaked in another hour or so in class. College was vastly different. I had less time to sleep. The food was different. The atmosphere was different. It took me two long years to adjust.

My roommate at the time was Gerry Lindgren. It was the peak of Gerry's college career, evidence by his 12:53 three-mile. Lindgren did not run the incredible mileages that he achieved in high school. Rather, he increased the intensity of his training. Many people will find this difficult to believe, but Lindgren did not run much over 60 miles a week in college. I know. I trained with him. The longest run he took was a 15-miler on Sunday morning. Early in the week, he would run a 10-miler in 51 minutes or better, sprinting a three-fourths-mile section. Occasionally, he would take a day off. He studied hard and led an active social life. He also trained hard, but in the proper amounts.

Lindgren had established his endurance base some three years earlier and he spent a great deal of his college time perfecting his racing tactics. He practiced racing rather than putting in 20 quarters for the sake of running 20 quarters.

I learned from Lindgren and other world-class athletes the proper combination of marathon, fartlek and interval training. Indeed, I am still learning.

It seems that the remarkable results of New Zealanders John Walker and Rodney Dixon, of the Finns and Rick Wolhuter have come from putting together the correct formula. It is apparent that runners who possess speed are moving up to the longer distances.

Lydiard often commented that there were many runners in the world who could run a 46-second quarter-mile, but very few could put two 52-second quarter-miles back to back because they lacked endurance. Walker and Wolhuter are examples of runners who have used their good quarter-mile speed over distances up to 3000 meters. Both are endurance-type half-milers.

My good friend and teammate while at Washington State, Art Sandison, came to college with a good half-mile (1:52.4) achieved on a modest high school training program. He possessed good speed but his real forte, being built on Peter Snell lines, was his strength. He did not like the long hard runs but he attacked each one. He would, as coach Jack Mooberry put it, "Run until he puked." The grinding runs over Palouse Hills paid off. Art ran 1:46.1 for 880 yards. He was second in the 1969 NCAA, third in 1970. He ran in four AAU finals and placed in three. In 1971, he was the Pan-American Games silver medalist.

Sandison never exceeded 80 miles per week in training. He ran hard over-distances in the winter and then sharpened his speed in the spring. His marathon training, his base of endurance, was the key to his success.

Once I figured this formula out for myself, I ran my long hard miles when it counted—in the fall, winter and early spring. Summer was the time to race and reap the fruits of all the hard work. I never exceeded 95 miles as an undergraduate. But I achieved consistency in my training, I believed in it, and if I may say so, ran pretty well.

When I would plan to run 10 miles I'd run hard, say, 52 minutes. My easy days were very easy. I did this type of training during the fall of 1971 and winter of 1972, mixing in intervals of 1320 yards to two miles, and later some moderately paced quarters. Indoors, I recorded a 4:01 mile and my average for 400 sessions was 64 seconds—done on a grass track in flats. I finished the 4:01 with a 56 last quarter. I didn't lack speed.

Then, foolishly, I ran a session of 60 x 90 yards on a hard surface. Nearly crippled with a bad arch, I convalesced for six months. Those sprints, and the resulting injury, ruined the Olympic year for me, a year that promised to be my best ever.

What conclusions do I draw? I personally believe in more long runs and less interval training. I believe in the merits of 100 miles a week, without exceeding it. Sure, you can get by on 75 or 80, and the athlete who is injury-prone is wise to be just a little under-trained. The records and gold medals of the future will go to the runner who is not only strongest and fastest, but also smartest. He will plan his training wisely, and he won't exceed his limitations. He'll probably find as Arthur Lydiard did, and I have, that 100 miles a week is a good place to stop. •

AGE-GROUP RECORD, JUST FOR FUN

by Jim McFadden

It was a big summer for Mike Diment of Des Moines, Iowa. He became the "Mile King" of the pre-high school running set. Mike won the National RRC Postal Age-Group mile (ages 12-13) in June. In August he won the national AAU 12-13 championship while setting an American age-13 record of 4:38.2. So with still another year before he enters high school, Mike sits momentarily at the top of his age-group in American track's most popular event.

You might expect this promising youngster to be grinding out 80-100-mile training weeks, with visions of four-minute miles somewhere in his future. Wrong! Mike is taking it easy for a while. He feels he has reached his limits for this year.

In this age of super-dedicated young track stars, Mike is different. His wins and records have not been religiously strived for, but are by-products of a "run-for-fun" approach.

Mike's career has been closely linked to his father's. Dr. Merle Diment, now 41, is the top Masters miler in Iowa. Up to about six years ago, Dr. Diment had never run. Then he became concerned about approaching middle-age, his heart and overweight. He prescribed for himself and the rest of the family a few miles of jogging every day. Within a year, he had advanced to a level where he entered local AAU races. Not long afterward, seven-year-old Mike followed suit. The father and son pair soon became a familiar sight at Iowa road races, striding along at the back of the pack, enjoying whatever minor successes that came their way.

With time, the pair slowly improved and the training run became part of the pattern of daily life. Dr. Diment is a man of balance, however, and their weekly training load levelled off at an average of around 40 miles per week—although they seldom kept track.

As the elder Diment neared age 40 and Masters competition, he continued his regular training routine, but started to focus his racing more toward the track distances. So did Mike. Dr. Diment was soon breaking five minutes for the mile. Mike was also finding new successes on the track.

The mile became an interesting duel for the pair. As Mike grew older and stronger and his father just grew older, the gap

Merle and Mike Diment

narrowed. Until this year, dad held the edge, with the family record of 4:53.

They did not do special preparation for the mile run, except for an occasional test series of 10 x 440 in 30 minutes to get a feel of the pace and oxygen demands of the race. So the results from 1974 were surprising.

Mike had broken five minutes for the mile the year before at age 12—good progress for an aspiring age-group miler, but many young runners around the country were far ahead of him. Then, in late spring all-comers meet Mike was matched against a neighborhood rival, Rick Lamb. Rick had been enjoying a record setting spring as a high school freshman. It was a battle of pride: a budding high school star against a boy who could in a year or so become one of his main rivals. The two raced to levels neither had reached before. Mike narrowly triumphed, with an impressive 4:40.8. He was suddenly national level.

Later, Mike raced at Saginaw, Mich., in the midwest division of the National RRC Postal mile. Mike beat the defending champion and was the first 13-year-old to break 4:40. Finally, into the lion's den—the national AAU age-group meet in Pasadena, Calif. The time was slower, but victory over the California hordes was prized.

One might expect the sudden rush of success to cause a rise in expectations, new confidence, fired desire. But when asked by a Des Moines reporter what he thought about next year, Mike replied, "Well, next year I'll be in the 14-15-year-old age-group and I'll proably get killed !"

Not that Mike and his family haven't thought about the future. Des Moines is a city where it is possible for a student to go to any one of six high schools, and coaches are already dropping hints. The Diments worry whether their own already developed ideas about running will fit with the pressures and demands of high school track.

How much time can a top student (Mike has nearly a straight-A average) devote to reaching the athletic heights that may be expected of him. Will he enjoy the more regimented training required by the "team system" and major races twice a week, instead of picking his races and the low pressure training runs with his father and sisters, pushing only when he feels like it?

In fact, all the Diments will soon have to face these questions. Mike's 12-year-old twin sisters, Barbara and Kathy, are also state age-group champions and almost high school class milers already. Little sister Linda, nine years old, was ranked 42nd in the mile this year in her age bracket.

Track is the family hobby, interest runs high, success is enjoyed, but there is no urgency. There is time—time to relax, time to take things as they come, time to think about the price of success, time to have fun. •

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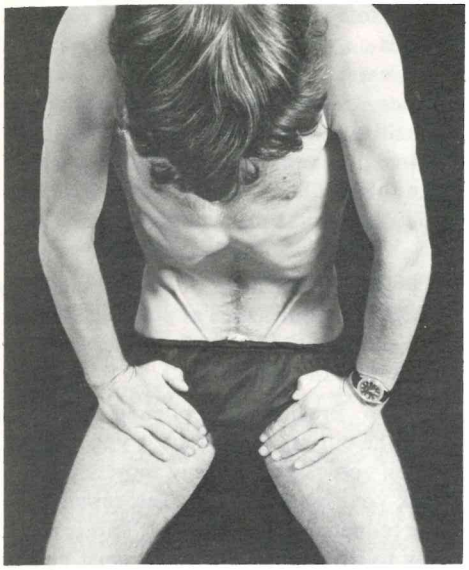


It may look "gross," but this hatha yoga technique can do wonders for your running. Who needs the drudgery of situps? (Jan Herhold)

THE FUN WAY OF GUTTING IT OUT

Situps are a poor substitute for these unique yoga methods of abdominal development.

by Ian Jackson

"Ugh!" said Jan's younger brother as he peered at the prints drying in the darkroom. "What *is* that guy doing?"

"He's doing yoga—Uddiyana and Nauli."

"Ugh!" he said. "That's really gross. Who'd want to do something like that?"

Ironically, his feelings of revulsion at these yoga techniques are similar to my feeling about the Western equivalent—situps. I hate situps. Can't stand the thought of them. And yet I know that strong abdominal muscles are essential for efficient running. That's why I was so glad when I discovered Uddiyana and Nauli.

They are not gross, but engrossing. They are not mechanical, boring and dull, but precise, absorbing and fun. If you share my gut level grouch about situps, you might share my fascination with these unique techniques.

Even if you react like Jan's brother, you should know about the great importance of abdominal strength. If you want to run at your best, you need it. Situps are a poor substitute for the yoga methods, but they are better than nothing.

Joe Henderson introduced the runner's world to yoga in the January '73 issue with "The Runner's Final Stretch." He expanded on the theme in *Exercises for Runners*, to which I contributed "Yoga for the Runner" and a basic course of yoga asanas (postures).

Runners need supplementary exercises because running is *not* the complete fitness activity we would like to believe it is. In some cases, running creates new problems; in others, it neglects old problems. It tightens and shortens the muscles at the back of the lower leg and thigh, creating a muscular imbalance that can lead to an endless succession of injuries. The average runner is far more inflexible than the average man on the street.

The average man on the street has weak abdominals in comparison to his back muscles; consequently his spine is pulled out of alignment and his posture is poor. Running does little, if anything, to correct this problem. In fact, it tends to aggravate it, because it is only after some months or years of steady running that the spinal distortion becomes severe enough to release those pains that start in the small of the back and shoot down the legs—the pains of sciatica.

If you don't work on strengthening your abdominals, you risk having your running career cut short. It was sciatica that nearly crippled Steve Prefontaine during 1973.

My own reaction to warnings such as these is usually "It'll never happen to me." So rather than dwelling on the negative, let's move right on to the positive. Strong abdominal muscles can boost both speed and endurance. By improving posture, abdominal strength helps refine the running motion into an effortless flow. By improving breathing capacity, it helps supply the working muscles with more oxygen.

Next time you're at a race, check the postures of the runners standing behind the starting line. Looking from the side, you should be able to trace a vertical line through the ear, the shoulder, the hip joint, the knee and the ankle bone. If the large bones of the body are nicely stacked like this they support the body masses easily—the muscles need only make fine adjustments of balance. If, on the other hand, the large bones are out of alignment, we lose this effortless stability of structure. The muscles are called to a task they were not designed for—they have to help the bones support the body masses rather than simply balancing them.

When you look at someone with poor posture, you're witnessing a steady drain on the body's energy resources, a needless waste of energy that could be put to better uses—like running faster and longer. The energy drain is actually aggravated in running, because of the extra effort needed to absorb the body's downward momentum at each footfall. By correcting postural distortions, strong abdominal muscles economize the running effort.

Closely related to postural refinement is the question of correct pelvic tilt. Bill Bowerman has pointed out the advantages of this element of running style. When the pelvis is tilted too far forward (the body in a "starter's lean," the butt sticking out, and an exaggerated curve in the lowerback) the knees cannot be freely lifted, and energy is wasted in resisting the tendency to fall forward. When the pelvis is held more level (the body erect, the butt tucked in and under, and a natural curve in the lower back) the legs have far more mobility and the effort of running is far less taxing.

Percy Cerutty says that the upper body should be lifted up out of the pelvis. Runners should move like horses, with the body stretched tall above the legs.

Cerutty also says that modern man has forgotten how to breathe. Runners

who want to excel should retrain themselves in natural breathing. His ideas are close to the teachings of the ancient yogis. They believed that a complete breath should be like filling and emptying a pitcher. As you pour water in, the pitcher fills from the bottom up. It empties from the top down.

In order to fill the lungs in this way, the diaphragm should first descend, and then the chest should expand (see diagrams). In breathing out, the chest should contract, and then the diaphragm should move up into the chest cavity.

Most people are unaware of the work of the diaphragm. To get in touch with it, keep your chest from moving by holding your hand against it, and then pant like a dog. You can feel the diaphragm moving up and down in the lower chest cavity. Notice when you do this, that the belly gets loose and relaxed, moving gently in and out to the rhythm of your panting.

Take your hand off your chest, and free it to participate in the panting. Now your whole front trunk will be moving with the breath, which is as it should be. Most of us don't release the whole trunk to the breath (which is not as it should be). For some reason, many of us get tight, especially in the abdominal region. This limits the movement of the diaphragm, which reduces the air volume of each breath, which shortchanges the muscles of needed oxygen.

According to Shyam Sundar Goswami's *Hatha Yoga*, "the diaphragm seems to arise from the rectus abdominis." You might have noticed that stitches often strike when you do some downhill running. Arthur Lydiard has suggested that leaning back while running downhill puts the abdominal muscles under a particular tension which tends to cause cramp in the diaphragm and that knife-like pain. The abdominals are very much involved in the breathing action.

Uddiyana and Nauli, by both strengthening and relaxing the respiratory muscles—chest muscles, diaphragm, and abdominals—can help a runner get more oxygen to his muscles. It doesn't make sense to spend years developing the body's capacity to use oxygen while neglecting its capacity to get air into the lungs.

To prevent sciatica, to develop an economical running posture, and to improve the air capacity of the lungs, we need strong abdominals. Let's look into a fascinating way of building them. First, we must learn Uddiyana—the stomach lift. Only when this is mastered is it possibly to do Nauli—the muscle manipulation.

Since I was unable to find a teacher, I had to teach myself Uddiyana and Nauli with the help of some hatha yoga books and a mirror. The mirror was by far the most helpful. I don't think I could have succeeded without it. The only thing wrong with a mirror is that it is dumb. It can reflect your mistakes right back to you, but it can't tell you how to correct them. You have to discover that on you own, by patient trial and error.

It is not wise to manipulate the stomach region when you have recently eaten. The best time for practice is in the morning, after your bowel movement and before breakfast. If you forget this caution, stomach upset will soon remind you of it.

- Stand in front of the mirror with your feet about 12 inches apart. Bend forward slightly and place your hands on your thighs. I don't think it matters much where you place your hands—the photos I have seen show the whole range of placements, from just above the knees up to the very top of the thighs. You will have to experiment to find the best placement. I find that the higher placements work best for me.

