/////// COMMENT //////

"" ATTENTION ALL MILERS!

The British Milers' Club is completely opposed to the practice of UNDERMINING THE ATHLETE'S CONFIDENCE in his coach. We say, Chapse your coach carefully and give him TWO YEARS to make a better athlete of you. We are utterly opposed to National A.A.A. Coaches, A.A.A. Staff Coaches and Senior A.A.A. Coaches imparting their views as the correct ones in opposition to the athlete's views based on his coach. However, we believe that it is the duty of the coaches named above to express their views in print for all to see, also to lecture widely on proven scientific data known to have brought about results with their proteges. There is a subtle and important difference over the way coaching information is imparted. At regional A.A.A. and B.M.C. training week-ends, the advice given is GENERAL. If a coach on such a course feels that an athlete's training is all wrong it is his DUTY TO Write TO THE ATHLETE'S COACH GIVING HIS DETAILED OPINION. IN NO CIRCUMSTANCES MUST HE TELL THE ATHLETE THAT HIS TRAINING IS WRONG. TO DO THIS IS NOTHING SHORT OF A CRIMINAL ACT, for he may well destroy a flourishing partnership between coach and athlete.

BMC NEWS

1970

CONTENTS

DENIS WATTS AND BILL MARLOW WRITE A MASTERPIECE -

JOHN BOGGIS TELLS ALL -

THE ACHILLES TENDON QUESTIONNAIKE ANALYSED -

ROGER BANNISTER REVIEWS DE VRIES'S BOOK -

HYPNOSIS IN TRACK COACHING -

FROM 4MINS, 8 SECS, TO 3MINS, S7SECS, (EQUIVALENTIIN

THREE MONTHS -

NUTRITION FOR MILERS -

WHAT THE PAPERS SAY -

QUOTES FROM THE GREAT -

NEWS FROM THE REGIONS -

FUTURE PLANS BY THE B.M.C. -

HOW TO IMPROVE BRITISH MILING - MEMBERS SPEAK OUT -

A WORD FROM THE EDITOR

This is the last issue of the B.M.C. NEWS to be edited by Frank Horwill. The National B.M.C. Committee have decided that frank should have a rest from this job and the task is being undertaken by the B.M.C. Chairman, Staff Coach Harry Wilson and Pauline Moult. Frank is turning his journalistic attention to a Southern B.M.C. magazine and a Staff Coach journal for youths and juniors.

The 1970 track season has got off to a flying start with the B.M.C. having a finger in the racing pie. On April 1st at Crystal Palace two invitation races were staged in conjunction with the S.C.A.A.A. The first ever 2,000 metres for ladies won by Rita Ridley in 6 mins. 12 secs. and an exciting \$\frac{1}{2}\$ mile by Andy Carter with 2,56.5 in bleak conditions. On April 22nd at the same venue, Norine Braithwaite ran a scintillating \$\frac{1}{2}\$ mile in 3mins.30.2 secs. and Andy Carter headed the field home in a 1,000 metres in 2mins.26 secs. On April 28th at Stretford, Ricky Wilde ran the fastest mile of the year and equalled his personal best with 4mins. 1.5 secs. The Southern B.M.C. not to be outdone by the N.W. B.M.C. staged the fastest ladies mile for two years with both lane Perry and Barbara Banks recording personal bests with 4mins.51 secs. The N.W. came back with the second fastest mile of the year on May 17th when Andy Carter recorded 4mins.3.9 secs, a personal best at Liverpool. The Midlands B.M.C. staked its claim in the honours when Gillian Tivey ran a 4 mins.27.3 secs. 1,500metres in Warsaw on May 4th, the fastest outdoor metric time of the year when its member, Norman Morrison, did a 3mins.44 secs. effort with Phil Thomas chalking up a 3mins.46 secs. Wales began to shine as Bernard Plain won our first mile of the year in 4mins. 16 secs. lworth 8 secs. better) and a week later did 3.48.0 behind Cardiff's Bob Maplestone coached by our Welsh Regional Secretory, Dave Williams.

