

Ohio Race Walker  
3184 Summit Street  
Columbus, Ohio 43202



# OHIO RACEWALKER

VOLUME XV, NUMBER 7

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## MEXICANS REMAIN ON TOP

Frankfurt, W.G., Sept. 29-30--Despite the absence of Domingo Colin because of injury and a subpar performance by Raul Gonzales, the Mexican race walking corps successively withstood the Soviet challenge to defend their Lugano Cup title. And the revolution that they have brought about in race walking continued unabated with results that we find hard to comprehend as we type them. As a result, our walkers found themselves left completely in the ruck despite three personal bests and our best overall performance (timewise) ever in this competition.

In Saturday's 20 Km, Daniel Bautista proved once again that he is head and shoulders over the rest of the world. And the Soviets again demonstrated their tremendous depth. Bautista went through the first 5 km in 19:21 and then forgot he should slow down at that sort of pace. At 10 Km he had 39:05. He proceeded to 15 km in 58:52 and went on to finish in a mind boggling 1:18:49. The Soviets, however, were not all that far behind, although Bautista had things very much his own way. Boris Yakovlyev grabbed second in 1:19:46 and was followed by three countrymen in the next 42 seconds. The Mexicans stayed close in the team battle by capturing sixth and eighth to finish the race three points behind the USSR total of 120. With both country's very strong in the 50, it was obvious no one else was in the team picture.

The Mexico-USSR domination continued on Sunday. World record holder Gonzales went out on his own, with no one daring to match his pace. Covering 10 Km in 42:47, 20 in 1:25:03, and 30 in 2:07:29, he had a 5-minute lead on the field. Then he proved he is only human and succumbed to his own brutal pace. However, as he faded, two teammates came to the fore to sweep to a 1-2 finish with Martin Bermudez winning in 3:43:36. When Gonzales revived himself to hang on to fourth, the Mexicans had a five-point victory in the overall scoring. Not without a valiant fight from the USSR, though, as the Soviets captured places 3, 5, and 6. All of the first six finishers were under 3:50. Certainly a great victory for Mexico as one would never have expected them to withstand the Soviet depth without Colin.

For the U.S., Jim Hering had his best race ever with a 1:28:51, but this left him 31st. Chris Hansen was on about a 1:27 pace at 15 km, but struggled from there. Still he managed to be very near his best with 1:29:56 in 35th. Neal Pyke went through the first 5 km in 20:05 and was still about 63:00 at 15 km, well on his way to an American best, when he too folded from the effort, lost style, and was DQ'd while in about 20th place. Steve Pacinovsky, suffering from a heel injury, struggled through with a 1:37:22 in 45th to get the team points.

At 50, Vincent O'Sullivan was well under his personal best with a 4:12:15, moving him to third on the U.S. all-time list. He was 34th, one  
(Cont. on p. 7)

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## RESULTS:

Conn. Sr. 2 Hour, Ledyard, Aug. 26--1. Jack Boitano 12 mi 1385 yds  
2. Bruce Douglas 12 mi 643 yds (Boitano 6 mi 1208 and Douglas 7 mi 169 at 1 Hour) Conn. Sr. Women's 1 Hour, Same place--1. Cheryl Wood 5 mi 41 yds 2. Judy Greenwood 5 mi 40 yds 5 Miles, Fresh Pond, Mass., Aug. 23--1. George Lattarulo 44:37 2. Steve McAvoy 53:54 3. Ralph Cardelli 59:12 4. Fred Brown Sr. 61:30 5.5 Miles, Lowell, Mass., Aug. 29--1. George Lattarulo 52:17 2. Tony Medeiros 53:41 3. Fred Brown 69:48 5.5 Mile, Lowell, Sept. 12--1. George Lattarulo 49:57 2. Dennis Slattery 51:14 3. Tony Medeiros 51:33 4. Fred Brown 68:55 NEAAU 50 Km, Brattleboro, Vt., Sept. 16--1. Bob Falciola 4:51:25 2. George Lattarulo 5:50:50 2 Mile, Lakewood, N.J., Aug. 7--1. Sam DeLosSantos 15:49 2. Ben Ottmer 16:56 3. Fred Spector 19:33 2 Mile, Lakewood, Aug. 14--1. DeLosSantos 15:18 2. Ottmer 17:37 3. Spector 18:32 2 Mile, Lakewood, Aug. 21--1. Ottmer 17:32 2. Spector 20:06 2 Mile, Lakewood, Aug. 28--1. Steven Backles 18:49 (all races 20 yards short) Eastern Regional Masters, Philadelphia, June 23--5 Km: Age 30-34--1. Ron Salvio 27:39 2. J. Barber 33:19 40-44--1. W. Preston 26:04 2. Joe Stefanowicz 26:57 45-49--1. Bob Fine 25:49 2. Paul Walkovic 35:48 55-59--1. Tim Dyas 29:13 15 Km, Racine, Wis., Sept. 3--1. Jim Heiring 1:09:31 2. Jay Byers 1:15:39 3. Steve Ball 1:23:29 4. Paul Malek 1:52:50 (John VanDenBrandt finished 6th in accompanying run in 51:41, Al Halbur out at 2 miles) 24 Hour Relay, Pekin, Ia., Aug. 29: Women--Pekin Panthers 127 miles 1100 yds (Lynn Wonderlich, age 17; Kim Rhodes, 15; Julie Greiner, 16; Angela Eidahl, 12; Andrea Goettsche, 13; Anita Hall, 15; Kim Andeway 15; (all 13 miles); Julie Bollinger, 14 (12 mi. 1100 yds); Julie Morgan, 16; and Julie Anderson, 16 (both 12 miles)--new World's Best for women Men--Iowa Race Walkers 148 mi 220 yds (Stan Smith, Bret Mauer, Mike Hook, Dave Eidahl, Rick Carson, Shawn Dahlstrom, Shane Sahlstrom, Tom Wolcott, Roger Swanson, and Doug Young--the latter two went only 6 and 4 miles respectively and the remainder carried on without them. Iowa 15 Km, Camp Mitigwa, July 28--1. Dave Eidahl and Don DeNoon (now women's track coach at Drake) 1:08:55 2. Stan Smith 1:22:20 4. Martin Smith 1:12:50 5. Mike Hook 1:25:43 6. Rick Carron 1:29:32 Women's 3 Mile, same place--1. Angela Eidahl 32:10 Indoor 1 Mile (in shopping plaza), Des Moines, July 27--1. Dave Eidahl 7:15 2. Mike Sullivan 7:42 3. Rick Carron 8:10 4. Jeff Eidahl 9:04 5. Angela Eidahl 9:05 20 Km, Columbia, Mo., Aug. 4--1. Randy Mimm 1:49:20 2. Jerry Young 1:50:02 3. William Taft 2:40:02 MVAU 30 Km, Columbia, Aug. 12--1. Randy Mimm 2:31:12 (49:48, 1:41:03) 2. Jerry Young 2:37:58 (49:48, 1:41:09) 3. Leonard Bisen 3:07:24 4. Randy Bakewell 3:09:41 Gulf AAU 15 Km, Houston, Sep. 16--1. Steve Baca 1:11:52 2. Grimm Reaper 1:15:20 3. Mike Kleinhenz 1:20:29 4. Dave Gwyn 1:20:41 5. Matt Stein 1:21:42 6. Gene Askew (age 59) 1:28:18 7. Phil Bradley 1:28:21 8. Jim Rowley 1:29:16 9. Bill Scheel 1:35:25 10. Lida Askew (age 53) 1:38:14 Squaw Peak Mountain Race, Utah, Sept. 15, 4.6 miles (up paved mountain course to a summit at 7000 ft.)--only racewalker Tim Jacobs 61:10 finished ahead of 8 runners. (cont. p. 4)