- Put as much of your upper body weight on your hands as possible, so that the abdominal and back muscles are free to help in the stomach lift.

- Breathe in deeply and then breathe out as completely as you can. When you can't force any more air out, lock your breathing passages, resisting the tendency to breathe in. This is the key to Uddiyana. The lungs must be kept empty.

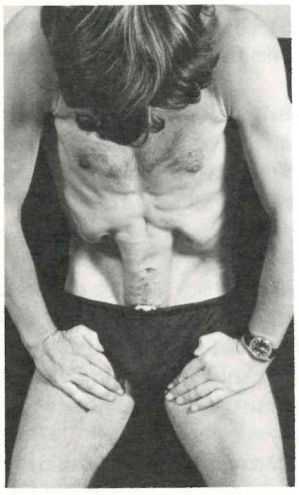
- Now expand your chest *as if* you were taking a deep breath, but *without letting any air in.* To get a maximum chest expansion, try lifting your shoulders and pressing harder on your arms.

- As you expand your chest, suck the stomach up and back. This will create a hollow under the rib cage.

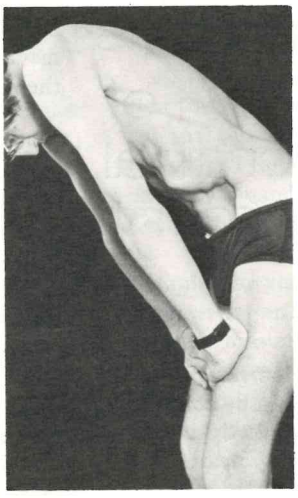
(Don't be discouraged if you don't get results immediately. When I first tried it, nothing much happened. My chest was too rigid and my abdominal muscles were too tight. It was at least a week before I achieved the first respectable hollow. In this yoga technique, as in all others, *trying* is as effective as succeeding. It is the attempt that brings the results.)

- Hold the stomach lift for no more than five seconds, then, *still holding the breath out*, let the chest collapse and the abdominal wall come forward.

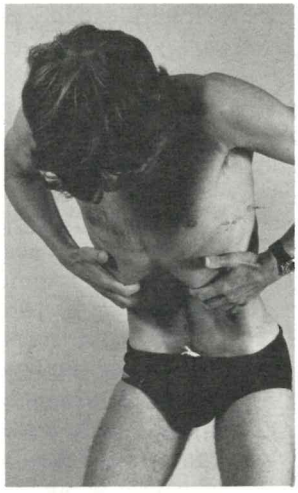
A—Central Nauli



B—Side view



C—Deep hollow



A—Pressure on the hands and a forward/downward thrust of the rectus abdominis muscles.

B—Side view. Note how much the back muscles come into play.

C—Before Nauli can be performed, you must achieve a deep abdominal hollow.

(Jan Herhold photos)

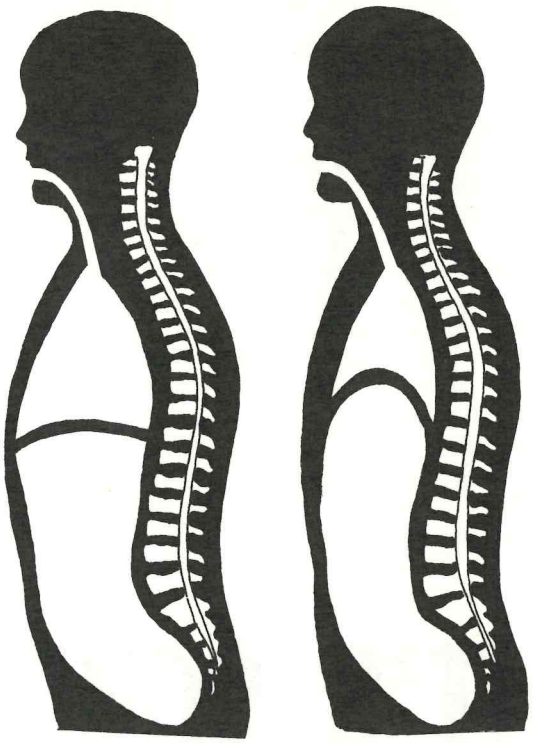
• Do not breathe until you have released the stomach lift. The inbreath then serves as a measure of moderation. You should be able to take the air in easily. If there is any feeling of suffocation, any gasping for air, then you have overextended yourself.

When you can consistently achieve deep hollows, try adding extra stomach lifts. Each breath suspension is considered one round of the practice. I started with 10 rounds, that is, 10 five-second stomach lifts. When I began adding extra lifts, I did them very quickly, so that they felt like a large abdominal flap popping in and out. I finished each round with the measure of moderation—a five-second hold followed by a gentle release and a relaxed inbreath. I gradually increased the number of lifts per round, from two to five to 10, and then 20, 30, 40, 50, and beyond. I noticed that when I got up into the 40s and 50s I tended to push myself too much, so I set my maximum at 25 and have stayed at that level ever since.

The next step is to start trying to get the rectus muscles to come forward. When I first attempted this, I was doing 10 rounds with 25 Uddiyanas per round. I simply added a couple of rounds of experimentation with the rectus muscles.

This was a fascinating but frustrating challenge, made more difficult by lack of instructions. The books all agree that you need to get a good hollow before you can try to bring the rectus muscles forward. Beyond this basic agreement, they have different advice. Vishnudevananda (*The Complete Illustrated Book of Yoga*): "...allow the center of the abdomen to be free by contracting the left and right sides of the abdomen." This didn't help much, because I couldn't understand what he meant by "contracting" the sides. Yesudian (*Yoga and Health*): "...contract the abdominal muscles—the two recti—and arch them forward with a strong push." Goswami (*Hatha Yoga*): "...try to cause the rectus abdominis to stand out against the collapsed abdomen by pressing strongly on the thighs with the hands and by making skillfully a forward-downward abdominal thrust." Kuvalayananda (*Yogic Therapy*): "While maintaining Uddiyana, give a downward and forward stroke to the abdominal recti just above the pubic bone. While doing this, press the thighs with the hands. The recti will contract and stand out from the other muscles."

It took me five months to get the first faint signs of success. During that time, optimism and pessimism were about equally balanced. Sometimes I thought "Today's the day, I can sense it." At other times I thought "This is hopeless, I'll never get it." But the most remarkable feature of the learning process is that it was always completely absorbing. I was not working, I was playing. Each practice was an engrossing trial of neuromuscular coordination. The abdominal strength and relaxation came as by-products.



On inhalation, the ribcage expands the the diaphragm descends. Air rushes in to fill the partial vacuum thus created in the lungs.

On exhalation, the ribcage contracts and the diaphragm rises. This pushes the air out of the lungs.

Ideally, the whole trunk should participate in each breath—both the chest and the abdominal regions must be completely free.

When that two-muscle column finally showed itself, I was so elated I immediately lost the control. I succeeded more and more often in the next few days, and within a month I had worked up to a daily practice of 10 rounds of 25 Uddiyanas followed by 10 rounds of 25 Naulis. That meant 500 vigorous abdominal contractions per session, and it took a little over 10 minutes, including short rests between rounds.

After a few weeks at this level, I began adding a few rounds for trying the next step in control—isolating one rectus muscle at a time. I've been at it for months and success still eludes me. The books all advise pushing hard on the left thigh to make the left rectus stand out, and on the right thigh for the right. It's not that easy. *Both* muscles do indeed move over to the side where pressure is applied, but the idea is to get just *one* to stand out.

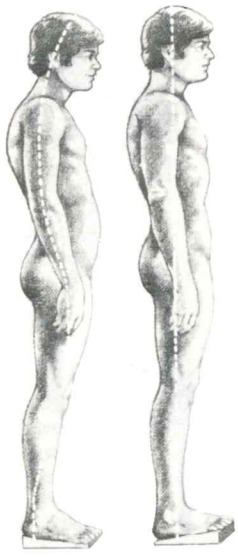
Frustrated, fascinated, and ever more determined to succeed, I began working for more general control. I tried doing Uddiyana and Nauli while sitting cross-legged rather than standing. I found I could still do Uddiyana, but not Nauli. For some reason, I couldn't get the right "purchase" on the muscles anymore.

But my efforts brought an unexpected and welcome addition to my abdominal control. Quite by accident, I got the oblique muscles to stand out. I consolidated my control and then learned to do it while standing up. I have found it relatively easy to get the oblique muscles to stand out one at a time, and I have hopes that this will help me learn how to get the rectus muscles to come forward singly.

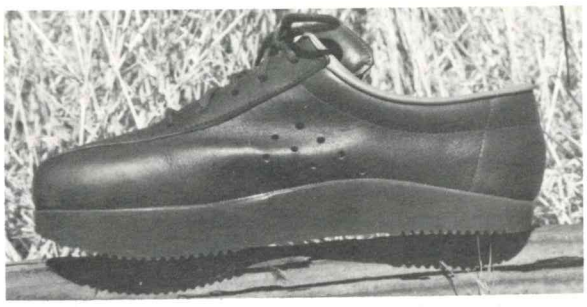
So far my hopes have been disappointed. I have had to content myself with playing with patterns of control. This takes intense concentration, and it's easy to get completely wrapped up in it, and to lose all track of time. When trying alternate Uddiyanas and Naulis, or alternate oblique contractions and Naulis, or some other pattern, I have sometimes played with the muscles for as long as an hour. In that time, I probably do about 2500 contractions.

Of course, I really pay for this overindulgence with sore muscles next day, but that's my own fault. Certainly these techniques can be overdone. Just as certainly, situps can be neglected. They are so boring and mechanical that they usually *are* neglected. That means abdominal strength is neglected, sciatica waits in the wings, and potential running improvement lies dormant.

The benefits of abdominal strength are persuasive. These ancient techniques can reap them for you. They are more than enjoyable, they can be seductive. Get thee to a mirror and gather up thy gut! •



An Earth Shoe promotional sketch (left) illustrates the value of a negative heel. The "Sport Root" shoe (right) shows how one company's heel is constructed.



by Joe Henderson

A report on "negative-heel" walking shoes, and the stretch they offer to tight runners.

IT'S DOWN-HEEL FROM HERE

No runner has to spend much time on the road to fitness before realizing that lots of things are happening to his lower anatomy, and that most of them are bad.

The legs are getting in shape. That's good. But at the same time, they're getting sore and tight. The tightness isn't something you get over as you get in shape. It gets worse if you do nothing to correct it. Running is a "tightening" activity, and when the backs of the legs get tight they get hurt.

All of this is explained in the booklet *Exercises for Runners.* Dr. Steven Subotnick, *RW*'s podiatry consultant, says there, "The runner must be aware of the fact that strengthening and endurance exercises reduce his flexibility. Long and middle distance running results in overdeveloping at the back of the lower leg and thigh, in particular the gastrocnemius and soleus in the lower leg, and the hamstring in the thigh."

Subotnick has said he can spot a runner from across the room by his tight heel cords and calves. The tight achilles tendon is the runner's trademark...and too often his breaking point.

One antidote is stretching exercises of the kind outlined in the *Exercises* booklet. They're descended from yoga, with the emphasis on slow motion and on holding positions.

It's questionable, though, how much good 5-10 minutes of yoga-like stretching is in undoing the tightening of running, walking and standing all day, on hard surfaces, in shoes with heels. (Hard ground and heeled shoes shorten leg muscles and tendons even without the running.) What may be needed is all-day stretching. But how?

Anne Kalso found a way. She's a Dane, now nearly 70, who says "yoga changed my life when I was 45. I was a sick 45, and needed an operation. She was healthy enough two decades later to walk 500 miles around Denmark in 18 days. She took the walk, and another just as far, to test a shoe she'd invented. It had the heel lower than the sole.

Kalso's rationale: "When a man walks barefoot and naturally, the weight of the body sinks low into the heels. This is the secret of correct and beautiful carriage. If the heels are lower in each step, the shoulders are automatically drawn erect to compensate and the stomach muscles are just naturally sucked in as the shoulders go back."

She made a shoe which simulated a healthy footprint in soft sand (deep heel imprint, high arch, ridges behind the toes), and invested 10 years in perfecting it. The idea came to her in 1957. It wasn't until 1970 that the name "Earth Shoe" was attached to her design and it was marketed outside of Europe.

Anne did much of the groundwork herself. "As a shoemaker," she recalls, "I had to stand many hours at machines, bend and kneel. I was so very busy I had no time for yoga, but found that by wearing the shoes my body remained flexible."

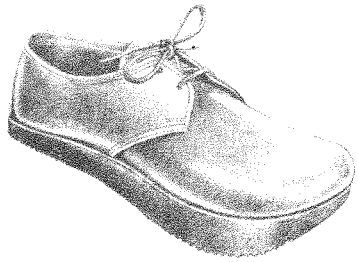
It takes no great leap of the imagination to see why "negative-heel shoes" have potential value to runners, and why the companies have spotted this sport as a fertile sales field. These shoes seem to offer that all-day stretching we can't get any other way short of becoming a full-time yogi or a beach-bum.

Anne Kalso's Earth Shoes appear to do what she claims, and are a financial success. The first US outlet for the shoe opened in New York in 1970 (the same week as "Earth Day"; hence the name.) Now there are 47 Earth Shoe stores in 23 states and Canada. A plant in Massachusetts makes the shoes and is hard-pressed to keep up with orders.

Competitors have grown up. The leading one is "Roots." The Root shoe has the negative heel, but is a variation on the Earth Shoe theme. Designer Don Green insists it is not an imitation but is a more comfortable shoe with a lower arch and a less dramatic toe-to-heel slant.

Green, a young Detroit native, worked for a year perfecting his designs before opening his first store in 1973. The Roots chain, which now totals 13 stores in six states and Canada, evolved from a group of friends and relatives. Several years ago, Don Green, his brother Richard and 11 friends built a cabin in the Canadian woods. All of them lived there for a time.

The others eventually scattered around the country, but Green stayed



Three of the popular styles of Earth Shoes. They also come in sandals and boots. Anne Kalso invented and patented the shoe which features a recessed heel and a "rocker" sole.

on in Canada to work on his shoes, eventually establishing his manufacturing facility in Toronto. Ten of the 13 original cabin-builders now work for Roots throughout North America.

The Roots and Earth shoes are rather expensive and are similarly priced (up to $45 for boots). They're found only in Roots and Earth stores. But you can find similar shoes, ranging from good to shoddy imitations, almost anywhere. They wear the names "Gurus," "Action Sole," "Exersole," "Nature Shoe," "Rovers," "Rockers," "Mud." Their main appeal is price—as low as $17. And you might be buying trouble. There are subtleties to making negative-heel shoes that don't need to be considered in standard ones. Most of the imitators aren't too subtle.

The main trouble spot is the arch. With heeled shoes, it doesn't matter so much where the arch is, how high it is, or whether the shoe has one at all. But when the heel drops, the foot's tendency is to turn inward—to "pronate," in podiatrists' jargon. On soft earth, the compacted soil prevents the foot from turning in. In these shoes, the arch support must do the same thing. The size and placement of the support is critical.