Behind the big names of our senior athletes we have some great junior prospects, some of these were on show at Merthyr Mawr at the U.K. Junior Commission week-end staffed by Harry Wilson, Frank Horwill and Denis Watts. Remember these names:- Paul Dennis, Martin Mills, Peter Francis, Brian Slocombe, Ray Smedley, John Cadman, Margaret MacSherry and the Yeoman twins. Meanwhile, age records tail to B.M.C. boys and girls, Andy Bernett broke the 14-year-old world record for the mile with his dmins.24 secs., he can still go laster for he has done dmins.02secs. for metres. Sandra Marcuis, coached by Jack Harris of Wattord and receiving a weekly training session from Frank Horwill, by agreement with Jack, did 4mins.38 secs. for metres in the Herts County Champs.

The Eastern Counties 8.M.C. under the generalship of Cecii Smith and an enthusiastic committee have arranged the National Senior Ladies 8.M.C. Championships for August 23rd at Harlow. Also, to be held in Harlow is the inter-region 3 x 1,500 relay which was a thrilling race last year at the Crystal Palace. Sponsored by the local authoraty, this will be a race to see on July 4th.

in Scotland, Craig Douglas who lives on the border with Northumberland, has recorded some useful victories in the National League Division 2 and in the opening of the Games stadium.

We wish to remind members invited to sponsored races that once they accept an invitation to run THEY MUST RUN unless injured or chosen to run for THEIR COUNTRY, the penalty for this contravention is NO MORE RACE INVITES FOR A YEAR. The A.A.A. are in full agreement with this. Club secretaries, county secretaries and regional A.A.A. secs., please note this when an athlete belonging to the B.M.C. refuses your request to run at such and such a meeting. By compelling him to run you will harm his future race prospects.

We close by reminding you that June 16th, June 30th, July 14th at Strettord will see some more fast miles by Eddle Powell, 7 Trinity Avenue, Sale, Cheshire, drop him a line if you want a race against the watch.

oOo____

MEMBERS HIT THE HEADLINES

Teenager under 4 minutes?

Phil Banning (19) looks hise fulfilling on pro-pincy that he will become Britain's first ever-ternage sub-four minute miles. Competing for Willanova Umioristy, he recently useful oil a 4-05.8 mile and a 13-46-8 5 miles spersonal best — not bad for a single afternoon's work."

SPECIALIST CLUBS COMMITTEE

SPECIALIST CLUBS COMMITTEE
The new secretary of the Special of Clobs Committee is Frank Horwill. 201 Sumaira Read. Leaden N W. 6. (01.72) 3114 and 01.435 3271), who would the to hear frain all specialist dub series read assistance be the near future it is hoped to compile, with the and of all specialist clobs, a register of all indoor familiates for event training and a first of recommitted equipment tested by specialist clobs.

Norine Creates An Impression

"IT was not the aroung, not the lone, but the WAY of wording," enthused Tony Fister, couch of Rita Ridge, after watching 19-year-old Northe Braithwaine cruns away from the field in the BMC 2 mile rase at Crystal Palace on April 22nd. Northe's long and "sem stride preveited cause a bit of comment all round.

May 9th

RICKY WILDE 4:01.5

THE North Western area of the BMC marted the vestern with a rule race at Longton Park, Sirerford on April 28th, it was unfortunate for Ruley Wilder that the weather presented the first such four running mile of the season. The wind, rain and peofs on the track were all against a fact time but after a first lay of '93 by Alan Gertard, who still led at 88by in 2016. Wilde reak up the running with only Davie Hogg in reach, Ricky passed the helt in 3912's (Hogg 304-9), and, cheered on by the strendbe crowd, sprinted around the final circuit in '900 to equal his best, of 4015's Result: 1, R. Wilde (Man. & D) 4015'; 2, D. Hogg (M. & D) 4/102'; 3, C. Bury (Abager C) 4/105's 4/105's 4/5 D, and (Lpool) 4/105's 3. M. Peake (Dby) 4/13/4's 6, P. Carray (Preston) 4/13/8'; 3, M. Peake (Dby) 4/13/4's 6, P. Carray (Preston) 4/13/8'; 3, Garrard (L'pool) 4/15.

in the Women's 1500m. Barbara Metcalle led all the way in her first mee over the distance, to win in 4.500, 1, B. Metcalle (Stretford) 4.500; 2, J. Lookhead (Aradale) 4.518; 3, B. Bridge 515.8.