## EVONIUK CLEAR WINNER IN 50

San Francisco, Aug. 26--A<sub>9</sub> reported sketchily last month, Colorado's Marco Evoniuk continued his mastery of the U.S. scene over 50 Km with a win in the National Championship race today. Although he was about 5 minutes slower than in June, Marco's 4:15:07 has still been bettered by only two U.S. walkers--Larry Young and Bob Kitchen. Dan O'Connor was much better in this one than in that June Pan-Am trials and gained 3 minutes on Evoniuk over the last 11 miles to finish in a swift 4:19:38. In the course of that final surge he passed both Carl Schueler and Vince O'Sullivan who captured the other two spots on the U.S. Lugano Cup team. Ray Somers gained considerably on Schueler during the final 6 miles but ran out of room and was still 1 1/2 minutes away from the final team slot at the finish. Augie Hirt and Wayne Glusker were not too far back, but never challenged for the leading spots.

The only challenger to Evoniuk in the race was Jim Heiring, who emerges as a new threat at the distance if he decides to train for it. He stayed very close to Marco for the first 20 miles, although Marco always led, and trailed Marco's 1:36:47 by only 15 seconds at that point. When Jim called it a day at 25 miles, he was still just 46 seconds behind and about 7 minutes ahead of everyone else.

The race was easily the classiest in U.S. history with 11 under 4:40 and 18 under 5 hours. This despite people such as Heiring, Randy Mimm, Dennis Reilly, Tom Dooley, and Bob Rosencrantz not finishing.

In the Master's division, Bill Ranney won with a 4:48:53. At 30 miles, Ron Laird led Bill by 21 seconds but apparently collapsed, or nearly so, as he needed nearly 14 minutes to cover that last mile and 120 yards. Sal Corrallo just missed overhauling Laird for second. None of this meant to detract from the performance of Bill Ranney, who passed 7 people after 20 miles. He was destined to catch Laird collapse or no.

Results: 1. Marco Evoniuk, Colo. TC 4:15:07 (5 mile splits of 38:44, 1:17:31, 1:56:33, 2:36:47, 3:19:07, 4:05:26) 2. Dan O'Connor, NYAC 4:19:38 (41:09, 1:22:27, 2:02:47, 2:44:19, 2:26:43, 4:10:59) 3. Carl Schueler, Pot. Valley TC 4:24:16 (40:44, 1:21:22, 2:02:11, 2:44:03, 2:27:44, 4:14:10) 4. Vince O'Sullivan, East Side TC 4:25:39 (40:19, 1:21:17, 2:02:15, 2:44:05, 2:27:43, 4:14:49) 5. Ray Somers, NYAC 4:27:13 (41:09, 1:22:56, 2:05:10, 2:47:48, 3:31:36, 4:17:12) 6. Augie Hirt, UCTC 4:30:42 (41:13, 1:23:04, 2:05:23, 2:49:42, 3:34:58, 4:20:28) 7. Wayne Glusker, West Valley TC 4:31:16 (42:24, 1:23:48, 2:05:17, 2:48:16, 3:33:34, 4:21:44) 8. Karl Johansen, un., Seattle 4:33:25 (40:44, 1:21:36, 2:03:43, 2:47:00, 3:34:52, 4:23:42) 9. Bob Falciola, Shore AC 4:35:39 (42:36, 1:24:30, 2:07:38, 2:52:26, 3:40:07, 4:26:11) 10. Alan Price, PVTC 4:37:55 (42:10, 1:24:45, 2:04:??, 2:49:40, 3:29:05, 4:27:21) 11. Roger Brandwein, Calif. Walkers 4:39:57 (43:02, 1:27:26, 2:12:00, 2:57:48 3:43:41, 4:30:16) 12. Bill Ranney, WVTC 4:48:53 (42:56, 1:27:21, 2:13:09, 3:04:23, 3:51:16, 4:39:11) 13. Brad Jacobs, Woodside Striders 4:49:18 (45:05, 1:28:38, 2:14:13, 3:00:55, 3:49:52, 4:39:09) 14. Ron Laird, NYAC 4:52:47 (40:44, 1:25:03, 2:10:02, 2:55:50, 3:45:36, 4:38:50) 15. Sal Corrallo, PVTC 4:53:11 (42:56, 1:27:21, 2:13:08, 3:00:49, 3:51:01, 4:42:20) 16. Steve Vaitones 4:54:26 17. Jerry Brown 4:54:48 18. Greg McGuire 4:54:48 19. Ray Florian 4:55:38 20. Roger Loder 5:07:03 21. Sam DeLosSantos 5:12:07 22. Gerald Bocci 5:16:54 23. Manny Adriano 5:16:54 24. Jeanne Bocci 5:17:22 25. Steve Schneider 5:42:47 26. Chuck Hunter 5:45:36 27. Harry Siitonen 7:05:39 DQ--Dennis Reilly, 23 miles in 3:13:23; Steve Pecinovsky, 18 miles in 2:38:31; and John Allen, 20 miles in 3:07:55. DNF--Jim Heiring, 25 miles in 3:19:49; Randy Mimm, 22 miles in 3:09:35; Tom Dooley, 21 miles in 3:01:49; Bob Rosencrantz, 20 miles in 2:59:16; Glenn Sweazy, Can. 17 miles in 2:24:28; Gerry