Here, we're concentrating on the two brands which, in the opinion of podiatrists, have given enough attention to this critical detail as well as to overall quality. These two are the Earth Shoe and Roots.

I can claim some objectivity. I tried on several of the imitators and could feel the inward tugging at the ankles. I wore Earth and Roots for a week each and there was no pronation. But I still couldn't stand either one. It wasn't the fault of the shoes. My parents are to blame for making my feet too wide (triple-E). I was a great swimmer before I took to running.

I admire both companies for saying straight out, "You can't wear these. They won't fit you."

Andy Rosenbloom operates the local Earth Shoe business. He became a believer in the shoes, he said, when his back quit aching.

"I had a life-long back problem which finally resulted in a spinal fusion operation. I was never able to stand on my feet for long hours. But within a week after buying my Earth sandals, I was able to stand all day and to take long walks."

It was later that he went to work for the company. He gave me the standard rundown of shoe features, the one he gives a hundred times a week to customers. But he also told me things shoe salesmen don't usually talk about:

"Some people simply can't wear these shoes—anyone with extremely wide feet, wider than our widest style, and anyone with extremely flat feet who can't adjust to the arch."

I asked Rosenbloom to compare his shoes with Roots. He picked up a Roots shoe from the stack of a half-dozen negative-heel shoes on his desk.

"There is an arch support, to be sure. But it's too far forward, in our opinion. It doesn't transfer the weight from heel to big toe as effectively."

Don Surath, the local Roots store manager, has the problem of being number two. A woman in the shop asked, "Do you sell Earth Shoes here?"

Don said, "No, we sell Roots."

"Oh, well can you tell me how to get to the Earth Shoe store?"

Don sighed and told me, "They have the name. We have to outdo them on quality." How the quality of workmanship of the two brands of shoes differs, I'm not enough of a shoemaker to say. But the key differences apparently are in the arch and heel.

"Roots has a lower arch," Surath said. "Most people find it much easier to get used to." (A high-arched person, he said, may have some trouble adapting; also one with a very wide foot.)

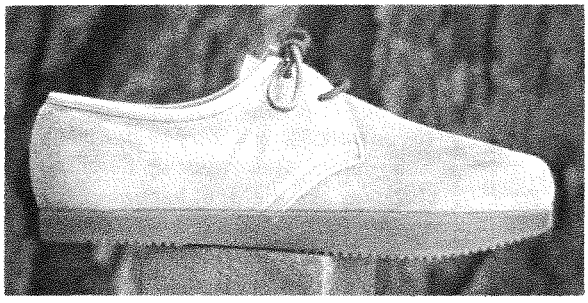
"Notice the difference in the heel counter," he said, holding up the two brands by the back. "The Earth Shoe is softer back here. Ours is hard all the way around the back. The doctors say this counter keeps the heel in place at a time when there's a tremendous amount of pressure on it. This causes the arch to hit where it's supposed to hit, and the toes to grip where they're supposed to grip. There's no runover at the heel."

Surath added, "Everyone is imitating the Earth Shoe, which is great for us. So far, there's nothing else quite like Roots."

Okay, this is what the shoemen are saying. What are the views of the foot specialists, the podiatrists? Do they see these shoes as having any special value to people in general, and runners in particular?

A study of Earth Shoes is going on at the Calif. podiatry college to determine some answers. Results won't be available for some time yet. But two doctors from the school have informal views.

Dr. Leslie Wolff, who participated in the Earth Shoe study, says, "The feet haven't evolved to walk on hard, smooth



The Roots shoes also have a negative heel and raised sole, but the toe-to-heel slant is less dramatic than the Earth Shoe's.

surfaces. The result of walking on them in most shoes is excessive pronation—a lowering of the arch, accompanied by turning in of the leg and turning out of the foot. This causes a secondary contracture of the achilles tendon, which is where many runners get hurt.

"The negative-heel shoes with a raised arch don't allow pronation, and they stretch the achilles with every step you take."

Dr. Steven Subotnick, a long distance runner himself, isn't so convinced of the shoes' value: "Just what does the negative-heel shoe do? First, it places a stretch upon the achilles tendon, the gastrocnemius and soleus muscles (of the calf). Is that good? Yes and no.

"The shoes (Earth and Roots) do have some control against pronation built into them. And if the foot is fairly normal but the muscles are tight due to overuse in running, then these shoes appear to be beneficial. But the more biomechanical deformity one has in the feet and legs, the less successful are the negative-heel shoes. In this case, stretching and strength exercises, and the use of custom-made orthotics (supports) are of primary importance."

Dr. Subotnick says, if you have a serious defect in the way your feet meet the ground, don't expect miracles from a shoe. The doctor has such a problem. He tried a pair of negative-heel shoes. His reaction: "They were a pain in the ass! They hurt my feet, legs and back. I much prefer my stretching exercises and orthotics."

There are risks. A runner with a calf or achilles injury in its acute stages, for instance, wouldn't want to make a sudden change to negative-heels. Dr. Wolff says, "This might aggravate the injury. You want to take tension off the injured area, not add more. But later, after the injury has healed, you need to stretch the muscles and tendons out."

A podiatrist once told Dr. George Sheehan, "Heels (on shoes) shorten the tendons. If you're going to run in competition and you want speed, you're going to have to lengthen them."

You can't lengthen them while you're running. Running has the opposite long-term effect. And because the legs are at full-stretch and are most vulnerable during fast running, distance running shoes need heels. The time to stretch is when you are *not* running.

The transition from street shoes with negative heels to heeled running shoes is an easy one to make, according to runners who do it every day. They have simply put an extra margin of safety into their legs by walking down-heel. ●

REHEELING YOUR RUNDOWN SHOES

by John Sevcik

The climate of inflation has led runners to search for elixers to increase their mileage-per-shoe quotient. Straightforward solutions such as running on grass surfaces more often, running less often or stealing someone else's shoes may be economically lucrative, but they do not address the problem squarely. If you enjoy gambling, you can just as well pretend your rundown heels are still okay and see what happens. If you are like that, be sure to pass by your doctor's office when you run. He'll enjoy watching you, too.

You've no doubt heard of the glue gun, but you've also heard it may be dangerous to shoot an already worn-down heel. If you still have your old shoes and their only shortcoming is that they endured your punishment in the era before you bought a glue gun, some salvation is in sight.

Do your shoes have spongy soles such as those on a pair of Adidas Gazelles? Have you at least three such shoes you cannot otherwise use? Can you scrounge up some rubber cement? Have you got a razor knife, flair pen,

paper and straightedge? Would you like to save the price of a new pair of shoes in two or three hours? You would? Here's the recipe.

Write down how many fingers you have. Several times during the operation, compare this figure with the total on hand. If they differ at any time and you've counted twice to make certain, go to the hospital. Take any loose fingers along if you must go.

Inspect the heel of the shoe you are to repair. Using the straightedge, draw a line separating the worn-down area from the usable shoe. Draw this as close to the tip of the heel as you can while still being able to draw on visible tread. Extend the line a little way down either side of the shoe.

With the aid of the straightedge, determine the maximum depth of wear. Add an eighth of an inch. Make a dot with with the pen that tiny distance (eighth-inch) under the point of maximum depth on the side of the heel. Now make a couple of more the same distance from the original surface, at other points around the heel.

Draw a line connecting the points and intersecting the two short lines you drew previously. Those are the cut lines. Try to keep them neat. If they don't look uneven and you're not notoriously sloppy, they're probably adequate.

Have you imbibed alcohol or smoke of a certain variety in the past 12 hours? If so, wait.

Pick up the razor knife. It should have at least an inch and a quarter of blade. It must be sharp. Use a fresh blade if possible. Begin with the straight incision on the surface of the heel. This is the easier cut and will introduce you to the feel of carving the material.

Applying mild pressure, slowly slice the length of the line on one side of the heel. Bending the shoe to open the cut, cut again. The rubber will part like butter. Count your fingers. Repeat this until you are almost to the point where the two incisions will meet.

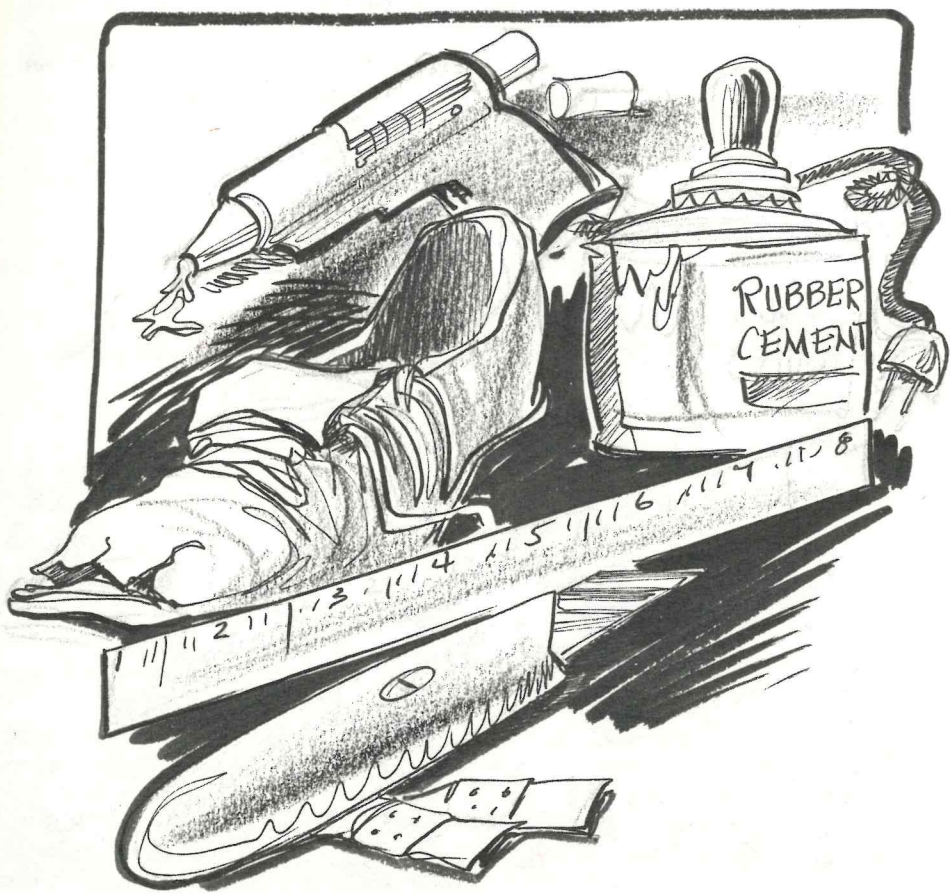
Cut around the heel following the line on the other side. As soon as you can, spread the cut open by holding onto the separating piece and pulling it away from the shoe. Try to keep the cut as smooth and even as possible, using the lines as guides.

Take the third shoe. Using the fragment you have cut off, draw cut lines and make a replacement. You'll have to take the new heel from somewhere between the heel and arch of the third shoe. Adjust the thickness after comparison with the recipient shoe has been made.

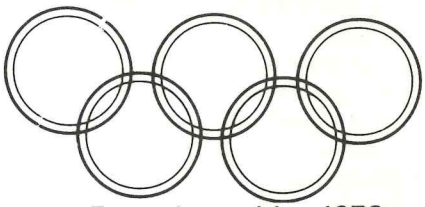
That done, coat the new heel and its destined notch with rubber cement. Let it dry a few moments and then jam them together. Clamp them together—a leg of a table will patiently stand in your shoe without moving—and let them dry overnight.

Now put the shoe on. It looks awful, doesn't it? Maybe the heel will come off. Use it on a short workout first. If it doesn't come off after four miles, it probably won't until you grab it and tear it off. It isn't bonded all that tightly, but it doesn't have to be because everytime you land on the heel you compress it into its notch. All the glue has to do is keep it from falling off.

The straight incision will open and you may have to pick pebbles out of it after workouts, but it won't come off. It looks awful. It sounds awful. It works to the life of the sole. But next time, use a glue gun. Your fingers will feel better. •



Olympic Action



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At last, an answer to how much time a runner can save with the high-carbohydrate diet.

EATING AWAY PRECIOUS MINUTES

by Paul Slovic

For years, discussions about the influence of diet upon athletic performance tended to emphasize the benefits of protein and vitamins. However, few if any of the enthusiastic claims for these substances have been confirmed by scientific tests. Thus, it was rather surprising when highly respected Swedish physiologists described a diet whose proven effects on endurance surpassed even the wildest claims of the health-food huckster.

The Swedish diet originated with the discovery that endurance was directly related to the amount of glycogen stored in the muscles. It was observed that depleting the muscle-glycogen stores by means of exercise and a low-carbohydrate diet would enhance the resynthesis of glycogen and produce stores as much as 100% above normal levels once carbohydrate ingestion was resumed. This increase in stored glycogen was accompanied by a comparable increase in the amount of time an individual could exercise before succumbing to exhaustion during laboratory tests.

The implications of this work for endurance athletes were quickly noted. Physiologist Per-Olaf Astrand advised such athletes to exercise to exhaustion one week prior to their event, then keep the glycogen content of the muscles low by consuming a low-carbohydrate diet for three days. Thereafter, a high-carbohydrate diet was recommended until the competition. This diet has come to be known as the "glycogen-overload" or "super-compensation" diet—the latter term arising from the enhanced storage capacity of muscles initially depleted of glycogen.

The basic laboratory work and Astrand's recommendations were published in scientific journals in 1967. This work has since been widely publicized in *Runner's World* and other periodicals devoted to running. As a result, the practice of glycogen loading is increasingly popular among long distance runners. A survey of runners in the 1974 Trail's End marathon indicated that 50% of the respondents who finished in three hours or less had followed this diet.

Given the popularity of the glycogen-loading diet, it seems natural to ask what its effect is likely to be upon the performance of the distance runner—particularly the marathoner. In other words, how does increased endurance on the laboratory bicycle translate into minutes saved in the marathon?

To my knowledge, only two studies have addressed this basic question—one by Karlsson and Saltin (*Journal of Applied Physiology*, 1971, Vol. 31, pp. 129-139), the other by myself.

Karlsson and Saltin tested 10 distance runners of varying ability in two 30-kilometer races, three weeks apart. Before the first run, half the subjects ate a normal mixed diet while the others overloaded with carbohydrates as outlined above, under direct supervision of the researchers. In the second run, the two groups were reversed.

Marathoners in the Trail's End race at Seaside, Ore., are said to have improved by 6-11½ minutes by loading up on carbohydrates.

The effects on performance were impressive. Every runner ran faster after the special diet, the mean improvement being 7.7 minutes. The range of improvement was from one minute (two subjects) to 16 minutes (two subjects.) Times for the first third of the run were about equal for both conditions, but thereafter the carbohydrate-loaders maintained their pace while the non-loaders slowed by up to 16 minutes as compared with their other performances.