JOHN WHETTON'S Midland BMC Training Day

SUNDAY, 7th JUNE, 1970

Berry Hill Park Mansfield, Notts

(Register at 10 a.m.)

BRING A PACKED LUNCH, TEA AVAILABLE, SENIORS, JUNIORS, YOUTHS, BOYS, LADIES AND GUESTS WELCOME TO JOIN IN THE SESSIONS.

Coaches in attendance will include Staff Couches Harry Wilson, Frank Horwell, Senior AAA Couch Tony Saunders and WAAA Coach John Tisey

* * Apply to John Whetton, Shirrinku, Chapel Lane, Ravenshead, Nottingham, enclosing 2/6d, in stamps or P.O. payable to John Whetton. Please state on your application your best middledistance times.

SESSIONS WILL INCLUDE FARTLEK THE WHETTON WAY IN SHERWOOD FOREST AND TRACK WORK.

Lillian Need Not Have Been So Worried

THE occasion, the London Olympiades club I championships, and the setting, West London Studioti, seere a far cry from Mexico City or Athens but Lillian Board enight have been consessing a world championship judging by her pre-ruce anxiety last Sunday.

race anxiety last Sunday.

Nhe was about to make her miling debut in a BMC organised nice and she really didn't knew what to expect. Her best 2 mile time tried of 3.57 suggested she should be carpable of a time under five minutes at her limit attempt, but with someone of Lilian's class and competitive flair there was always a chance of her producing something facily semational for a nervoe. De the other hand there was the dread which Lilian candidly admitted before the race—of "making a complete fool" of herself.

a complete fool" of herself.

As a turned out, it was the middle coome that prevailed. In third place throughout, she lapped in 710, 338, 783 and 76.1 for a very solid histories effort of 4 55.7 made even more notable by the fact that she ran in the second has practically throughout as the marde was particularly soft. I have Ferry, naturally deappeointed at her omession from the team for The Hagos and eager for a fast race, made the early numery, but it was Barbara Banks who led for most of the race. The two Northern parks, who were making round trips of over 400 miles for the neer—such is their enthusiasm, opened up a 5-6 yards gap on Lillian that remained fairly constant used they pulled well clear in the final furlong.

Jame overtook Barbara in the straight to use in

Jane overtook Barbara in the straight to u.in in 4:31.5 against 4:328—personal bests for both, although they have run relatively faster over

When I was an R.S.P.C.A. Inspector in Somerset I cautioned a gypsy tor carrying small pigs by their ears in a market. He replied that he would carry me by my ears if I did not look out! I challenged him to try. We walked to a nearby field and stripped to the waist, lit was a very hot August day. We squared up to each other and the gypsy came at me with head down, arms flailing like an horizontal windmill. I gave him a terrific left hook but the punch landed badly, hitting him on top of the head. It gave me excrutiating pain, I looked at my hand and noticed that the thumb-bone had been put out of shape. My hand was useless. I thought, "My God, this is terrible, I am fighting with one hand." Then, from the past a voice from my old boxing instructor whispered in my ear, "When in trouble, stick your chin inside your shoulder and keep moving, wait for an opportunity and cross with a right." I did just this, cutting my adversary above the eye. The moral of this story is (a) Never give up hope when things look very black. (b) listen to the advice of those with a wealth of experience and achievement behind them, (My Instructor, Andrew Newton, had 500 odd fights and was comparitively unmarked.) you never know when you'll need it.

I do not like athletes with too much talent. They get success early on in lite without too much effort. When they get older and have to meet others on equal terms they buckle when real work is required of them. I have coached a boy who was a junior wonder and a girl who was an under-21 world-beater. Both didn't have it when PROGRESSIVE WORK was required and were passed by athletes of less talent but with the will to train hard and listen to logical advice.