Willwerth, 16 miles in 2:35:24; Ed Bouldin, 15 miles in 2:12:44; Jerry Young, 13 miles in 1:50:33; Dillon 20 Km in 1:58:33.  
 Teams: 1. NYAC 13:49:38 2. Potomac Valley TC 13:55:22 3. Colorado TC 14:04:43 4. Shore AC 14:43:34 5. Motor City Striders 15:40:04  
 Masters Results: 1. Ranney 2. Laird 3. Corrallo 4. Bocci 5. Hunter 6. Siitonen

## RESULTS (cont.):

Half Marathon, L.A. area—1. John Kelly 1:53:37 2. Chris Real 2:04:15  
 3. Chris Smith 2:04:50 4. Carl Warrell 2:21:05 Women—1. Sheil Smith 2:42:08 2. Samantha Wynn 2:50:14 3. Jan Geller 2:54:50 15 Km, San Diego, Sept. 9—1. Dale Sutton 1:27:00 AAU Age Group Championships, Omaha, July 22—9 and under 1500: 1. Chris Moeller, Neb. 7:43.3 2. Pat Wilkins, Neb. 7:45.2 3. Kelly Fox, NC 8:12.3 Age 10 and 11 1500: 1. Mike Augustus, Cal. 7:17.2 2. John Spohler, NM 7:17.2 3. Ron Quarry, Ohio 7:26.6 Age 12 and 13 3 Km: 1. Paul Wade, Cal. 14:59.2 2. John Craighead, NC 14:59.2 3. David Bernard, Ohio 15:48.1 1 Mile, Palo Alto Cal., July 28—1. Bonnie Dillon 8:18 2. Art Smith 8:44 1 Mile, San Francisco, Aug. 24—1. Art Smith 8:34 2. Paul Wade, age 13, 8:34 1 Mile, San Francisco, Aug. 11—1. Bonnie Dillon 7:58 2. Lori Maynard 8:48 3. Harry Siitonen 8:57 NAAU Masters Championships, Gresham, Ore., July 6-8: 5 Km: age 30-34—1. Dave Himmelberger 22:27 2. Marty Stitzel 26:03 40-44—1. Ron Laird 22:27 2. Raymond Fitzhugh 31:42 45-49—1. Bob Fine 26:05 2. Dick Vanderhoff 26:28 3. Paul Kaald 27:32 50-54—1. Bob Mimm 25:26 2. John Friesen 29:54 3. Bob McGuire 30:06 60-64—1. Don Johnson 28:09 2. Don Jacobs 35:54 65-69—1. Gordon Wallace 29:30 70-74—1. Chesley Unruh 31:53 20 Km: 30-34—1. Dave Himmelberger 1:39:59 40-44—1. Ron Laird 1:51:50 2. Ray Fitzhugh 2:29:15 45-49—1. Bob Fine 1:55:49 2. Dick Vanderhoff 1:57:57 3. Paul Kaald 1:59:23 50-54—1. Bob Mimm 1:52:53 2. John Friesen 2:23:34 60-64—1. Don Johnson 2:04:20 65-69—1. Gordon Wallace 2:12:45 European Junior 10 Km Championship, Bydgoszcz, Poland, Aug. 16—1. Jozef Pribilinec, Czech. 41:04.8 2. Erling Andersen, Norway 41:12.8 3. Jorg Fasemann, E.G. 42:31 4. M. Friebe, EG 42:33.8 5. A. DiJulio, Italy 43:05.5 6. Gordon Vale, UK 43:32 7. Z. Sala pkin, Pl. 45:11 8. J. Klos, Pol. 45:12 E.G. 20 Km, Karl-Marx Stadt—1. Fred Sparmann 1:25:25 2. Kerber 1:25:42 Lugano Cup Semi-Final, Hove, Eng., Sept. 2: 50 Km—1. Gerhard Weidner, WG 4:01:48 2. Hans Bjnder, WG 4:05:25 3. Arian James UK 4:09:33 4. Stig Elofsson, Swed. 4:11:46 5. Heinrich Schubert, WG 4:12:37 6. K. Degener, WG 4:18:29 7. P. Rasmussen, Swed. 4:23:31 8. Max Sjolholm, Swed. 4:23:31 9. Chris Maddocks, UK 4:23:46 10. Christian Halloy, Belg. 4:24:45 11. George Nibre, UK 4:25:57 12. Peter Hodgkinson UK 4:29:37 20 Km: 1. Bo Gustavsson, Swed. 1:25:41 2. Roger Mills, UK 1:27:50 3. Amos Seddon, UK 1:29:04 4. Alfons Schwarz, WG 1:29:29 5. Chris Harvey, UK 1:29:37 6. Alf Brandt, Swed. 1:29:48 7. Rngt Simonsan, Swed. 1:31:09 8. J. Meyer, WG 1:31:24 9. Graham Morris UK 1:31:59 10. Hans Michalski, WG 1:32:07. Teams: 1. West Germany—68 2. Sweden—66 3. United Kingdom—65 4. Belgium—29 5. Netherlands—14 (First three to Lugano final)  
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 FROM HEEL TO TOE

The 20 Km race in Grosse Pointe, Michigan that you see on the schedule elsewhere in this issue is the First Casimiro Alongi International Memorial Race Walk. Casimiro Alongi was a member of the Italian National Team, a Mediterranean race walking champion, and holder of several records in Italy. He emigrated here in 1970 to join his brother Frank in Detroit and died of cancer in 1975 at the age of 41. Frank has initiated