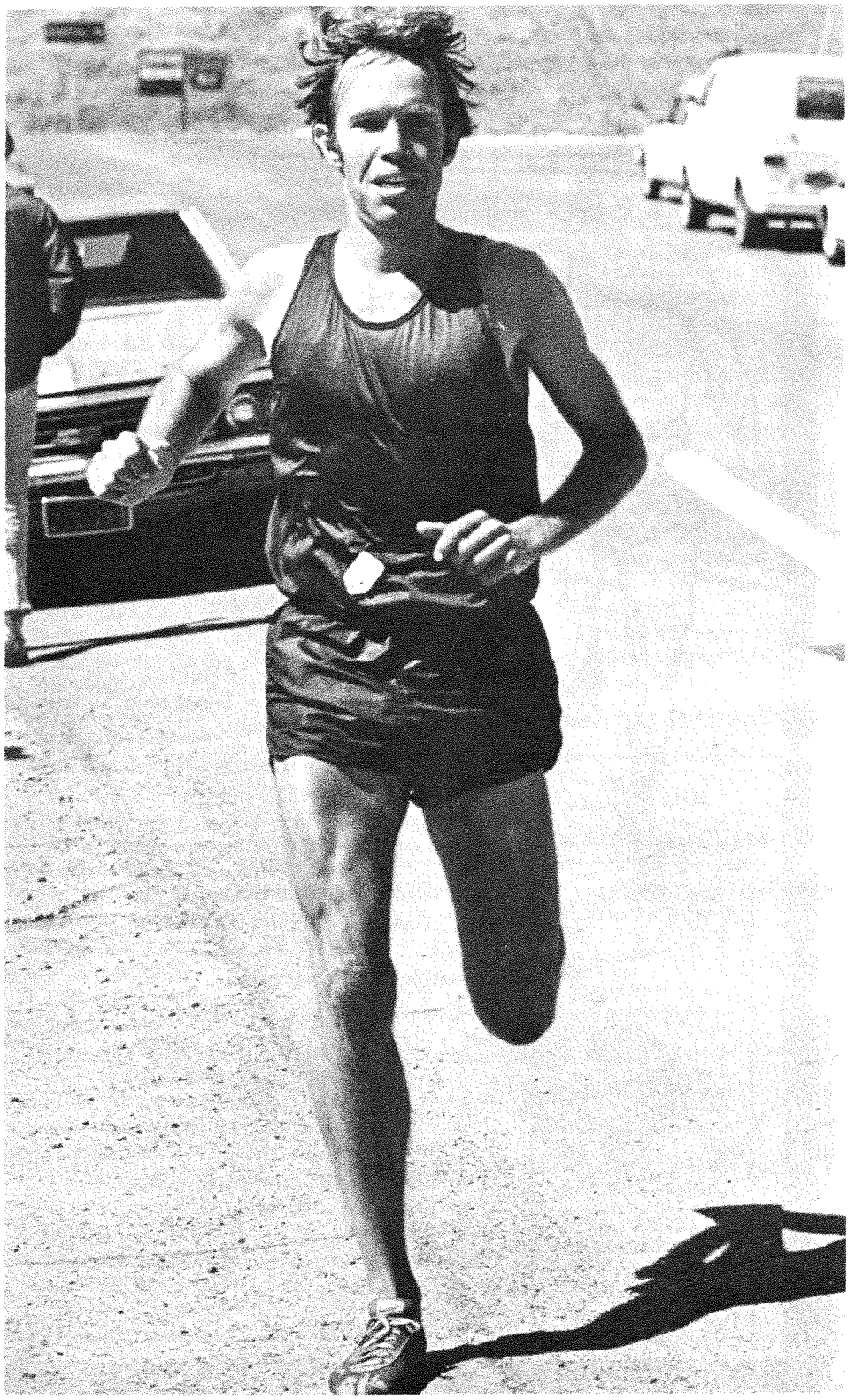
My own study was based upon questionnaires distributed to participants in the Trail's End marathons held at Seaside, Ore., in 1973 and '74 (see "What Makes a Marathoner?", Oct. 73). One question in the 1974 survey pertained to diet. From responses to this question, runners were grouped into three categories: (a) *non-loaders*; (b) *partial-loaders* who increased their carbohydrate intake prior to the marathon, but did not follow the full low-carbohydrate (depletion)/high-carbohydrate sequence and (c) *full glycogen-loaders* who followed the complete sequence.

There were 181 survey respondents

(out of 322 finishers)—98 were non-loaders, 27 partial-loaders and 56 full-loaders. The fastest respondent finished in about 2:16. The slowest spent more than 4½ hours on the course. The average respondent finished in about 3¼ hours.

On the average, the glycogen-loaders finished considerably faster than the non-loaders (2:57:18 compared with 3:23:12). However, the "loaders" also trained harder, had more experience with marathoning and were somewhat faster in the mile. These factors, rather than diet, may have determined their superior performance. Also, the loaders may have been more highly motivated to achieve a fast time.

"Diet made little or no difference over the first half of the run, but was associated with marked changes in performance over the last quarter of the course... The marathon runners showed little effects of diet prior to the 20-mile point." (John Marconi)



In order to properly assess the effect of diet, a method for controlling training, ability and motivation had to be employed. This was done by using the 1973 and '74 survey data to develop equations to predict final time. These equations took account of the training, background and ability factors on which the loaders and non-loaders differed. The effects of diet were then estimated by comparing glycogen-loaders with non-loaders who had the same predicted times, according to the equations.

These calculations were used to control training and ability. Despite marked differences between the design of this study and that of Karlsson and Saltin, the 6-11½-minute improvement is close to their 7.7-minute effect over 30 kilometers.

Another similarity between the two studies is that diet made little or no difference over the first half of the run, but was associated with marked changes in performance over the last quarter of the course. The difference between studies is that this "last-quarter" effect began earlier for Karlsson's and Saltin's subjects who were running a shorter race at a faster pace. The marathon runners showed little effects of diet prior to the 20-mile point.

My description of these two studies has been condensed and oversimplified. The validity of the results reported here depends upon many assumptions, any of which could be incorrect. A discussion of these assumptions and a more detailed account of the methods and data from the marathon study can be obtained from me at P. O. Box 3196, Eugene, OR 97403.

The improvements in performance demonstrated thus far almost guarantee the widespread use of glycogen-loading by endurance athletes. However, the effects of this diet may not be entirely beneficial. Investigation of possible adverse effects certainly seems warranted.

Until we know more about these dangers and who is likely to be susceptible to them, the runner considering this diet for the first time is advised to take the precautions recommended by Dr. Ben Londeree in "Solid and Liquid Energy" (July 74 *RW)* and by Dr. Bob Fitts in the "Modified Diet Act" (Oct. 74 *RW*). These include experimentation with the diet and moderation in the frequency of its use. ●

by Ron Abell

RUNNER'S GUIDE TO PORTLAND

They have this...this...*thing* in Oregon. It's called rain, and it comes down from the sky in little drops. Lots of little drops. Millions of little drops. It makes the ground wet. It makes your clothes wet. It makes *you* wet.

We have a saying in the Beaver State: "Oregonians don't tan—they rust." It's not for nothing that our state animal is the sponge. In Portland, we predict the weather by looking east. If we can't see Mt. Hood, that means it's raining. If we *can* see Mt. Hood, that means it's going to rain. And we always know when spring gets here—the rain warms up.

So much for the bad news: if you plan to run in Portland, bring your wet-weather gear.

But the good news is this: nowhere else—nowhere—can you run around town with less hassle. After all, we Oregonians think we invented jogging. Whether we did or not is beside the point—we *think* we did, and we take a zany but sincere civic pride in the packs of runners who splash around town.

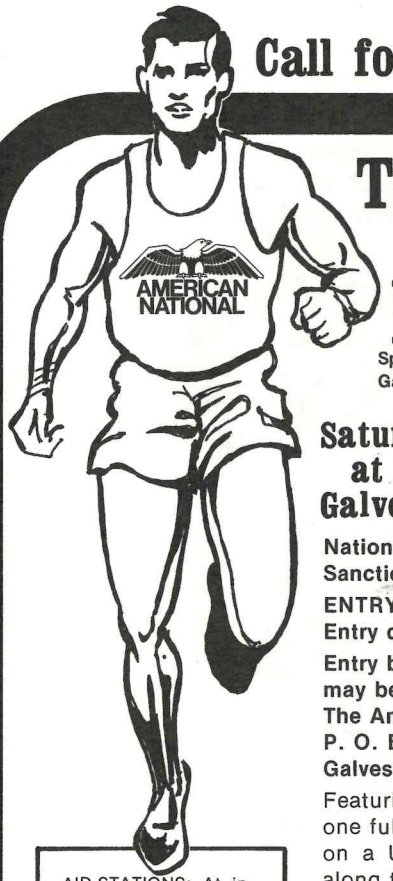
Earlier this year, I was running in downtown Reno, and some lout in a passing car leaned out the window and yelled, "Get a horse!" That sort of thing could never, but never, happen in Portland, Ore. Go out running in the City of Roses and chances are you'll pick up a few cheerful companions en route. Maybe even the mayor; he's a jogger.

Okay, those are the basics: Portland has a great emotional climate for running, and a soggy meteorological climate. Puddle City, we call the place. The summer months are generally dry and hot, but don't rely on it. If you're visiting here and you want to run, just do what we do: ignore the rain. Nobody has melted yet.

Where can you run in Portland? Let me first take care of the simplest situation, which I'll call Situation Number One: Let's say you're only here for a day or two, and because of business, you can't get far from the Portland International Airport. That's a bleak situation, but lucky for you it's not as grim as it might be in other cities. The airport happens to be on the Columbia River, which is a large body of flowing water.

Here's what you do: get a street map of town and find the airport on it. Then find N.E. Marine Drive, which is ridiculously close. That's your route. You can run either direction as far as you want on Marine Drive with no fear of getting lost, mugged or chased by dogs, and you'll have a river view all the way—houseboats, barges and watery things like that. All in all, considering the circumstances, your prospects are not too shabby.

Situation Number Two: you're in Portland, staying at a downtown ho-



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tel, and you don't have wheels at your disposal. Surprise—you don't even have a problem. Here's what you do: run through the South Park Blocks, cut over to SW Fifth Avenue (check your street map) and you'll end up at Duniway Park, which conveniently happens to be the jogging rendevous for half the town. No kidding—Duniway Park is at most a 10-minute jog from the heart of downtown. Handy? You won't believe it until you see it. I'll tell you more about it in a minute.

Situation Number Three: You're visiting in Portland with plenty of free time and your own transportation. In that case, the world is your oyster. Let me give you the lay of the land...

Imagine two rivers that flow together in the shape of a capital T. The one flowing from south to north, that's the Willamette. The one flowing from east to west is the Columbia. North of the Columbia (above the crossbar on the T) is the state of Washington, which is a fine state but we won't concern ourselves with it here.

South of the Columbia (below the crossbar) is the city of Portland. If you're still with me—and you ought to be, because I've fudged a bit to make this simple—you'll notice that Portland is split down the middle by the Willamette River. This results in an east side of town and a west side of town. At the risk of getting a few dirty looks at the next road run I enter, I'm going to suggest that you ignore the east side of town, which is flat and boring.

(Okay, I'll make two exceptions. One, Mt. Hood Community College, way the hell out in Gresham near the Sandy River, is a hotbed of road running; inquire locally. Two, Mt. Tabor Park, closer in on the east side, covers 200 acres on the site of an extinct volcano; it's pretty, with uphills and downhills.)

That gets us to the west side of Portland, which I'll discuss after two quick digressions.

First digression: High school tracks, city parks and golf courses are scattered all over town. Feel free to explore.

Second digression: I'm only talking about Portland here, not the whole state of Oregon. But it would be remiss not to mention: 1. The city of Eugene, 100 miles south, which is the home of the University of Oregon, and the Bill Bowerman tradition, and is Oregon's red-hot center for jogging and road-running;

2. The town of Seaside over on the coast (clever name, huh?), which hosts the Trail's End marathon every February and the frolicsome seven-mile beach run every August, both overwhelmingly successful;

3. And for running trivia buffs, the Eastern Oregon cowboy town of Spray (that's way, *way* out in the boonies) which, with a scant population of 180, manages to host a popular half-marathon every May, surely the smallest town anywhere to do so.

The point is that, yesiree, there's a lot of running in Oregon, with track clubs in half-a-dozen cities. In Portland, membership in the Oregon Road Runners Club (ORRC) has jumped from 70 to more than 500 during the last 15 months, and it's still growing. Scarcely a weekend passes without a road run scheduled somewhere in the state, almost all of them within easy reach of Portland.

Okay, back to the west side of town... Immediately behind downtown Portland rises a forested outcropping known as the West Hills. In the hills, you can run for weeks without retracing your trail, but I'm going to suggest one specific route as the handiest.

Duniway Park, which I mentioned earlier, lies at the foot of the West Hills. It has a good rubber-asphalt track if you want to do interval work or rub elbows with the locals who show up there all day long. Its proximity to downtown is what makes it such a popular spot.

But it's also the trailhead, as it were, for a new bicycle path which leads up into the hills, dipping and rising as it climbs several hundred feet in elevation. The bike path parallels slinky Terwilliger Boulevard for 2.6 miles without interruption (and continues another 0.8 miles after crossing one intersection at a stoplight).

Here's what the bike path offers: a paved trail underfoot (with our wet climate, that's no small bonus); a five-mile roundtrip absolutely free of traffic; a chance to do hill running; relaxing views of the Willamette River below you, and on clear days, magnificent views of looming Mt. Hood; a route so overgrown with trees, ferns, bushes and grass that your major hazard is exposure to an overdose of chlorophyll; and it begins, as I said, about a 10-minute jog from downtown. Try it; you'll like it.

There's a much better spot on the west side, but the trails are a little tricky to find so you'll probably need a native to guide you. The place is called Forest Park and—are you ready?—it's a 7000 acre semi-wilderness preserve, reputed to be the largest park of its kind in any city in the United States. There are about 30 miles of trails criss-crossing in the park, and brevity compels me to say only this: at any season except the dead of winter, it's the closest place you'll find to Runner's Heaven within any city limits anywhere. It's not called *Forest* Park by accident.

One final place, because the timing of this issue lets me put in a plug. Twelve miles northwest of Portland, where the Willamette River actually flows into the Columbia (see, I told you I fibbed a little), is a large, flat island called Sauvie Island. The island is mostly in agricultural production, but it's on a waterfowl flyway and also has several dozen duck ponds and other rustic attractions. During the year, more than 200 species of birds show up, and in peak months there will be up to 500,000 birds hanging around.

Well, this is no place for a nature study. Suffice it that Sauvie Island is a pastoral wonderland. Nice for running? You bet. The route is a 12-mile loop road, and on Nov. 30 it will be the site (two loops and a dogleg) of the third annual Island marathon. If you're in the area, don't miss it. It's a flat, crispy-air, traffic-free course, and the ORRC does a bang-up job of putting the run together.

There were about 170 finishers in 1972 and 1973, and race director (and ORRC president) Bill Gorman says this year he's looking for upwards of 500. The ORRC does a thorough job of preparation, and just to make sure the run comes off like clockwork, they require runners to pre-register.