Coaching middle-distance for me is a religion, I expect my proteges to be willing disciples.

Trivial training does not win important races.

The world's greatest middle-distance coaches have stuck their necks out and stated, "This is THE WAY to success." They have not tailored their methods to suit the ballerina demands of individuals who have stated "I musn't do this or that because I don't like It." They have had the courage of their convictions and have proved their point. They have had to face criticism from the orthodox faceless within their countries. Lydiard was said to be "dangerous", Cerutty was described as a nut-eating, prancing, exhibitionist, Igiol was reterred to as the Stalin of the track, Gerschier was accused of Teutonic soul-less efficiency. Yet, they all produced world record holders, all but one produced Otympic Gold Medallists. All have become household names in the middle-distance world and their methods are used by thousands of athletes. Meanwhile, the faceless wonders, with their "expertise" pour out scientific reasons why these men are wrong and their methods not applicable to us. In Britain we possess more middle-distance experts than any other nation, but we do not have the results of the above named nor do we show any likely possibility of producing men of such calibre.

It seems to me that our milers either train too hard or too little. The art of getting an athlete right for the big occasion must be one of judicious severe sessions intermingled with very relaxed ones so that the runner has an abundance of stamina and speed behind him but Contd. Page 5.

MANCHI STI R LEAGUE

At Clough, December 13th

1. D. Blitcher (Manchester & Dot) 12:15

2. R. Wicke (Manchester & Dot) 13:15

3. R. Haswell (Safriced) 12:45

4. D. Farmer (Safriced) 12:45

5. S. Clegg (Safri 32:50

6. R. Daving (Safri 32:45

7. N. Carringson (Safri 32:50

6. R. Daving (Safri 32:45

7. N. Carringson (Safri 32:50

6. R. Daving (Safri 32:50

7. S. Cutton (Safri 33:50

7. S. Cutton (Safri 33:50

7. S. Cutton (Safri 33:50

7. S. Cutton (Safri 34:50

7. S. Cutton (Safri 44:50

7. S. Cutton (

Wilde Beats Hill For East Lancs. Title

At Rochdale, January 24th

TERRY COLTON

TERRY COLTON

Terry to the started manning when George Grandy became our Games master, was been for his beam our Games master; was been be at all, bland they carried Mediander who has shot to promunease when he can I State master in 1989 at the age of 15 has writer. He made as all read-based in 1 think it sac at first the hirdle and exhelicition of mining hard all the way, and winning, I do not have any particular interest other than athletics. He comming for all the way of the property of the service of the master of the continues the pent on athletics and school over?

Certainly Terry takes his training serrounds, for his schooless are quote formulable and blody of master mann service misers writer. In the winter I rote mannly on the coals, like most people I do sessions of had make or that miles runs, with 5 minutes set between each effort. When I get on the track I do sessions of 120,890 with 90 sec. receivery or maybe 3 sets of 8 or 10 quantities with the services and five minutes rest between each set. Otherwise I put in 1 sets of 15 furlange with a minute's receivery and five minutes rest between each set. Otherwise I put in 1 sets of 15 furlange with a minute's receivery and five minutes rest between each set. In the summer I do sessions of 6,220, notify ag and then 8-12,440 south 90 second receivery. Unit is waited with other interval work, and spend is excessed more, of course.

In what was rather a disappointing year for Terry, he did not wan either of the big stoce he was among at 16 furlange direct in the English schools intermediate 1999 and second in the English schools intermediate 1999 and second in the AAA youth ratio, where possibly a tacknal mistake cost him the title. Closely following the 612, 2019, J 132 page of the leaders in that new, Terry Macked woming of the last bend and bears great for the last time. He did not move rato the mode into once he was in front. however, and Gobbon was able to rully and coole again, gallantly foreign finished post for the last time. He did not move that