this race as a memorial to his brother. Frank, an International race walking judge, a National coach in Italy, and a former member of the Italian Olympic committee has fine awards donated by the Italian Olympic Committee and assurance of participation of several members of the strong Italian national team—Famich, Visini, DaMilano, perhaps. The Mexicans may also send a team, so it promises to be an interesting race. There will also be a Women's 5 Km, a Junior 5, and a 3 Km for beginners, as well as a Master's Division in the 20... Following the World Masters Meet in Hanover, Bill Ranney got in some additional races and did a 21:58 for 5 Km in Milan, Italy and a 46:12 for 10 in Switzerland, both age 44 records. The day after the 10, he did an uphill 7 Km in Switzerland in 34 something... My apologies to several people who have written asking for information of one sort or another over the last couple of months. I haven't thrown those letters away, but I haven't found time to answer them either. I seem to be a bit overcommitted these days, but I still hope to attack that correspondence soon... The race walking committee at the AAU Convention in Las Vegas, hopefully will be held beginning at 8 a.m. on Saturday, Nov. 24—the day before the National 25 Km. Dean Ingram says he is again going to try to delete the "B" Championships so you had better show up if you are a strong defender of these races... The Niagara Association is selling race walking patches depicting a rather fierce looking, nondescript race-walking animal and saying something like "I'm a racewalker. So What?". I can't seem to locate the one Dan Stanek sent me, in my usual organized fashion. But they are clever and "bring a little macho to our sport" as Dan says. "For a mere \$1.50, you become tough." Contact Dan at 1081 Sheree Drive, Grand Island, NY 14072 if you want some... U.S. walkers aren't alone in having trouble obtaining support from governing organizations (and we are sure doing better the last few years). In commenting on the great performance of British women in Sweden (see last month's ORW), the Race Walking Record notes: "The invitation was for six girls with air fare and expenses being met by the Swedish authorities, but the WCCRWA in their wisdom decreed that the British standard was not high enough to send more than four... We already have four established star names, does that mean that the others have not to be given the experience or deserved opportunity..." Race sponsors might be interested in Nike race kits. These consist of start and finish banners, mile markers, race numbers, race official T shirts. Requests for these kits must be made at least 8 weeks in advance of the race and the kit will be supplied subject to Nike approval. Write to Peter Thompson, Race, Director, Special Events, 8285 S.W. Nimbus, Ste. 115, Beaverton, OR 97005... Larry Larson notes that there is also another inexpensive set of race materials and numbers available. For information on this one, write Electric City Printing Company, P.O. Box 630, Anderson, SC 29622 and ask for the "Race Management Aids and Course Marking Kit Info" packet. Larry also recommends ordering a double set of numbers (front and back) for the benefit of judges, timers, and recorders... Anyone with big feet and the need for a free pair of shoes can write Tim Jacobs. He has a new pair of Nike LDVs, size 14, with modified (cut down) soles. (I could just about use one of them for both feet myself, with my size 7½ feet). Tim's address if you are interested is 1674 South 1200 East, Salt Lake City, UT 84105... For those planning to hit the National 35 Km in Houston, be sure to inquire about free housing. They are hoping to have spots for as many as 75 people...

## MORE ON PUSH VS. PULL

In the July issue we carried a short piece by Frank Alongi regarding race walking style, in which he emphasized the importance of pushing off the rear foot. This seemed to be in opposition to what most of us have always understood, i.e., walking is a pulling action as opposed to the pushing action of running. A letter from Jerry Brown in the August issue took exception to Frank's remarks and I wrote a fence-straddling commentary

in which I tried to agree with both. Frank has written again to clarify his position.

As noted earlier, Frank Alongi has been an Italian national coach. Furthermore, he has done some very detailed study of the sport from the biomechanics (his thesis in 1950 was on race walking technique). He is presently employed at Ford in human research, so whatever he says comes as a result of considerable study and not inconsiderable qualifications. In his studies, he has looked at films of walkers from many eras, beginning with the great Frugiero in the 1920's. As a result of his early studies, he was able to introduce new methods and basic training skills into the Italian program in the 50s. A study of these methods by the Soviets and Germans had a great deal to do with their great success. The Mexicans have now taken modern racewalking methods to yet another level.

What all of this says is that there has been a revolution in race walking technique over the past 20 years and Frank feels that we are still back in the 50s. To illustrate the change, Frank presents the following test data based on analysis of the top 10 walkers in the world for two years:

	Up to 1950		1978	
Stride length:	10 Km	1.16 of crutch ht.	20 Km	1.39 of crutch ht.
	50 Km	0.95 of crutch ht.	50 Km	1.26 of crutch ht.
Hip Swing	10 Km	36 degrees	20 Km	52 degrees
	Angle Fore & Aft:	50 Km 20 degrees	50 Km	33 degrees
Leading foot	10 Km	30 degrees	20 Km	45 degrees
	rolling angle of	50 Km 24 degrees	50 Km	37 degrees

approach:

The measurements were taken during the middle portion of races at a point before the working phase of the trailing foot was completed.

Based on such data and on other studies he has made, Frank concludes that in modern race walking there is no pulling but high flexibility, good coordination, good strides due to good rolling action, and great propulsion (pushing) and use of the entire working phase of the trailing foot. Good posture and extremely fast leg action are also keys to the rapid improvements we are seeing. Any pulling action, according to Frank, shortens the working phase of the propulsion device (trailing foot) with loss of energy and efficiency, which is essentially what I tried to say in seeking to defend Frank's position last month.

In another study, Frank attempted to determine energy expenditures for three different arm positions in a race walker--45°, 90°, and 120° (angle between the forearm and upper arm). In these tests, the arms were held close to the body during walking at an 8-minute per mile pace. Effort was measured by a strain gauge bridge installed at the forearm. Also, a piezo-electric accelerometer was attached on the back of the right hand. Measurements were taken with a spectrum analyzer, in real time, with an average of 32 samples per angle and arm position. His conclusions from this study were that the 90° position is the most economical, 120° is acceptable, but 45° is not.

Frank feels we have considerable talent in this country but lack the proper coaching, scientific training methods, and the necessary mobility and flexibility in style. The latter, of course, is an outgrowth of the first two shortcomings. This is not meant to indict those that are trying to coach now but merely saying we need better guidance. Certainly, having Jerzy Hausleber at the Olympic training camp last summer was a step in the right direction, but much more is needed.

Frank's thesis appears to be supported by some East German training literature that has come to us via Larry Larson. The book Track & Field edited by Gerhard Schmolincky and published in Berlin in 1978 contains a section on walking and running. (This is a text book for coaches and sports teachers.) They never actually discuss the push vs. pull question, but the fact that they equate walking and running should tell us something. Furthermore, in the preface to the section they say: "Walking and running are cyclic movements in which two consecutive strides or one double stride make up a complete cycle of movement. In a double stride, all the separate phases of the running movement are performed; the new cycle follows without a break. In this cycle, both legs have alternately supporting and driving (emphasis added) functions. The main difference (emphasis added) between walking and running is that in walking, one foot always touches the ground; in running this ground contact is temporarily broken (non-supporting phase). The basically similar patterns of movement permit us to confine ourselves in what follows to running." All of which seems to indicate that they are not differentiating between a pushing and a pulling action.

#### LUGANO CUP (Cont.)

place ahead of Marco Emoniuk, who he passed near the finish. Marco did the first 20 in 1:32:35 and still hung on to finish near his best ever with a 4:12:37. Dan O'Connor also had a personal best of 4:17:24 and Carl Schueler was up to par with 4:27:24. They finished 38th and 44th. Such is the state of walking in the world today.