(Race information in Oregon is available from ORRC, c/o Ken Weidkamp, secretary, 14230 SW Derby St., Beaverton, OR 97005.) •

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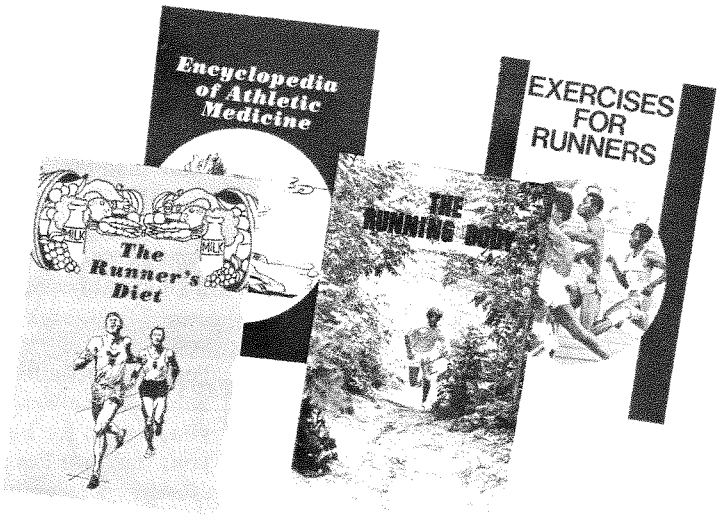

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THIRD ANNUAL ODESSA MARATHON—December 14, 1974, Odessa, Tex. USTFF sanctioned, course AAU certified. Accompanying eight mile race around 4 mile loop for the "shorter set." Marathon: flat, out & back course, well marked and easy to follow; 7 aid stations. Certificates to all finishers, nice awards to top finishers. In 1972, Polaroid cameras; 1973, trophies and merchandise. Winners: 1972 Mike Pinocci, Fremont, Calif. (Odessa College) 2:39:37; 1973, Mike Albert, Ft. Worth, Tex. (Howard Payne College) 2:38:02 (record). Masters: 1973, Gene Uselton, Lubbock, Tex. (age 43) 3:00:51. $2.00 entry fee before Dec. 10; $3.00 late entry. Sponsors: West Texas Running Club and The Darville Company. For all details, send self-addressed stamped envelope to Jack Petty, 907 W. 2nd St., Odessa, TX 79763.

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NATIONAL AAU MASTERS 10 Kilometer Cross-Country Championships—El Dorado Park, Long Beach, Calif., Sunday, Nov. 17, 1974. Age level awards, masters team championship. Entry blanks available from: Sam Nicholson, 4946 Frederick, LaCrescenta, CA 91214.

MISSION BAY MARATHON—Saturday, January 11, 1975. Get your fastest time...and enjoy the effort on Mission Bay's flat, fast, scenic course. E.R.G. given at 2½-mile aid stations. Unique awards in Open, Women, Junior, Veteran, Master and 60+ divisions. Chronograph watches to sub-2:17 runners and watches to first veteran under 2:30 and first woman under 2:58. T-shirts to all under 4 hours. Entries close Jan. 6. Mission Bay Marathon, 5946 Wenrich Dr., San Diego, CA, 92120.

MASTERS & SUB-MASTERS (30+)—Schedule of cross-country, indoor & outdoor Masters races plus information on dual meet with British Masters May '75. Send self-addressed stamped envelope to Masters Sports Assoc., 11 Park Place, New York, NY 10007.

MARDI GRAS MARATHON — New Orleans, February 1, 1975. Come and run; stay and play in "the city that care forgot." AAU certified; T-shirts, post-run meal. Write for entry blank: Dreux Summers, 549 Brookmeade Dr., Gretna, LA 70053.

NEW ORLEANS TRACK CLUB ANNUAL 15 MILE RUN—December 21, 1974. Open to all AAU members; certified course. Trophies. Commemorative T-shirts. For information, entry blank, write: J.D. Shaffer, 7603 May Fair Place, New Orleans, LA 70126.

APPLICATIONS are being accepted for qualified dietitians and/or nutritionists to work under the direction of medical staff. Must be runners of any performance level. For information: Runner's Mecca, Box 2186, Mesa, Ariz. 85204.

3RD ANNUAL GOLD COAST MARATHON—Boca Raton, Florida. Sunday, January 26, 1975, 7:30 a.m. 3 loops, flat course. Awards: 12-13; 14-15; 16-17; 18-29; 30-35; 36-40; 41-45; 46-50; 50-60; 70 & over; first female; entrant traveling longest distance. Also ½-marathon at same time with awards. 1974 winner & CR: Wes Bruner, 2:36. Contact Ray Russell, 208 SE Sixth St., Ft. Lauderdale, FL 33301 (365) 563-6850. (Party after race.)

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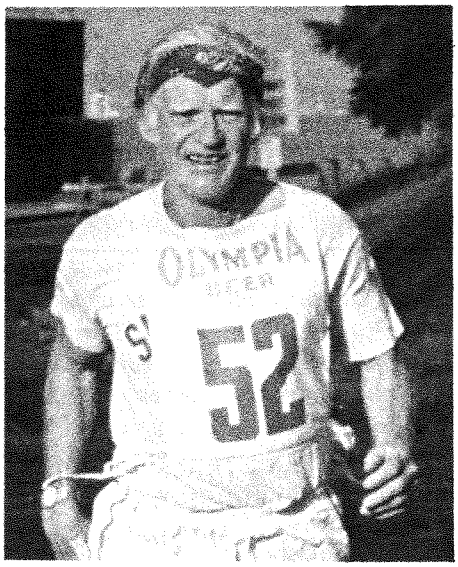
Looking At People



Norman Bright

• **Norman Bright**'s faith in his fellow runner was justified. When we read his "Lost and Found" note in the August issue, asking that someone please return his flight bag and $400, we said, "fat chance!" Now Norm reports, "My old New Zealand Airline bag that I handed to a Mr. Morris at the Boston marathon arrived by airmail from Hawaii—all intact. Even the orange I must've tucked in the day of the race was there, though a bit disfigured with age."

• **Dr. Alphonse Juilland** is a professor at Stanford University and the author of more than a dozen scholarly books. He also is one of the fastest over-50-year-old sprinters in the world. What makes him sprint? Juilland gave this explanation to San Francisco *Examiner* writer **Lowell Cohn**:

"A deep-seated frustration, something like an unconsummated love affair. It's the old story of the teenager who falls desperately in love and nothing comes of it. But he never forgets his youthful love and decades later runs into her. Although she's past her prime, to him she's still desireable. He promptly loses his head again.

"Give or take a little, that's track for me. I started when I was 16. World War II put a stop to it shortly after. If I had had a chance to develop, to compete, to break a few records, to make the 1942 European Championships (Juilland is French) or the aborted 1944 Olympics, that would have been that. But it wasn't to be, and I was left with this longing. Here I am, a man in his 50s who conceals a teenager's dream in his heart.

"Granted, it's a sort of infantilism. To grow psychologically, you have to live certain things. If you don't, your development is arrested at one stage or another. So I'm stuck with this infantile complex. But it doesn't bother me. Maturity isn't so much a complete psychological development as it is an awareness of where you are."

• **Al Jones**, a Marine recruting officer from Portland, has a thing about exotic world records. He set three this summer: lifting half his body weight overhead continuously for 20 hours for a total of 60 tons; a 100-mile swim in 35 hours; 27,000 non-stop situps. What next? A pentathlon to mark the 199th anniversary of the Marine Corps, Nov. 10.

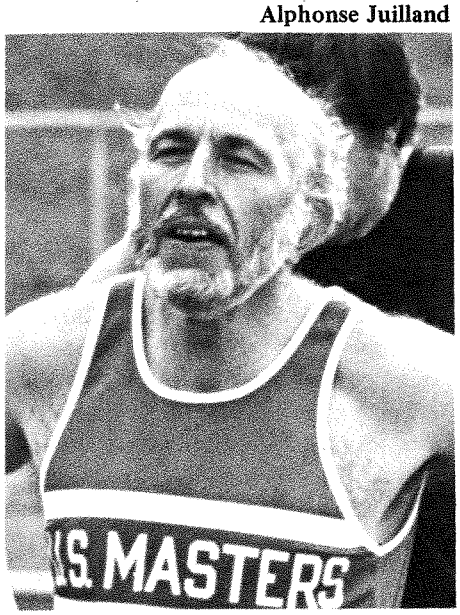
Jones reports, "The pentathlon starts at Pendleton, Ore., in the Eastern part of the state with a 199-mile run to the west along Interstate 80. The competitors will have 48 hours to complete the run. The second event will be a 19.9-mile swim on the Columbia River, followed by lifting overhead a 100-pound barbell 199 times. The fourth event is 1990-bent-legged situps, followed by 199 pullups."

The entry is $199 for non-smokers, $1990 for smokers, with proceeds going to the Oregon Lung Association.

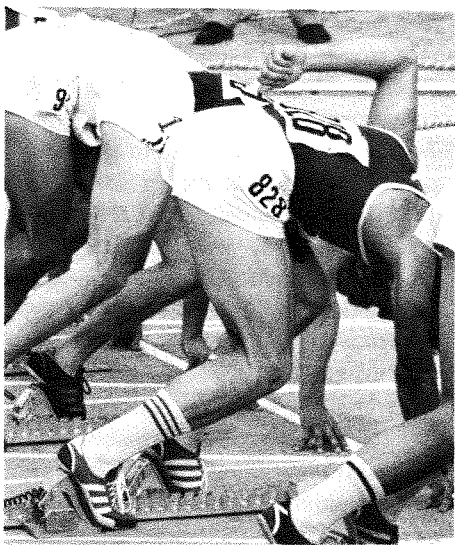
• **Jack Greenwood**, a 48-year-old sprinter/hurdler from Kansas, rated some attention in the September article on the AAU Masters championship. Greenwood won five events at the Gresham, Ore., meet—and finished with a 50.8 leg on the 1600-meter relay.

• **Norm Higgins**, a 2:15 marathoner and now an age-group coach in Connecticut, was on a Sunday run with one of his youngsters, Jan Merrill. A state trooper stopped them, let the girl go free, then cited Higgins. For "loitering!" A Connecticut law prohibits pedestrians from walking or running within 50 feet of a state highway. But loitering?

Alphonse Juilland



• **Steve Van Camp** wrote "top this..." in the August magazine, and listed his feat of running in California, Hawaii and Japan the same day. Jim Hellinger of New York didn't exactly top it, the shipping executive did modestly note that he had run on six continents during one month: in his neighborhood, London's Hyde Park, on the grounds of the Intercontinental Hotel in Bangkok, at various places in Australia, at Zoo Lake in Johannesburg and at San Martin Plaza in Buenos Aires.



Valeriy Borzov

• An injured thumb wouldn't be too serious a complaint for a long distance runner, but to a sprinter who starts hands-down it could cause complications. **Valeriy Borzov** has had a bad thumb most of the year, and has been forced to use a one-handed stance in the blocks. Borzov repeated as European 100-meter champion, starting one-handed in the heats but returning to the conventional style in the final.

• **Richard Impola** tells of a somewhat embarrassed man who approached a group of runners showering after the Berkshire Masters five-mile race in Westfield, Mass. He asked if he and his wife could use the showers. The group said sure, we don't mind, and went on showering. The man explained he preferred that the other men wait outside for a few minutes. As the runners cleared out, one commented, "I'm 63 years old and have just run a five-mile race. What are you afraid of?" •

by George Sheehan M.D.

MEDICAL ADVICE

SALT

Q: Some people tell us to use salt tablets, some say avoid them completely. Would you settle this question once and for all? (J. L., Ohio)

A: Like all discussions of half-truths, the "salt-tablet" question will never be settled. Heat syndromes are complicated problems and the physiology involved is often confusing. For this reason, you usually see less than the whole picture presented.

The best we can do in this matter is to assign priorities. Water first. Without it, you can die. Without any other presumably essential element, the worst you can have is muscle cramps.

Water first, adequate fluid replacement. Next comes salt and/or potassium. Which one? Probably salt. The unacclimatized athlete has considerable salt in his sweat, but not that much potassium. The acclimated athlete loses less salt and more potassium, but he also handles heat better and needs electrolytes less.

Salt is simply part of a total prescription for heat, not the whole answer.

MUSCLE TWITCH

Q: Two years ago, I developed fasiculations in both my legs, from below my knees to my toes, that have not ceased yet. A neurologist and two family internists just smile and shake their heads and say keep running. I wonder if any other runners have had similar problems. (L. L., Tennessee)

A: Fasiculations, or rippling of the muscles due to contractions, are a common finding in the hours following a long run. However, few runners to my knowledge have them continually. The exact cause of this muscle irritability is not known. Why you are even more susceptible is an even deeper mystery.

Needless to say, fasiculations are no reason not to run. If more serious evidence of muscular irritation or even muscular destruction (dark brown urine) should occur, it would warrant investigation.

You might try good doses of vitamin C, calcium or vitamin E, all of which have been recommended for muscle cramps. It would be interesting to see if they have any effect.

KIDNEYS

Q: Several years ago, I had one of my kidneys removed. I am wondering if in any way this would affect my performance or ability as a runner. (T. M., Washington)

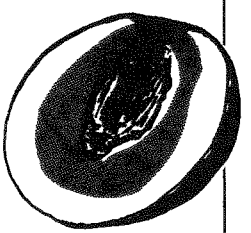
A: I see no reason why having only one kidney will affect your performance. You should avoid contact sports like football or hockey. But running is not only a safe and acceptable activity, it is also one which does not depend on two kidneys.

DIARRHEA

Q: I get severe gastric disturbances whenever I run long distances. I ran my first marathon last March and had to stop three times on account of diarrhea. The second marathon, I took Kaopectate before the run. It helped somewhat, but I still had to stop twice and I felt sick the whole time. In my third marathon, even though I felt fitter than ever, I had to quit midway because of intense gas pains. (M. S., Pennsylavnia)

A: I'm hearing from more and more runners who get gas pains and diarrhea during long races. Most have attributed it to an irritable colon. My own experience is that the irritable colon is not enough to cause the problem. I have this condition and have had severe diarrhea on only one occasion—when I took a quart of milk and a quart of orange juice for my pre-race meal!

Twelfth Annual



Peach Bowl Marathon

Saturday, December 21, 12 Noon

75 trophies awarded • awards to all finishers under 4 hours • team trophies • early entry fee $2.00 • after 12/17, $3.00 • for entry blanks and further information, send self-addressed stamped envelope to • Tim Singleton • Georgia State University • University Plaza • Atlanta, GA 30303 •

I think you shouldn't deviate significantly from your normal foods the day of the race. Most of us try different pre-race meals instead of sticking to our usual breakfast and foods we know don't bother us. Coffee is a stimulant to bowel action, however, and should be avoided.

Milk, for those who don't particularly care for it, can be a real troublemaker. In special instances, wheat and grain products can cause diarrhea.

Some people have diarrhea occurring reflexively from high stomach acid. Use of Tums or Rollaids just prior to a race may then be helpful.