Sather enerobadowed by Ian Whetig his training partner, last someour. Foreign College will be backing to come into his own this women "Eventually I want to win an Ottomer gold medal, and therefore be worth Champson, he was Certainly with George Gandy's fratesome training saltnesses there will be no short outs to this goal. Foreign College is in to our. If he does not succeed it will not be for want of frying

NORTHERN COLLEGES CROSS-COUNTRY CHAMPIONSHIPS

CROSS-COUNTRY CHAMPIONSHIPS

Art Monger, January 17th

L. J. Ring (Abegger). 2022

2. C. Bart (Abegger). 2022

3. D. Nedwoll 8M andres

4. R. Hallman, (Mastelley, 2005). 5. M. Vennon

(Al) 3018; 6. G. Rieseles 2024; 7. F. Mockaure

(Al) 3018; 6. G. Rieseles 2024; 7. F. Mockaure

(Al) 3018; 6. G. Rieseles 2024; 7. F. Mockaure

(Al) 3028; 6. G. Rieseles 2024; 7. F. Mockaure

(Al) 318; 6. S. K. Hazeltine (Al) 3108; 9. C. Mat
lesen (Mad) 31-09; 10. P. Consling (Mad) 31-28;

(1) G. Berley (Sr. J.) 313; 12. M. Gabbs (Mad)

31:81; 13. M. Fincher (Al) 32:09; 10. 32; 31; 16.

R. Woodward (Al) 12:44; 17. W. Marton (Sr. Ji

22:55; 18. D. Morris (Al) 32:59; 10. J. Potter

(Ches) 32:39; 20; B. Marphy (D18) 33:17. Teams:

1. Absager 38; 2. Wadeley 39; 5. S. Johns 137; 4.

Alvager 38; 12:2; 5. Shyfield 218; 6. De La Salle

22:57.

is fresh for bettle on the day.

I am becoming more convinced that the ability to train at 2,000 metres and a mile are the keys to miling success. A sub-4 minute miler should acquainthimself with a time of Smins, 25 secs, every other week for 2,000. Females should have no difficulty with ten seconds per lap slower than for their best mile, e.g. Rita Ridley, 4mins, 36 secs. for a milelestimated) Omins. 35 secs. for 2,000 metres. Gradually these times can be worked on until they drop to 5 minutes for the man and 6 minutes for the lady. Sub 4 milers should be at case with 2mins. 55 secs. for 2 mile while ladies must think in terms of 3mins. 25 secs. for the distance.

The success of our three milers at the mile event is constantly being shoved down our throats. Ninety per cent of their training is scrobic running breathing in the same amount as they use running). During the track season THEY RUN THREE TIMES THE TOTAL WEEKLY QUANTITY OF OUR SPECIALIST MILERS. While accepting their success in the British ranking lists, when we turn to the world's great milers we note that they can run 400 metres in sub 46 secs., can do 800 metres in under 1 min. 46 secs. No amount of aerobic running can make for world class in this sphere. What then, is the enswer? The enswer is in the type of training I advocated for JIM DOUGLAS and GILLIAN TIVEY, both vastly improved runners in a short space of time. The scientists must be given credit for their findings. For the 1,500 metres and mile, 50% of the total work done must be devoted to stamine and 50% of it to knowledge of the B.M.C. EQUIVALENT TABLETONE to be published in TRACK TECHNIQUE in the UNITED STATES). tempo training(race pace and short rest) and sprinting. This is the

Here is the plan for a woman miler aiming for 4mins, 40 secs. for the mile or 4mins. 20 secs. for metres:-

Sunday - Estimated two mile pace track session. 3 x 1 mile in 5mins.

5 secs, with 400 metres jog rest[3 mins, 1 Monday - 10 mile road run completely relaxed alming at no time. Tuesday - Mile pace session. 3 x 800 in 2mins, 20 secs, with 400 Tuesday - Mile pace session.

Thursday - 880 page session. Friday - Road run 10 miles.

4 x 200 in 28 secs, with 200 jog rest. Saturday - 110 pace session.

Sounday - 110 page seems and repeat.

Sunday - Sprint session. 10 x 60 full out from blocks, welk back rest.

Monday - Fartick released for an hour.