In the accompanying women's 5 Km, Marian Fawkes, of Great Britain, streaked to a world's best of 22:51, followed closely by her compatriot, Carol Tyson. As a result, the British were easy team winners over Sweden. Led by Sue Liers 24:02 in 10th, the U.S. women finished fifth in the team battle.

Next month, we will have more detail and full results on these three great races. For now, you will have to settle for what we have gleaned from two trans-Atlantic phone conversations with Larry Larson. (Your subscription rates will go up next month to cover the cost.)

20 KM: 1. Daniel Bautista, Mex. 1:18:49 2. Boris Yakovlyev, USSR 1:19:46 3. Nikolai Vinnetschko, USSR 1:20:05 4. Anatoly Solomin, USSR 1:20:13 5. Pyotr Potschschuk, USSR 1:20:28 6. Ernesto Canto 1:21:12 7. Hartwig Gauder, E.G. 1:21:50 8. Felix Gomez, Mex. 1:22:09 9. Roland Weisser, E.G. 1:22:30 10. Jozef Pribilinec, Czech. 1:23:44

50 Km: 1. Martin Bermudez, Mex. 3:43:36 2. Enrique Vera, Mex. 3:43:59 3. Viktor Dobrovski, USSR 3:45:51 4. Raul Gonzales, Mex. 3:46:26 5. Vyascheslav Fuzsov, USSR 3:48:55 6. Pyote Melnik, USSR 3:49:31

Team Scores: 1. Mexico--240 2. USSR--235 3. East Germany--201 4. Italy--152 5. Czechoslovakia--142 6. Poland--127 7. Hungary--112 8. West Germany--108 9. Australia--103 10. Sweden--101 11. Spain--94 12. United Kingdom--89 13. United States--67 14. New Zealand--25

Women's 5 Km: 1. Marian Fawkes, UK 22:51 2. Carol Tyson, UK--22:59 . . 10. Susan Liers, US 24:02 . . 19. Chris Sakelarios, US 24:50 . . 22. Sue Brodock, US 25:00 23. Paula Kash, US 25:08

Teams: 1. UK--85 2. Sweden--74 3. Norway--69 4. Australia--64 5. U.S.--48 6. West Germany--38 7. France--36 8. Italy--26 8. Switzerland--14 9. Denmark--12.

## LOOKING BACK

10 Years Ago (From the Sept. 1969 ORW)—The national 50 Km, held at altitude at Lake Tahoe, went to Bryon Overton in 4:56:07. Second place went to distance runner, Bob Kuchar, in only his fifth walking race. He had a 5:06:29 and then donned his knapstack and strolled off into the woods, never to be heard from again. Race-promoter Bill Ranney captured third in 5:12:28...In the National 25 Km at Kings Point, Ron Laird strolled home in 2:02:32, followed by John Knifton (2:06:05), Marcel Jobin (2:07:17), Gary Westerfield, Steve Hayden, and Ron Daniel. . . The 20 Km at the European Championships went to Great Britain's Paul Nihill in 1:30:41. A surprise second was Caraiocacoglu, of Romania, who beat Soviet ace Nikolai Smaga with a 1:31:06. East Germans Gerhard Sperling and Hans-Georg Reimann were next, followed by the great Abdou Panich of Italy. The 50 went to East German, Christoph Hohne in 4:13:32 with his teammate, Peter Selzer, next. . . In a 24-hour affair in England, Colin Young covered 129 miles 1155 yards. . . Nihill won a 20 Km during a match with France and Czechoslovakia in 1:28:18, 2 minutes up on Panich..

5 Years Ago (From the September 1974 ORW)—It was European championship time again and 38-year-old Vladimir Golubnichiy won the 20 Km in 1:29:30, upsetting West Germany's Bernd Kannenberg by 8 seconds. The East Germans suffered two DQs and a DNF. Hohne was on top at 50 in 3:59:05.6, 3½ minutes ahead of Soviet Otto Bartsch. Not far back were Selzer and Italy's Vittorio Visini. . . Raul Gonzales came to the fore in the race walking world with a 1:27:52.4 effort in a dual meet with Canada. Daniel Bautista was left better than 4 minutes back, but has improved somewhat in the interim. . . In London, Roger Mills bettered the world's best for 1 Mile (6:10.4 by Dave Romansky) with a 6:09. Gerard Lelievre was just 2 seconds back. . . the Soviet 50 Km went to Sergei Bondarenko in 4:00:00.4 with Otto Bartsch just behind in 4:00:54. . . And in Czechoslovakia, East Germany's recorded a then amazing 1:23:30 for 20 Km. . . Sue Brodock won the Women's International 5 Km in Stockholm in 24:16 and the U.S. finished second to Sweden in the team battle. Marian Fawkes was third that time in 24:59. . . And in looking back 10 Years (now 15 years), we noted that Chris McCarthy had won the 1964 Olympic 50 Km trial in 4:45:51 with Bruce MacDonald next in 4:49:22 and Mickey Brodie capturing the third spot on the team

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## TRAINING

The section on race walking in the East German book mentioned earlier is of considerable interest and is reproduced here. The underlines were in the copy I received from Larry Larson, probably made by UW-Parkside coach, Bob Lawson, who Larry borrowed the book from.

## 3.2.1. Technique

The technique of walking must be perfectly mastered if good results are to be achieved. Importance must therefore be attached to the training of technical skills, as shortcomings in this respect can impair further improvement at a later stage in an otherwise fit walker.

If pace work is started too soon, mistakes will creep in, which are difficult to discard and may even become irreparable.

## 3.2.1.1. Leg Movements

A long and economic stride is achieved by an accentuated pushing off with the trailing leg. Attention must be paid to the correct push-off right from the beginning. The forward thrust necessary for a long stride is achieved by a complete ball-to-toe roll of the foot. Just before the foot is lifted off the ground the front leg should touch the ground with the heel. The so-called double-support phase is an outstanding feature of correct walking. (cont. p. 12)