HEARING

Q: I've noticed that during long or hard runs, my power of hearing decreases. What causes this? Is it a common occurrence? (J. J., California)

A: I think your hearing loss results from blockage of the eustachian tube. This passage connects the nasal passage to the middle ear to allow equalization of pressure. It is the reason you can swallow and clear your ears when you go up and down in an elevator.

Apparently, prolonged and intense breathing can cause swelling around the opening in the nasal passage and block it. I have experienced this blocked feeling plus a sensation of water in my ears after particularly strenuous or competitive runs.

Use of a nasal spray prior to or immediately after running may help. I get relief from bending over and holding my head down for a few seconds. Swallowing with the nose pinched is sometimes helpful.

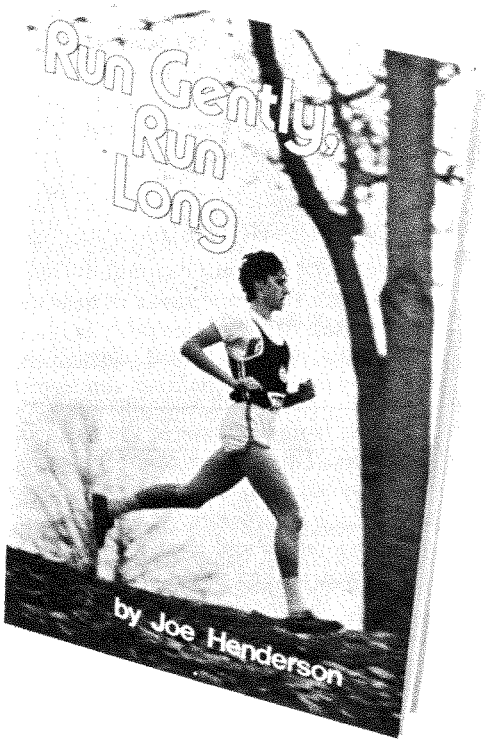
TIME OF DAY

If you're looking for a personal best, compete in the evening. Studies at the Royal College of Surgeons in Ireland showed maximum performance for 30 athletes occurred between five p.m. and 7 p.m. All six runners tested did better in the evening than in the morning between 7 a.m. and 8 a.m.

Previous research has also suggested this. Voight, Engel and Klein have shown a peak performance pulse index between 4 p.m. and 6 p.m. And Crockford and Davies have reported a peak between 4 p.m. and 8 p.m. in response to sub-maximal exercise on a bicycle ergometer.

(References: Conroy, R.T.W.L., and O'Brien, M., *Proc. 2nd FINA Conference*, Dublin, 1973; Crockford, G. W. and Davies, C. T. M., *J. Physio.* 201:94-95, 1969; Voight, E. D., Engel, P., and Klein, H., *Germ. Med. Mthly.*, 12:394-395, 1967.) •

Run Gently, Run Long



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He writes about his own running, and about principles that apply to *all* running.

He writes "a little about racing success and how to achieve it, but mostly about running longevity and how to last."

He writes about "fleeting things and lasting things" in the sport.

He writes a plan for "those of us who look at running as too good to throw away, who have this vision of what running can be, and know if we run for fun we can run forever. This book is to help us keep the vision in focus."

NOW THE READERS ARE SAYING WHAT THEY THINK OF HENDERSON'S BOOK...

Frank Greenberg, Philadelphia, Pa.—*"So much applies to me! No doubt the type who competes will receive the book as a good work. But to those in my class, who run for solitude, release, to recapture the smells and sounds and the high after exercise this can be a statement of what it's all about..."*

Dr. Victor Altshul, New Haven, Conn.—*"I had come to look upon my running needs in much the same way, and it was a pleasure to find my own views so lucidly and poetically expressed..."*

Dr. Gordon Schafer, Holt, Mich.—*"The day the book arrived it created turmoil for my routine. I was so interested that I had my nose in that book between patients, during meals, while waiting for red lights during driving. I finished it the same night (really early morning) during a post-bedtime raid on the refrigerator. If I could read while running, I would not have needed that post-midnight session..."*

Jeff Johnson, Newton, N.H.—*"I've just read* Run Gently Run Long*...It is extremely readable, well organized, beautifully prepared and consistently sane..."*

DECEMBER COMING EVENTS

NORTHEAST

1 Philadelphia marathon, Philadelphia, Pa. (Fairmount Park; noon; open; Tom Sander, 515 W. Godfrey Ave., Philadelphia, Pa. 19126).

15 Delaware Sports Club Marathon, Wilmington, Del. (noon; open; Thomas H. Fort, Delaware Sports Club, P.O. Box 226, Wilmington, Del. 19899).

15 Dixon Marathon, Chester, Pa. (11 a.m.; open; H.C. Durney, Track Coach, Widener College, Chester, Pa.).

SOUTHEAST

1 3¼-mi., St. Petersburg, Fla. (10 a.m.; Tom White, 1250 Jungle Ave., St. Petersburg).

7 Junior Olympic Cross-country, Raleigh, N.C. (ages 9-17; AAU House, 3400 W. 86th St., Indianapolis, Ind. 46268).

7 Red Mile 10-mile (open; Bluegrass RC, Univ. of Ky., Athletics Assoc., Memorial Coliseum, Lexington, Ky. 40502).

21 Mardi Gras Mini-Marathon 15-mile, New Orleans, La. (open; New Orleans TC, 231 E. Livingston Pl., Metairie, La. 70005).

27 Melbourne Marathon, Melbourne, Fla. (8 a.m.; open; Carl Meyer, Melbourne Recreation Dept., Melbourne, Fla. 32901).

28 Peach Bowl Marathon, Atlanta, Ga. (Westminster School; noon; open; Tim Singleton, Dean of Men, Georgia State U., Atlanta, Ga. 30303).

MIDWEST

1 North Central Marathon, Naperville, Ill. (Merner Fieldhouse; 11 a.m.; open; Robert Schrader, Asst. Track Coach, North Central College, Naperville, Ill. 60540).

7 Mo. Valley AAU 30-kilometer, Columbia, Mo. (Cosmo Park; noon; open; Joe Duncan, 4004 Defoe Dr., Columbia, Mo. 65201).

29 Nat. RRC 50-mile Champ., Toledo, Ohio (Secor Park; 8 a.m.; open; Sy Mah, Univ. of Toledo, Toledo, Ohio 43606).

SOUTHWEST

7 Gulf AAU 30-kilometer, Houston, Tx. (Pete League, 5471 Jackwood St., Houston, Tex.).

14 Odessa Marathon, Odessa, Tex. (Nimitz Jr. High; 9 a.m.; open; West Texas RC, 907 W. 2nd, Odessa, Tex. 79763).

20 Fiesta Bowl Marathon, Phoenix, Ariz. (9 a.m.; open; Tom Harris, 350 N. First Ave., Phoenix, Ariz. 85003).

WEST

1 Western Hemisphere Marathon, Culver City, Cal. (8 a.m.; open; Carl Porter, 4117 Overland Ave., Culver City, Cal. 90230).

7 Livermore Marathon, Livermore, Cal. (open; Dan Moore, 663 Jefferson Ave., Livermore, Cal. 94550).

14 Madera Marathon, Madera, Cal. (10 a.m.; open; Dee Dewitt, Madera High School, Madera, Cal. 93637).

15 Honolulu Marathon, Rim of the Pacific, Honolulu, Hawaii (6:30 a.m.; open; Don Barrell, 1459 Olino St., Honolulu, Hawaii, 96818).

21 AAU Nat. 25-kilometer Champ., San Diego, Cal. (Bob Johnson, 2636 Grand No. 304, San Diego, Cal. 92109).

21 National AAU Jr. 8-kilometer Cross-country, San Francisco, Ca. (Golden Gate Park; Bob DeCelle, P.O. Box 1606, Alameda, Calif. 94501).

21 National AAU 25-kilometer, San Diego, Cal. (Mission Bay Park; 10 a.m.; open; SDTC, P.O. Box 1124, San Diego, Cal. 92112).

? AAU Jr. Women's Cross-Country, San Mateo, Calif.

ROCKIES

14 Holiday Marathon, Pueblo, Colo. (Pueblo County H.S.; 10 a.m.; open; Jeff Arnold, Rt. 5, Box 226, Rye, Colo. 81069).

15 Las Vegas 13.2-mile, Las Vegas, Nev. (El Cortez Motel; 9 a.m.; open; Bill Freedman, Las Vegas TC, P.O. Box 869, Las Vegas, Nev. 89101).

28 Last Chance 8-mile; Salt Lake City, Utah (Jan Cheney, 289 So. 200 E., Kaysville, Utah 84037).

CANADA

7 10-mile, Toronto, Ontario (High Park–Lakeshore Blvd.; 1 p.m.; open; Bill Marcotte, 44 Indian Rd., Toronto, Ontario, Canada).

INTERNATIONAL

3 International Marathon, Fukuoka, Japan.

WALKS

15 Gulf AAU 20-kilometer Walk, Houston, Tex. (Memorial Park; 10 a.m.; open; John Evans, 4011 Old Galveston Rd., No. 133, Houston Tex. 77017). ●

Statement of Ownership, Management and Circulation

Statement required by the Act of August 12, 1970; Section 3685, Title 39, United States Code showing the ownership, management and circulation of–

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B1. Paid circulation through dealers and carriers, street vendors and counter sales	1,800	2,514
B2. Paid circulation through mail subscriptions	15,360	19,060
C. Total paid circulation	17,160	21,574
D1. Free distribution by mail, carrier, or other means; samples, complimentary, and other free copies	53	57
D2. Free distribution by mail, carrier or other means; copies distributed to news agents but not sold	640	1,009
E. Total distribution	17,853	22,640
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G. Total	18,464	23,600

I certify that the statements made by me above are correct and complete.

John R. Anderson
Publisher

RACING HIGHLIGHTS

NORTHEAST

● **Rochester, N.Y., Sept. 2**—Rochester marathon: 1. Willie Speck (24, B.A.A.) 2:29:09; 2. Chris Chambers (27, Sugar Loaf Mt. AC) 2:34:32; 3. Larry Frederick (25, N.Y. A.C.) 2:41:37; 4. Jim Ferris 2:44:00; 5. Tom Doehler (R.T.C.) 2:46:40... 37. Richard Kendall (47) 3:01:13... 25. Rodney Carter (51) 3:17:12... 58. Sandra Patla 4:28:26. (64 finished, 12 under 3:00; 35 under 3:30, 50 under 4:00; from Len Bagley).

● **Westport, Conn., Sept. 2**—Westport Labor Day 10.4-mile: 1. Bob Hensley 52:41; 2. Norb Sanders (M.A.A.) 53:04; 3. Caris Cherubins 54:31; 4. Blair Bartaccini 55:28; 5. John Hastings (F.C.S.) 55:30... 11. Pat Bastick (M.A.A., 40) 57:10... 53. George Sheehan (55, S.A.C.) 1:05:14... 74. Frances Goulart 1:08:51. (147 finished, 25 under 1:00).

● **Mt. Gretna, Pa., Sept. 8**—Gov. Dick 6-mile: 1. Dave Patterson 31:12; 2. Bill Dawson 32:13... 19. John Schwanger (48) 41:27. (55 finished).

● **Westfield, Mass., Sept. 15**—Berkshire Masters 5-mile: (ages 40-44) 1. R. Gaff (40) 26:49; 2. S. Moulton (40) 27:04; 3. V. Fandetti (43) 27:07; 4. C. Dyson (40) 27:09; 5. B. Squires (41) 27:30. (63 finished). (ages 45-59) 1. T. Sapienza (46) 27:06; 2. C. Hanson (45) 27:51; 3. H. Rubin (46) 27:56. (48 finished). (ages 50-54) 1. T. Walnut (50) 29:23; 2. F. Kelley (52) 30:00; 3. A. Hossack (52) 30:06 (39 finished). (ages 55-59) 1. George Sheehan (55) 30:34; 2. E. Osborne (57) 31:12. (26 finished). (ages 60-64) 1. F. Goodnow (61) 35:13; 2. Sienkiewicza (61) 36:14. (9 finished). (ages 65-69) 1. J. Kelley (67) 31:47; 2. O. Essig (68) 34:22. (9 finished). (ages 70 and over) 1. F. Sargent (71) 41:44 2. M. Cavanaugh (77) 43:31. (4 finished).

● **Paul Smiths, N.Y., Sept. 21**—Paul Smith's College Marathon: 1. Jim Ochse 2:44:00; 2. Jim Patterson 2:46:00... 6. Vlastimil Zak (40+) 3:13:33. (12 finished, 4 under 3:00, 8 under 3:30; 9 under 4:00; from Tom Agan).

● **N.Y., N.Y., Sept. 22**—8-kilometer cross-country: 1. Morgan Fennel (23, Millrose AA) 25:09; 2. Tom Fleming (23, N.Y. A.C.) 25:16; 3. Jerry Staunton (22) 26:09; 4. Hugh Sweeney (29) 26:51; 5. Bill Bragg (25, N.Y. A.C.) 27:00... 10. Irving Fennell (18, Manhattan Coll.) 28:09... 32. Joe Burns (45) 30:28... 48. George Sheehan (55, Shore A.C.) 32:14. . (98 finished). Women: 1. Anita Scandurra (18) 32:21. (7 finished). (from Joe Kleinerman).

● **N.Y., N.Y., Sept. 29**—N.Y.C. marathon: 1. Norbert Sander (31, Millrose AA) 2:26:30; 2. Art McAndrews (30, Boston A.A.) 2:28:16; 3. Larry Frederick (25, N.Y. A.C.) 2:32:18; 4. Arthur Hall (27, Oakwood TC) 2:35:01; 5. William Rodgers (26, Greater Boston TC) 2:35:59; 6. Hugh Sweeney (28) 2:37:26; 7. Michale Baxter (30, Boston AA) 2:37:31; 8. Mike Scarbrough (19, East Coast AC) 2:41:00; 9. Kevin McDonald (24, No. Jersey Striders) 2:44:29; 10. Colin Beer (41, Shore AC) 2:45:10... 20. Don Dixon (47) 2:55:05... 39. Ted Corbitt (54, N.Y. Pioneer Club) 3:00:45... 59. Katherine Switzer (27, Central Park TC) 3:07:29... 101. Irving Taylor (60, Central Jersey TC) 3:23:44... 141. Elizabeth Franceschini (31) 3:36:18... 179. Faith Berriman (19) 3:55:06... 181. Ann DeGroff (39) 3:55:49. Teams: 1. Boston AA, 24 pts.; 2. Central Park TC, 42 pts. (199 finished, 37 under 3:00,125 under 3:30, 188 under 4:00).

SOUTHEAST

● **Atlanta, Ga., Sept. 7**—Peachtree-Battle 7-mile: 1. Wayne Roach 36:57; 2. Terry Cruze 38:06... Jim Montgomery (40+) 43:25... Karen Gamel 52:28.

● **Hammond, La., Sept. 14**—4-mile: 1. Vince Marino 19:31; 2. Taylor Aultman 19:51. (31 finished; from Cy Quinn).

● **Cades Cove, Tenn., Sept. 15**—Cades Cove-Smoky Mountain 10-mile: 1. Bill Haviland (23, Knoxville TC) 48:30; 2. Jim Buell (18, Univ. of Ky.) 48:57; 3. Max Hadley (22, Ky. Dist Club) 50:21; 4. Dave Bernardy (27, Ky. Dist. Club) 50:22; 5. Mike Haywood (25, Ky. Dist. Club.) 50:33; 6. Bob Bentz (20, Univ. of Tenn.) 50:38; 7. Dan Albert (20, Ky. Dist. Club) 50:41; 8. Dean Erdal (17, Univ. of Ky.) 50:52; 9. Tom Burridge (18, Univ. of Ky.) 50:52; 10. John Angel (21, Univ. of Tenn.) 51:32... Keith Kahl (44, Knoxville TC) 58:06... Charles Gibson (51, Chatt. TC) 58:23... Jane Hickman (20) 1:27:41. (131 finished, 28 under 55:00, 65 under 1:00).

● **Lynchburg, Va., Sept. 21**—Virginia 10-mile: 1. John Vitale 49:13; 2. Jack Bacheler 50:51; 3. Jeff Galloway 51:01... Bob Hormon 1:00:46... Gail Hafley 1:07:45... George Major (60+) 1:09:33. (181 finished).

● **Lexington, Ky., Sept. 28**—Bluegrass Invitational 5-mile: 1. Gary Romessor (Ind. Striders) 25:22; 2. Charles Copp (Bluegrass TC) 25:49. Teams: 1. Bluegrass RC, 27 pts.; 2. Eastern Ky. Univ. B, 29 pts. (23 finished, 6 under 28:00; from Jerry Stone).

● **New Orleans, La., Sept. 29**—5-mile: 1. John Mayfield 26:31; 2. Pete Soutullo 26:46; 3. John Winston 27:02; 4. Larry Fuselier (39) 27:21... 28. Tammy Spurgeon (15) 32:01. (81 finished).

MIDWEST

● **St. Paul, Minn., Aug. 31**—Bald Eagle Lake 10-kilometer: 1. Dave Erler (19) 31:00; 2. Garrett Tomczak (27) 31:12; 3. Pat McGuire (22) 31:19... 16. Duane Paterson (43) 35:00. (49 finished, 16 under 35:00, 35 under 40:00; from Chuck Burrows).

● **Chicago, Ill., Sept. 1**—Club North marathon: 1. Charles Burrows (26) 2:25:08; 2. Peter Elliott (27) 2:31:04; 3. Walter Crawford (25) 2:35:22... 7. Rob Nielsen (19) 2:56:21... 13. R.E. Bruce (53) 3:11:52... 20. Patricia McSwegin (31) 3:23:11. (33 finished, 8 under 3:00, 24 under 3:30, 29 under 4:00; from Donald Cohen).

● **Toledo, Ohio, Sept. 1**—National RR Postal one-hour run: 1. Craig Harms (23) 10m 691y; 2. Tom Fauble (18) 10m 456y; 3. Jim Harmon (47) 9m 954y... 14. Art Johnson (50) 8m 168y... 17. Marianne Lapoint (14) 6m 1401y. (14 finished).

● **Columbia, Mo., Sept. 2**—Heart of America marathon: 1. Lynn Lee (25) 2:41:47; 2. Martin Smith (25) 2:42:39; 3. Larry Aduddell (29) 2:44:25; 4. Lou Fritz (31) 2:44:32... 10. Rick Caracciolo (18) 2:53:02... 11. Tex Frazer (42) 2:53:12... 46. Lorn Gwaltney (55) 3:47:58... 49. Jean Madden (47) 3:51:48. (54 finished, 22 under 3:00, 37 under 3:30, 53 under 4:00; from Hardy Menees).

● **Bruce, S.D., Sept. 8**—Lake Oakwood 5.5-mile: 1. Ken Keehn (Phil. AC) 29:55; 2. Scott Underwood (Prairie St. TC) 30:43... 21. Jean Hruby (Prairie St. TC) 43:48. (21 finished, 10 under 35:00).

● **Newton, Ia., Sept. 14**—Ia. AAU 30-kilometer: 1. John Samore 1:41:33. (from John Stevens).

● **Chicago, Ill., Sept. 2**—13.1-mile: 1. Al Claremont (38) 1:10:56; 2. Pete Farewell (24) 1:11:58... Stan Bonk (40+) 1:44:22... Frank Waldeck (50+) 1:44:41... Marcella LeMire 1:47:23. (48 finished; from Wendell Miller).

SOUTHWEST

● **Tulsa, Okla., Sept. 7**—20-kilometer: 1. Randy Heierding (23) 1:05:01; 2. Dennis Eberhart (21) 1:05:23; 3. Ken Norton (23) 1:07:27... 7. Tom Kempf (50) 1:17:15... 8. Bruce Allen (18) 1:17:32. (27 finished, 6 under 1:15; from Vern Whiteside).

● **Dallas, Tex., Sept. 7**—11 ¼-mile road relay: 1. Tom Hardin (17) 20:18, Doug Wright (17) 19:38, Don Kennedy (26) 18:25, total 58:21; 2. Murr (15) 20:28, Elwonger (15) 20:20, Lautenslager (16) 19:20, total 1:01:03. (46 teams finished).

ROCKIES

● **Eden, Utah, Sept. 2**—Garden of Eden 11-mile: 1.Scott Bringhurst 58:13... Ron Molin (40+) 1:12:20... Harry Mangus (50+) 1:42:27... Karen Skidmore 1:52:00. (62 finished; from Jan Cheney).

● **Brigham City, Utah, Sept. 7**—Peach Days 11.1-mile: 1. Scott Bringhurst (26) 57:04; 2. Claude Neuenshwander (20) 59:43... 5. Bruce Tapola (18) 1:03:37... 32. Arlen Horne (40) 1:22:23... 45. Karen Skidmore (22) 1:41:46. (46 finished, 2 under 1:00, 9 under 1:05).

WEST

● **Kent, Wash., Aug. 31**—National AAU 50-kilometer Champ.: (marathon time in parenthesis) 1. Kaj Johansen (29, SDTC) 2:57:00, (2:28:15); 2. David Cortez (16, RCS) 3:00:28, (2:31:25); 3. Frank Bozanich (30, SDTC) 3:02:24, (2:30:53); 4. Carlos Alfaro (24, ATC) 3:05:48, (2:34:00); 5. Jim Pearson (30, STC) 3:10:29, (2:39:42); 6. Howard Miller (47, STC) 3:18:07, (2:45:53); 7. Don Choi (26, ETC) 3:24:21, (2:49:30); 8. Ed Almeida (52, SDTC) 3:24:46, (2:48:20);

9. John Hardtla (37, STC) 3:25:13, (2:52:50); 10. Matt Henderson (25) 3:27:00, (2:53:00); 11. Walt Wesmoreland (35) 3:27:56, (2:51:43); 12. Russell Fuller (21) 3:34:49, (2:59:52). Teams. 1. San Diego TC, 10 pts.; 2. Snohomish TC, 16 pts.; 3. Redwood City Striders, 21 pts. (22 finished, 15 under 4:00, 21 under 5:00).

• **Diamond Lake, Ore., Sept. 2**—11.5-mile: 1. Ray Hatton (40+) High Desert AC), and Mike Devecka (High Desert AC) 1:03:06. (28 finished, 6 under 1:10; from Stan Stafford).

• **Corvallis, Ore., Sept. 7**—Heart of the Valley 7-mile: 1. Cliff Thomson (30+) 37:29; 2. Dirk Feenstra (jr.) 38:22... 14. Bob Bard (40+) 47:40... 24. Jean Irvin 55:49. (from Bob Bard).

• **Stinson Beach, Cal., Sept. 8**—Double Dipsea:, 13.6-mile: 1. Homer Latimer (35) 1:43:37; 2. Dave Robertson (22) 1:51:04; 3. Jim Barker (27) 1:54:34... Jim Nicholson (43) 1:59:15... Debbie Rudolph (13) 2:13:52. (157 finished; from Walt Stack).

• **Honolulu, Hawaii, Sept. 8**—Hawaiian AAU 10-kilometer: 1. Duncan Macdonald 32:00; 2. Gordon Haller 32:22; 3. Mark Stanforth 32:58... 13. Lars Cole (14) 36:50... 22. Carlos Mora (44) 38:42... 32. Cindy Dalrymple 40:55... 33. Joe Goo (50) 40:59... 57. Bud Deacon (62) 45:29. (81 finished; from Tom Ferguson).

• **Santa Monica, Cal., Sept. 14**—50-mile: 1. Joe Burgasser (36, STC) 6:04:38; 2. Andrew Levinson 6:09:40; 3. Truman Clark (38, BHS) 6:21:03; 4. Bennet Lundqvist (SMTC) 6:32:56; 5. Eileen Waters 6:55:26; 6. Donna Gookin (37) 7:12:50; 8. Del Linam (42) 7:28:59. (12 finished).

• **Las Vegas, Nev., Sept. 14**—Sunset 5-mile: 1. B. Weaver 25:44; 2. J. Osburn 26:46. (31 finished; from Tommy Hodges).

• **San Francisco, Cal., Sept. 15**—Pa-AAU 25-kilometer: 1. Ron Wayne (25, Ore. TC) 1:18:54; 2. George Stewart (24, WVTC) 1:19:25; 3. Bill Clark (30, WVTC) 1:19:41; 4. John Hayes (26) 1:22:44; 5. Jim Howell (30, WVTC) 1:23:28; 6. Chris Berka (20, WVTC) 1:23:41; 7. Mike Conroy (20, WVTC) 1:23:41; 8. Dave Himmelberger (28, WVTC) 1:24:01; 9. Daryl Zapata (29, WVTC) 1:24:43; 10. Gordon Haller (24, Mid-Pacific) 1:24:47; 11. Jim Barker (27, Monterey-Peninsula) 1:24:53; 12. Jim Sane (16, Cordova Dusters) 1:25:09... 25. Jim Shettler (41, WVJ & S) 1:29:34... 83. Jeannette Cotte (13) 1:48:53. Teams: 1. WVTC, 16 pts.; 2. Pamakids, 50 pts. (138 finished, 25 under 1:30, 74 under 1:45; from Harold DeMoss).

• **Fairbanks, Alas., Sept. 21**—Equinox Marathon: 1. Nat Goodhue (34) 3:02:11; 2. Forrest May (18) 3:09:29; 3. Pete Haley (42) 3:20:19... 27. Marcie Trent (56, Pulsators) 4:14:20. (458 finished, 18 under 3:30, 37 under 4:00; from Paul Vanture).

CANADA

• **Shelburne, Nova Scotia, Aug. 31**—Nova Scotia marathon: 1. Harry Welles 2:41:13; 2. Charles Ratti (40+) 2:47:27. (14 finished, 5 under 3:00, 12 under 4:00; from Bob Waugh).

• **Etobicoke, Ontario, Sept. 8**—MTRRA 15-mile: 1. Bob Moore (TOC) 1:22:33; 2. Bruce Dewsberry (Tor. West T.) 1:24:00... 7. Cliff Hall (48, MTFC) 1:29:31. (40 finished, 7 under 1:30, 20 under 1:40; from Mike Freeman).

• **London, Ontario, Sept. 29**—Springbank International Road Races: (11½-mile) 1. Miruts Yifter (Eth) 55:17; 2. Neil Cusack (Ire) 55:22; 3. Jon Anderson (Ore. TC) 56:00; 4. Jerome Drayton (Tor. O. C.) 56:13; 5. Paul Baldwin US, Golden Triangle TC) 56:24; 6. Dick Buerkle (US, NYAC) 56:40; 7. Kenny Moore (US, Ore. TC) 56:48; 8. Ron Wayne (US, Ore. TC) 57:10; 9. Brian Armstrong (Tor. O. C.) 57:15; 10. Dan Shaughnessy (Tor. O. C.) 57:40. (4.3-mile) 1. Grant McLaren (Tor. O.C.) 19:46; 2. Garry Bentley (Aus., Prairie St. 19:56; 3. Chris Ridler (W. Ky. U.) 19:59; 5. Tony Staynings (W. Ky. U.) 20:01; 6. Dennis Williams (E. N.M. U.) 20:09; 7. Dave Long (W. Ky. U.) 20:14; 8. Philip Ndoo (Kenya, E. N.M. U.) 20:24; 9. Karl Thornton (Phil. Pioneer AC) 20:25; 10. Bill Marcotte (Tor. O. C.) 20:28; 11. Peter Hallop (US, Golden Triangle TC) 20:29. (4.3-mile, women) 1. Thelma Wright (Can.) 23:16; 2. Debbie Mitchell (Tor. O.C.) 24:21; 3. Katy Schilly (US) 24:22; 4. Claire Morgan (Tor. O. C.) 24:28; 5. Joann McKinty (Can.) 25:30. (5¾-mile, masters) 1. John Doyle (Windsor Y) 30:31; 2. Art Taylor (Kitchener) 30:47; 3. Bob Bowman (London Western TC) 30:48; 4. Bill Allen (Metro Toronto Fitness) 30:50; 5. Bryan Martindill (Hamilton Olympic) 31:05.

• **Montreal, Quebec, Sept. 29**—Lafontaine Parc "Francs-Amis" 20-kilometer: 1. Medhi Jahouar (Stade Hullois) 1:03:06; 2. Rich Pyne (Stade Hullois) 1:06:21; 3. J. Laliberte (CA Sherbrooke) 1:06:39; 4. J. Poirier (Val L.or) 1:06:55; 5. P. Pelletier (CA Sherbrooke) 1:07:58... 28. Kim Stairs (Ottawa K.H.) 1:14:25. (130 finished, 8 under 1:10; from Gabirel B. Duguay).

INTERNATIONAL

• **Roseworthy College, South Aus., Sept. 14**—Marathon Championship of Australia: 1. John Farrington 2:17:23; 2. Brenton Norman 2:18:19; 3. D. Chettle 2:19:44. (28 finished; from Jim Hartnett).

• **Waldniel, West Germany, Sept. 22**—First Women's International marathon: 1. Liane Winter (32, WG) 2:50:31; 2. Chantal Langlace (19, France) 2:51:45; 3. Christa Vahlensiek-Kofferschlager (25, WG) 2:54:40; 4. Manuella Pruess (27, WG) 2:55:59; 5. Jacki Hansen (26, US) 2:56:25; 6. Joan Ullyot (34, US) 2:58:09; 7. Judy Ikenberry (32, US) 2:58:47; 8. Nina Kuscsik (35, US) 3:06:00; 9. Gerda Rienke (36, US) 3:07:32; 10. Claire Spauben (24, Holland) 3:08:13... 13. Lucy Bunz (27, US) 3:16:49... 16. Peggy Lyman (26, US) 3:22:30... 20. Ruth Anderson (45, US) 3:25:22... 28. Catherine Smith (41, US) 3:59:36... Marilyn Paul (US) injured, didn't finish.