## THE SCHEDULE

- Sat. Oct. 13—10 Km, Columbia, Mo., 9 a.m. (K)  
National TFA/USA 50 Km, Willmar, Minn. (H)
- Sun. Oct. 14—5 Km, Cleveland (R)  
Iowa 40 Km, Women's 15 Km, Winterset, Ia., 7 a.m. (J)  
2 Hour, Smithtown, NY, 10 a.m. (Y)  
1 Hour, West Los Angeles, Ca., 3 p.m. (P)  
2 Hour, Seattle (X)  
1 Hour and 2 Hour, Bethesda, Md. (E)
- Sun. Oct. 21—20,30,40, 50 Km, San Diego (I)  
NAAU SENIOR, B, AND MASTERS 30 KM, DETROIT (B)  
5 Km, Cedar Rapids, Ia., 10 a.m. (J)  
20 Km, Houston (M)  
5 Mile, Seattle (X)  
5 Mile Hdcp., Philadelphia, 1 p.m. (Q)
- Sat. Oct. 27—RMAAU 1 Hour, Longmont, Col., 9:30 a.m. (P)
- Sun. Oct. 28—10 Km, Cleveland (R)  
Walking Pentathlon (5,3,1,½, and ¼ Mile), Phil., 1p.m. (Q)
- Sat. Nov. 3—4 Mile, Pekin, Ia., 1 p.m. (J)  
NAAU SENIOR 40 KM, LONG BRANCH, NJ (A)  
40 Km, Columbia, Mo., 8 a.m. (K)  
8 Mile, Santa Monica, Cal., 8 a.m. (P)
- Sat. Nov. 10—1 Mile and 5 Km, Jasper, Tex. (M)
- Sat. Nov. 11—20 Km, Women's and Jr. 5 Km, Beginners 3 Km, Grosse Pointe, Mich. (B)  
1 and 2 Hour, College Park, Md. (E)
- Sat. Nov. 17—1 Hr. and 2 Hr., Cleveland (R)  
20 Km, Columbia, Mo., 9 a.m. (K)
- Sun. Nov. 18—5, 10, and 15 Km, San Diego (I)  
35 Km, Houston (M)  
MAAAU 15 Km, Philadelphia, 1 p.m. (Q)  
2,4, and 8 Miles, Arlington, Va. (E)
- Thu. Nov. 22—5 Mile Men, 3 Mile Women, Des Moines, 9 a.m. (J)  
4.4 Mile, Denver, 10 a.m. (F)
- Sat. Nov. 24—Seattle Marathon (X)
- Sun. Nov. 25—MAAU SENIOR 25 KM, LAS VEGAS (S)
- Sat. Dec. 1—20 Km, Columbia, Mo., 9 a.m. (K)  
6 Mile Boy-Girl Relay, Newton, Ia., 1:30 p.m. (J)
- Sun. Dec. 2—3 Km, Cleveland (R)  
MAAU 20 Km, Philadelphia, 1 p.m. (Q)
- Sat. Dec. 8—5 and 10 Km, Hanes Point, (Va? Md?) (E)
- Sun. Dec. 9—20,30,40,50 Km, San Diego (I)  
6 Mile, New York City (T)

Also note that races for the National Senior Postal 2 Hour Championship can be held anytime up to Nov. 30. Races must be on a 440 yard track with at least one race walking judge present throughout the competition. Entries must be submitted by Dec. 8 to Paul Schell, 184 Ash St., Waltham, MA 02154. The National Postal 1 Hour for Junior, Class B, and Master Divisions may also be contested through Nov. 30. Entries to Chuck Howard, 50 N. Polk, Independence, OR 97351 by Dec. 15.

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B—Gerald Bocci, 1353 Grayton, Grosse Pointe, MI 48230  
E—Carl Schueler, 10602 Wooddale Dr., Silver Spring, MD 20910  
F—Paul Lightsey, 2400 E. 16th St., Greeley, CO 80631  
H—Craig Haugard, 1212 W. 5th St., Willmar, MN 56201  
I—Dale Sutton, 6937 Petit Court, San Diego, CA 92111

J—Dave Eidahl, Box 209, Richland, IA 52585  
 K—Joe Duncan, 2960 Maple Bluff Dr., Columbia, MO 65201  
 M—John Evans, 5440 N. Braewood, Houston, TX 77096  
 P—John Kelly, 1024 3rd St., Santa Monica, CA 90403  
 Q—Brian Sivilonis, 21 Mencil Road, Media, PA 19063  
 R—Jim Janos, 3123 Mapledale Ave., Cleveland, OH 44109  
 S—Dean Ingram, 507 Cobb Building, Seattle, WA 98101  
 T—NYCRR, Box 881, FDR Station, New York, NY 10022  
 X—Martin Rudow, 4831 N. 44th St., Seattle, WA 98105  
 Y—Gary Westerfield, P.O. Box 448, Smithtown, NY 11707

The foot plant must be soft and should occur before the leg is completely stretched. A braking effect which would hamper the forward thrust can thus be avoided.

After the landing of the front foot, the rear leg is swiftly and slackly brought forward without describing an arc by outward turning of the foot or the knee joint. In order to obtain a "flat" low stride, an exaggerated lifting of the thigh must be avoided. Also an excessively high or wide forward swing of the foot can induce "jumping". On the whole the measured, flat leg action is characteristic of a good walker.

The following principle should be observed. Increase the stride length in line with the increase of the pace and not vice versa!

### 3.2.1.2. Trunk Carriage

The upper body is erect or has a slight forward lean. Too much body lean leads to running.

A backward lean of the trunk is wrong and indicates poorly developed abdominal and dorsal muscles. There is the danger of breaking the necessary contact with the ground.

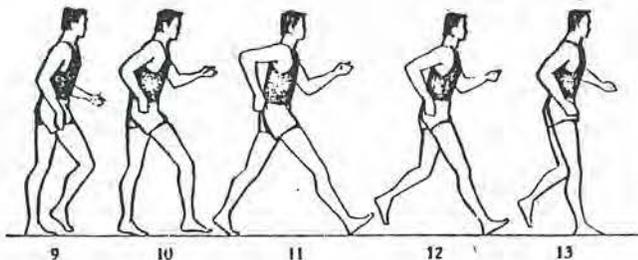


Fig. 14

### 3.2.1.3. Arm Action

By their rhythmical movements the arms assist the stride rhythm. The faster the pace, the more the arms are bent. This of course varies from individual to individual. The arm movements should aid the body thrust forward which is introduced by the push-off from the ground. This must involve the shoulders which have to counteract the movement of the pelvis and have thereby a beneficial effect on the stride length (Fig. 14).

A natural swinging of the arms almost to the mid-line of the body is the best form. A hunching of the shoulders must be avoided, since this leads to an unfavourable shift of the body's CG and tends to pull the walker off the ground.

A beginner with a short, unsteady stride, who tends to "jump" should be advised to keep his arms lower and less bent, since he can thus counteract the technical errors we have just mentioned.