RACE WALKING

• **St. John's, Newfoundland, June 2**—Canadian Nat. 50-kilometer: 1. Karl Merschenz 4:32:58; 2. Pat Farrelly 4:38:12; 3. Alex Oakley 4:40:23; 4. Max Gould 5:18:42; 5. Joel Dada 5:20:33.

• **Univ. of Manitoba, Canada, Aug. 27**—Canadian 20-kilometer: 1. John Knifton (US) 1:40:33; 2. Marcel Jobin 1:43:38; 3. Karl Merschenz 1:44:01; 4. Frank Johnson 1:46:35; 5. Tom Knatt 1:48:58.

• **Sweden, August**—Women's International 5-kilometer: 1. Sue Brodock (US) 24:16; 2. Margareta Simu 24:54; 3. Marian Fawkes (Eng.) 24:59; 4. Britt Holmquist (Swed.) 25:10; 5. Siv Gustavsson (Swed.) 25:18... 8. Chris Sakelarios (US) 26:01... 9. Linda Brodock 26:03... 13. Joanne Shima 27:02. Teams: 1. Sweden, 85 pts.; 2. US, 74 pts.; 3. West Germany, 46 pts.; 4. Norway 43 pts.; 5. Denmark, 34 pts.; 6. Finland, 22 pts.; 7.

• **Seattle, Wash., Sept. 1**—National AAU 50-kilometer walk: 1. Larry Young (Columbia TC) 4:25:51; 2. John Knifton (NYAC) 4:30:50; 3. Augie Hurt (Columbia TC) 4:42:01; 4. Ron Kulik (NYAC) 4:48:16; 5. Tom Knatt (No. Medford C.) 4:50:21; 6. Bob Bowman (Beverly Hills S.) 4:54:20; 7. Bob Rosencrantz (Snohomish TC) 4:58:37; 8. Dan O'Connor (NYAC) 4:59:53; 9. Roger Duran (WVTC) 5:12:52; 10. Chris Amoroso (Colorado TC) 5:13:27. Teams: 1. NYAC, 14 pts.; 2. Columbia TC, 15 pts.; 3. Snohomish TC, 33 pts. (15 finished; from Dean Ingram).

• **Fairfield, Conn., Sept. 8**—Conn. AAU One-hour walk: 1. Bruce Douglas (N. Medford C.) 6m 949y; 2. Paul Stewart (USMMA) 6m 788y; 3. ... 8. Debbie Naybor 5m 1097y. (14 finished; from Jack Boitano). Teams: 1. Stratford Spartans, 6 pts.

TRACK

Winners of the European Championships (see "Europe's Little Olympics" in this issue):

• **Men**—100m—Valeriy Borzov (Soviet Union) 10.27. 200m—Pietro Mennea (Italy) 20.60. 400m—Karl Honz (West Germany) 45.04. 800m—Luciano Susanj (Yugoslavia) 1:44.1. 1500m—Klaus-Peter Justus (East Germany) 3:40.6. Steeplechase—Bronislaw Malinowski (Poland) 8:15.0. 5000m—Brendan Foster (Great Britain) 13:17.2. 10,000m—Manfred Kuschmann (West Germany) 28:25.8. Marathon—Ian Thompson (Great Britain) 2:13:18.8. 20-kilometer walk—Vladimir Golubnichiy (Soviet Union) 1:29:30. 50-kilometer walk—Christoph Hohne (East Germany) 3:59:05.6. 110m hurdles—Guy Drut (France) 13.40. 400m hurdles—Alan Pascoe (Great Britain) 48.82. 400m relay—France 38.69. 1600m Relay—3:03.3.

• **Women**—100m—Irena Szewinska (Poland) 11.13. 200m—Szewinska 22.51. 400m—Riitta Salin (Finland) 50.14. 800m—Lilyana Tomova (Bulgaria) 1:58.1. 1500m—Gunhild Hoffmeister (East Germany) 4:02.3. 3000m—Nina Holmen (Finland) 8:55.2. 100m hurdles—Annelie Ehrhardt (East Germany) 12.66. 400m relay—East Germany 42.51. 1600m relay—East Germany 3:25.2.

Recent records:

• **400-meter relay (women)**—42.51, East Germany (Doris Maletzki, Renate Stecher, Christina Heinich, Barbel Eckert), Rome, Italy, Sept. 8, breaking world record

• **One-mile walk**—6:09.0, Roger Mills (Great Britain), London, Sept. 13, breaking world record of 6:10.4.

• **40- and 50-mile walks**—5:56:29 and 7:31:06, Ray Middleton (Great Britain), Haringey, England, Sept. 29, breaking world records of 6:07:07 and 7:44:47.

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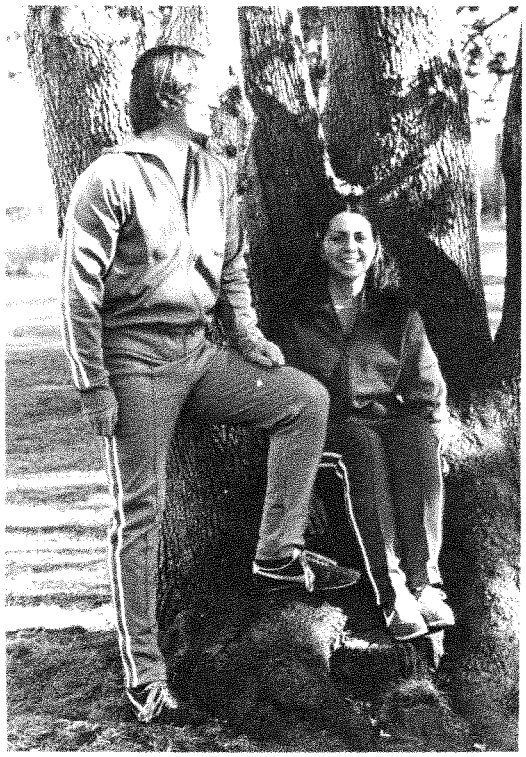

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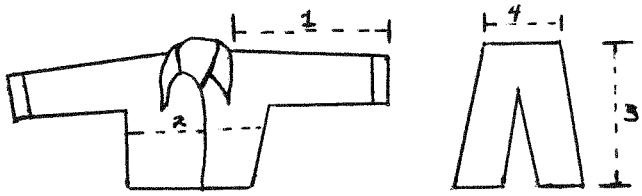

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READERS' COMMENTS

CHARLESTON

About two weeks before the recent Charleston Distance Run ("Everybody's Doing the Charleston," this issue), I wrote the race directors a letter, explaining that we would like to make Charleston our family vacation for the year and I would like to enter the race.

A letter came back, reiterating the fine awards and related events, with an application form. On Wednesday morning of race week, the family was all packed, excited and ready to roll on our five-day vacation. Since it was close to mail delivery time, we decided to await the mailman and then depart.

A letter arrived from Charleston, returning my entry blank and stating that they were all full. Incredible! I doubt if I'll ever apply to Charleston again. I recommend fellow runners to apply early next year, and have a notarized acceptance before packing.

Carl Muckler
Florissant, Mo.

ALTITUDE

Your altitude articles ("Experiments with Altitude," Sept. 74) interested me. I spent my summer somewhere between the Sierra foothills and peaks and ran about 40 miles a week. I smelled and looked at beautiful, bright blue skies, drank great quantities of water after relaxing evergreen-lined workouts, ate more than I usually do, lost eight very unnecessary pounds, slept nine hours a night, and even managed to fall in love.

In late summer, I ran a nine-mile workout in Eastern Washington where I had gone to college. This course called the "Loop" used to be a hellish workout in my youth. After mountain training, it was quick and enjoyable. Obviously, the Fountain of Youth is along the backroads of the Sierra. Ponce de Leon blew it.

Bruce Jones
Point Richmond, Calif.

HEART

George Sheehan, M.D., generally gives sound advice, and in his column ("Medical Advice") of September he points out that he himself—though a fine performer—suffers from abnormal tachycardia (heart rhythm) occasionally and that he doesn't have much trouble with it. Although very few studies have been done on the subject, Dr. Sheehan implies that it is accepted information that these arrythmias are common and that they are therefore of no consequence.

I would caution against this attitude and feel that any runner who suffers from the sense of irregular or abruptly rapid heart action, especially during exercise, should have it checked out by a cardiologist. It is cheap and important insurance. And there are enough runner cardiologists around who are sympathetic with runners' goals so the person with the arrythmia won't be grounded unless it is really warranted.

John Hutchinson, M.D.
San Francisco, Calif.

OFFICIALS

The area which seems to get the least exposure (in *RW*) is officiating. This probably is only natural since the majority of your subscribers are competing athletes. However, I would like to see you attempt to better inform the athlete about officiating and officials. It seems to me, more and more the athlete and official are throwing rocks at each other—mainly because they do not understand each other's problems.

Not long ago, when I was officiating, a young runner who disagreed with an AAU rule said to me, "We don't need officials. All we need is runners." Of course we need all the runners we can get, but we won't have a program without officials and the necessary rules to govern the sport.

I have been a competing athlete for 35 years and an AAU official for 15 years. And I have found that almost all officials do their best to understand and try to serve the competing athlete. Most of them are dedicated individuals who are doing their best to have a good program for the runners. On the other hand, I find the athletes not as sympathetic to the officials and often treating them as necessary evils.

Stanley Stafford
Roseburg, Ore.

BICYCLING

It is somewhat demeaning to the sport of bicycle racing to refer to the Tour of the Scioto River Valley (TOSRV) as the "Bikers' Boston" ("News and Views," Sept. 74). At least the Boston marathon is a race, which TOSRV definitely is not.

In an actual bicycle race, the riders would cover 105 miles in four hours, as compared to the nine hours which the author says it took him to cover that distance. They (racers) would do very little "coasting," and they would be in an almost constant state of oxygen debt. Nor would there be any place in a typical race for the "incidental cyclist" or the "partially fit."

James Harrison
Bolinas, Calif.

WOMEN

I was appalled to read in the September issue ("Looking at People") that women were initially discriminated against in the National AAU Masters meet. I ran the better part of the marathon alongside of Catherine Smith, and I found her to be personable, witty and a very dedicated athlete—a real inspiration to her sex and age-group.

Please, let's all try to become more civilized about women's place in all forms of athletics, especially the universal sport of running.

Fred Schmitz
Portland, Ore. •

CREDITS: Page 10, John Marconi. Pages 32-33—Shoe repair, by Bil Canfield. 40—Norman Bright, by Loyd Case Jr.; Alphonse Juilland, by OMPhoto; Valeriy Borzov, by Mark Shearman.

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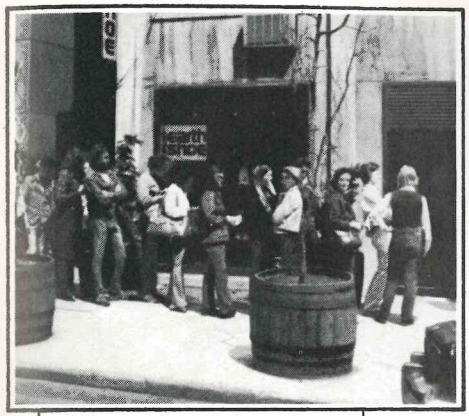

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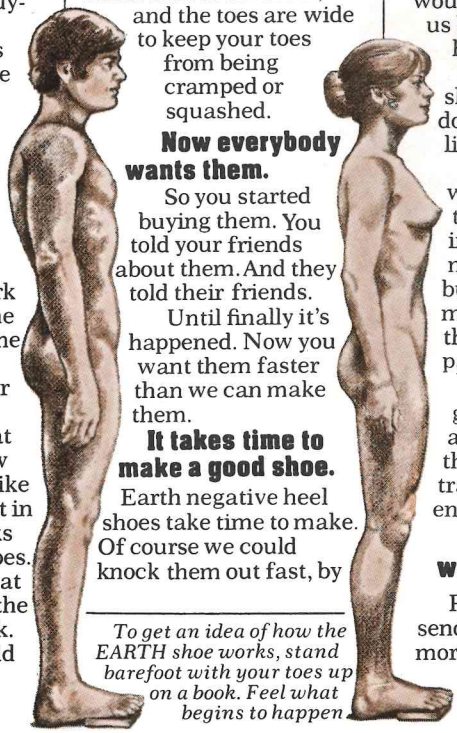

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Anne Kalsø.
Inventor of the EARTH® negative heel shoe.

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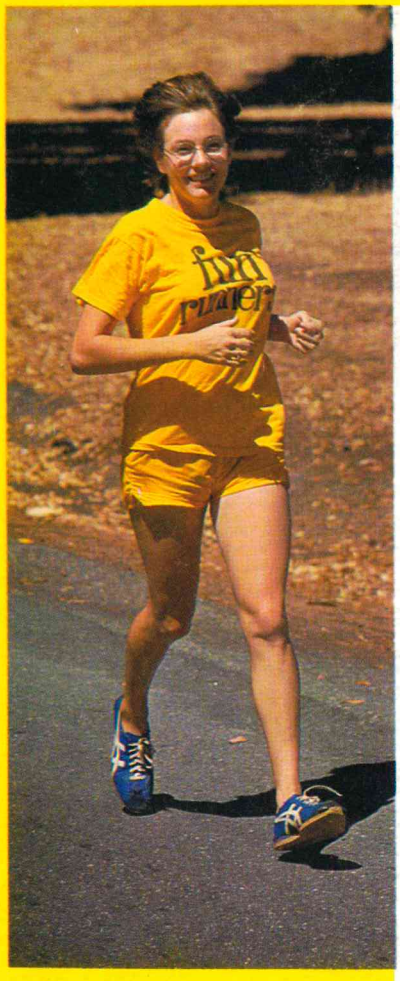

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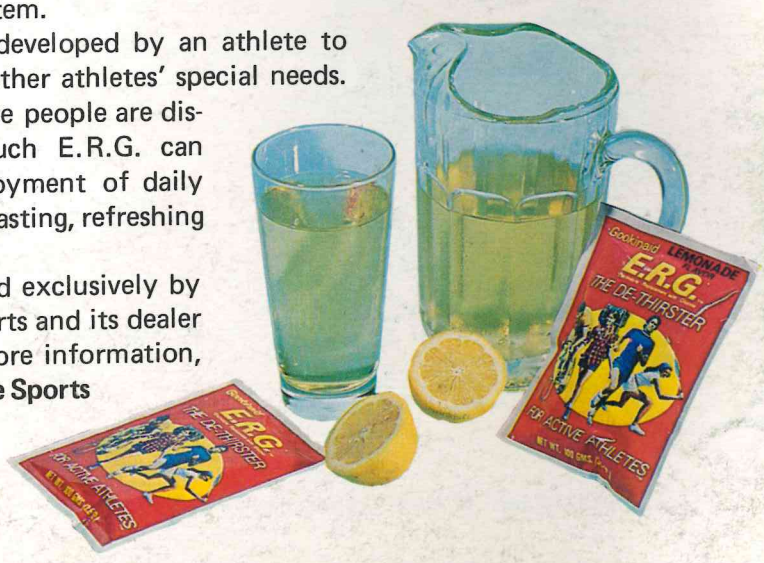
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