### 3.2.1.4. Hip Action

Good flexibility in the hip joints is decisive for a smooth and steady pace. A walker should attempt to put one foot before the other in an almost straight line. To accomplish this the athlete must learn to walk

with a rotary movement of the hip joints. At every stride, when the rear leg swings forward, the hip must make a dodging movement to the other side. Apart from the body twist occurring in running, there is a horizontal shift in the hip and shoulder axes in walking (Fig. 15). This combined movement is a characteristic of the style of a race walker. It is a purely economic movement and does not appear unnatural or tense in a good walker. An exaggerated lateral shift of the pelvis must be avoided. It is not only unaesthetic, but hinders the forward movement.

### 3.2.2. Technical Training

Although race walking differs greatly from walking in everyday life, both have the same basic characteristics. The special technique in race walking is the result of an increased pace rate and has been fixed later by competition rules.

Most of the characteristics of walking, such as arm and hip actions, are caused by the fast speed. It is by no means the case that the "walking rules" were there first and merely had to be observed. They developed from kinetic and style considerations. Beginners should keep this in mind! When beginning to learn the technique, they should not try to simply reproduce the movements they have observed, but should just attempt to walk quickly. This inevitably leads to a sequence of movements which is close to the walking technique. Experience shows that it helps if a coach or another good walker walks alongside. A be-



Fig. 15

ginner can be more easily monitored and corrected while in motion than during training breaks. It is advisable to start learning race walking in early years. Children and adolescents learn it much easier and more quickly than sportsmen in a later age.

From the beginning emphasis should be on a slack swift movement and according to the principle: technique before speed!

#### 3.2.2.1. Special Preparatory Exercises

These comprise all those exercises strengthening the back-, leg- and abdominal muscles. Exercises lumbering up the hip and shoulder muscles and strengthening the ankle joints should also be included in work-outs. Walking itself is, of course, the best and most specific means of preparation. A race walker can also derive benefit from running, but he should thereby follow certain principles. This applies mainly to beginners.

If a former runner wishes to take up walking, he should avoid running during his training until he has a good command of the newly acquired walking movements and performs them automatically.

In all preparatory exercises and in walking emphasis should be on exercises which not only strengthen the limbs but also improve slackness and extensibility of the leg muscles.

We now give a selection of exercises:

- ① Walking at increased pace.
- ② Walking on a straight line painted on the track surface in order to learn how to keep the feet straight and parallel.
- ③ Easy shift of body weight in normal position from one foot to the other on the spot for getting the feeling for leg extension and hip gyration.

4. Same exercise but with powerful strides and corresponding arm movements.

5. All kinds of games for improving suppleness and slackness, gymnastic exercises for increasing the extensibility of leg muscles.

#### 3.2.2.2. Basic Exercises of Technical Training

The following set of exercise is recommended for developing walking technique:

- Exercise 1: Marching

*Aim:* Learn the fundamental elements of walking.

*Points to note:* Easy pacing with erect upper body.

- Exercise 2: Marching at gradually increasing pace.

*Aim:* Higher speed requires a more vigorous arm action and a corresponding push-off with the trailing foot.

*Points to note:* The arms should be flexed 90 degrees at the elbows; longer strides; more accentuated roll of foot.

- Exercise 3: Walking at medium and fast rate.

*Aim:* All characteristics of walking should be applied and smoothly coordinated.

*Points to note:* Unbroken contact with the ground and economic sequence of movements.

- Exercise 4: Walking with change of pace

*Aim:* Consolidation and perfection of technical skills. *Chall. to Buff.*

*Points to note:* Keep unbroken contact with the ground; when speeding up avoid shortening of strides. Slack walking.

Faults or shortcomings in the sequence of movements or in posture may be due to physical factors or the training mistakes. If the walker makes mistakes which break the rules or hinder an economical sequence of movement, they must be eradicated. If points of style of a walker are involved, they deserve little attention, as much time may well be required to overcome them and, in any case, success may be doubtful.

### 3.2.2.3. Fault-Reason-Correction

- Fault: Breaking contact with the ground.

*Reason:* The chosen pace is not consistent with the athlete's skills. He does not yet master the correct sequence of movements.

*Correction:* Reduce pace rate and improve style.

*Fault:* Too much backward lean (hollow back).

*Reason:* Fatigue, underdeveloped dorsal and abdominal muscles.

*Correction:* Devise special exercises for strengthening the groups of muscles involved.

- Fault: Body lift. The runner's body describes a wavy line: the result is a tendency to jump.

*Reason:* Stretching of rear leg before the heel-ball-toe roll of the foot is completed. Thus thrust is directed upward rather than forward.

*Correction:* Pay attention to a proper heel-ball-toe rolling. Keep leg in the rear position as long as possible, carry arms lower. Strengthen ankle joints by special gymnastic exercises.

- Fault: Legs too wide or walking with feet turned outwards.

*Reason:* Natural tendency of individual or wrong arm movements.

*Correction:* Walk on a straight line and watch parallel arm action.

- Fault: Persistent knee bend of supporting leg.

*Reason:* The chosen pace is beyond the walker's abilities, poorly developed leg muscles -hence fatigue.

*Correction:* Pay attention to a fully stretched leg at the knee joint, if necessary reduce pace; general strengthening of leg muscles.

- Fault: Hard landing of leading leg, leading to heel trouble.

*Reason:* Incorrect heel-ball-toe action of rear foot. The front leg is stretched too soon before touching the ground. As a consequence the walker jogs into the stride instead of gliding into it.

*Correction:* Pay attention to "soft" walking. Land high on the outer edge of the foot, keep leg in the rear position as long as possible and complete foot roll.

- Fault: Very short strides.

*Reason:* Lack of special strength. Wrong arm action; fatigue.

*Correction:* Gradually lengthen strides, try to make wide strides and, if necessary, improve arm action.

### 3.2.3. Physical Requirements and Training Methods for Improving Performance

#### 3.2.3.1. The Importance of Physical Condition in Walking

For successful performance in walking, tall athletes have an advantage over shorter men because of their longer stride. The typical efficient walker is generally a tall, lean, wiry athlete with endurance.

#### ● Endurance

The chief attribute of a successful walker is endurance. It can only be acquired through an extensive training programme in which efficiency is strongly emphasized and influenced by the mental qualities and will-power of the athlete. The latter attributes are, alas, much more difficult to acquire and are often the limiting factor in the athlete's response to training and expectations of his performance.

#### ● Strength

In walking the role of strength consists mainly in increasing endurance potential. This means that training should not be designed primarily to stimulate the building of muscular bulk but to improve the economy of muscular work, permitting the muscles to perform during a long period of time with the smallest possible effort. Nevertheless a walker should have well developed dorsal, abdominal and leg muscles for covering long distances (up to 50 km) according to the rules and at a relatively quick pace, or else it might happen that with growing distance he slackens off more and more, so that he can hardly keep his arms up and fails to achieve the necessary forward thrust.

#### ● Speed

The term speed is a relative one and should, particularly over such long distances, be considered with some caution. One may say that, strictly speaking, every walker is fast enough and that it is merely a question of endurance and fitness how long he can keep up his pace.

Special speed training is today used less and less. Athletes, especially beginners who particularly like to practice it, should be restrained.

Naturally a walker will not be able to cover the 20 km distance in less than 1:34 unless he is capable of walking the 5000-m distance in some 23 minutes. This is, however, a question of fitness and not the result of speed training.

#### 3.2.3.2. Means for Developing Physical Properties

##### ● Endurance.

This can only be achieved by a lot of training in a programme which is properly adjusted to the athlete's age, and training background. Although special (competition directed) endurance: basic endurance and general endurance are closely related to each other, we shall, especially for the benefit of beginners, first indicate the means

of developing basic and general endurance:

1. Long marches at a good pace (youths up to 20 km, raised to 35 km for 20-km walkers and up to 60 km for 50-km walkers).
2. Walking over the same distances. The beginner should not be overconcerned with achieving a fast pace, but with acquiring correct technical posture and a smooth walking style (vary the walking distances).
3. Walking and marching alternately, depending on the terrain and on the runner's condition.
4. Running on paths through forests over some 15 to 20 km (especially in spring-time).
5. Skiing.
6. Participating in cross-country competitions.
7. Continuous swimming.
8. Circuit training, using the duration method.

All the training methods should be applied at low or medium intensity. The main aim is to obtain proper circulation and metabolic rate, to increase the oxygen intake capacity, to build up the proper mental attitude towards walking long distances over a long period of time.

Basic endurance should be trained for throughout the year; during the competition season its part in the total volume of training is reduced to switch to competition directed endurance training.

Special Endurance can be developed by training schedules in which the pace corresponds to that of competition or is slightly faster. The distances in training are usually shorter than in competitions. The interval or repetition methods, as well as the duration method including fartlek, are utilized.

As a rule training on these lines is started in March or April.

#### Examples of Interval Training:

1. Frequent walks over stretches at racing pace (or slightly above it) in quantity with

short recovery intervals, e. g.  $20 \times 1000$  m with 60 to 90 sec. recovery.

2. Walks of  $4 \times 5000$  m or  $2 \times 10,000$  m with longer recovery intervals.

The above examples are for adults; reduce the volume for adolescents depending on their race distance and fitness.

#### Examples of the Duration Method:

1. Walks over  $\frac{1}{2}$  to  $\frac{3}{4}$  of the race distance at near competition pace.

2. Walks of a fartlek pattern with pace accelerations close to competition speed.

Distance for adolescents about 10 to 15 km, for adults 15 to 30 km.

3. Competitions over shorter distances.

#### ● Speed

Special speed training is rarely used today. Distances to be covered at a considerably higher pace are included in the training for competition-directed endurance (e. g. 10 to  $15 \times 400$  m).

#### ● Strength

A sportsman with a good athletic background is at an advantage also in race walking. Junior walkers should particularly bear this in mind when planning their training

build-up. We distinguish between general and special strength exercises, the former being of greater importance, especially for beginners.

#### General Strength Exercises

These are exercises which are particularly suitable for every young sportsman. Important examples have been stressed in the section "Special Preparatory Exercises". It should be noted that workouts with excessively heavy weights should not be the main concern; preference should be given to exercises which do not only strengthen the muscles but also increase their extensibility and flexibility at the joints.

An implement that can be used in many ways and satisfies almost all demands is the medicine ball.

#### Exercises

1. With barbell on the neck (low weight, large number of repetitions). Trunk bending forward-trunk turning left and right sideways.

2. Exercises with medicine ball: e. g. throwing with both arms forward and backward; holding the ball between the feet in a sitting position; leg circling.

Game: Throwing the medicine ball over a string. The ball must not be dropped.

3. Following other track and field exercises.

#### Special Strength Exercises

Exercises which are directly related to the walking movements or serve to strengthen specific groups of muscles.

The best strengthening exercise is, of course, walking itself. Great benefit can be drawn from walking in hilly country against a strong headwind or on slightly upward sloping streets. Particularly the latter

requires a strong push-off with the rear foot, which again contributes to the strengthening of the ankle joints. Wearing heavy clothes in winter time will serve the same purpose.

There are also specific jumping exercises which may be recommended for strengthening the ankle joints.

When setting up a weekly training programme the level of development of the athlete (beginner or advanced) as well as the training, depending on the periods of the year with their corresponding tasks, must be taken into consideration.

The following examples of a training week are intended for an athlete in the build-up period of training (see Tables 13 and 14). Special distance: 20 km, best time recorded approximately 1 : 34 : 00.

Table 14 Weekly Schedule of Training during the Competition Period (Build-up Training)

Day	Training Objectives	Training	km
Monday	Basic endurance	20-km walking	20 km
Tuesday	Special endurance	15-km walking fartlek or pace walking	15 km
Wednesday	Basic endurance	20-km walking;	20 km
Thursday	Basic endurance	15-km walking	15 km
Friday	Special endurance	Interval training $10 \times 1000$ m $5 \times 2000$ m	20 km
Saturday	Basic endurance	25-km walk	25 km
Sunday	Supplementary training	possibly 10-km run	10 km
			125 km

Table 13 Weekly Schedule of Training during the Preparatory Period (about February) (Build-up Training)

Day	Training Objectives	Training	Total km
Monday	Basic endurance	20-km walk	20 km
Tuesday	Supplementary training	Game 10-km walk	10 km
Wednesday	Basic endurance	30-km walk possibly with accelerations	30 km
Thursday	General and specific strength	30-50 min. exercises with medicine ball, ankle workout, 10-km run	10 km
Friday	Supplementary training	Game	
Saturday	Basic endurance	35-km walk	35 km
Sunday	Supplementary training	Game, gymnastics, possibly easy walking	10 km
			115 km

Note: I had a major booboo with the August issue--forgot to put Second Class Postage Paid At Columbus, Ohio on the mailer page. So essentially, I mailed it without postage. However, only four came back to me for postage and I forwarded those First Class. I know others were received from comments and renewals I have gotten. However, if you didn't get your August issue, let me know. Also, you will note I still don't have the pictures I said I was holding in August printed in this issue. Now I have some more. Maybe next month will be a pictorial special.