Tuesday - Oxygen Jebt session. 3 x 150 full out jog 70 rest. log 400 Tuesday - Oxygen Jebt session. rest and repeat.

Wednesday - Road run 10 miles. Thursday - START CYCLE AGAIN WITH TWO MILE SESSION.

Racing should be contined to once every 14 days so that the cycle gets completed. The cycle should cease 48 hours before serious races and the sprint session should be left out the week of competition. It the athlete feels better training right up to the race, then, fartlek the athlete feels better training right up to the race, IT MUST BE In very pleasing and easy terrain should be practised. IT MUST BE REMEMBERED THAT SEVERE TRAINING DEPLETES THE MUSCLATURE OF GLYCOJEN AND THIS IS NOT REPLACED UNTIL 48 HOURS HAS ELAPSED.

Assuming that the athlete limbers up and cools off a mile before every session, the total stamina mileage is 35 miles in a week. This is finely balanced with race speed and faster than race speed.

A male miler with a time of 4mins. 8 secs. aiming to go for under 4 minutes in the first instance would have a cycle somthing like this:

Contd. Page 7.

AAA Indoor Championships

At Cosford, January 30th 31st

Blistering Finish By Ricky Wilde

MIRLEIRS WIEKLY

Tony Simmons Wins Eastern Title

CHINGFORD & DISTRICT LEAGUE

1 d

¢

2

XO

At Victoria Park, January 31st

1.	M	5M Road River Quante (Victoria Ek)	23.56
2	M	Macklery (Walthamstow) .	21 53
3.	16.	Hutchin (Eton Manor)	23.53

BANTER WINS IN SICILY
Mike Baxter and John Caine finished fiest and
second, deleating the cream of Italy's middle distance talent, in a round race of nearly IZam at
Catama. Socily, on February Ind. Result: 1, Baxter
15:48,7; 2, Caine 33-62; 5, Arcive 31:08,2;
4, Cmdolo 34-44-7; 5, Arcive 35:08.2

LONDON COLLEGES LEAGUE

At Trent Park, January 21st

5.	N. Marrison	(Imperial, College)	28.16.
5	J. Newcombe	Bloyal Vet College)	20:45
		(London School of Loon)	28.53

NORTH MIDIANDS LEAGUE

At Derby, January 14th

1. D. Lem (Leignter Frentanian)	39,100
 J. Cley (Deeby & Cty). 	33,30
2. A. Domles (Derby & Ctv)	33.40

Southern C.C. Championships

At Parliament Hill, February 7th

BEDFORD-A LAW TO HIMSELF

Seniors
1 D Rections (Shafteshors) 45.50
2. W. Mullett (Brighton & Hove) 46-45
3. R. Holt (Hercules-Wimbledon) 47 01
4. M. Beever (H.W. 47.21 5. D. Holt (H-W)
47 10; 6, T. Brigolt (Med) 47.33; 7, R. Richardson
(B.hth) 47 51; S. H. Altsmann (Ver) 42,87; 9, B. Ellis,
(TV3t) 47.58; 10. 1. Macmillan (Inv) 48.05; 11.
R. Ingleton (Ports) 48.07; 12. K. Darlow (Read)
48 16: 13. G. Biscoe (Mitt 48 22: 14, J. Valentine
(Thames H & H) 48.23; 15, J. Roberts (NLH) 48.
14: 16, H. Starkey (Phames H & II) 48:30: 17, M.
Thomas (TVH) 48.33; 18, M. Hyman (Ports) 48.
42; 19. R. Gevers (SLH) 48-64; 20. M. Absolom
(E. Massor) 48.47; 21, R. Melvern (Wind) 48.48;
22. A. Moore (Hill) 48-49; 23. Gooff North (Bel)
48.51-24, G. Stevens (Read) 48.52; 25, I. Wilson
(B'hth) 48.53.

Iuniors
J. D. Bertford (Shaftesbury) 12.12
9 I I was (Feldborn) 35.13
) I Descripe (Walton) 15.23
A 1 15 Monra (B & Ht 35 1); 3, 1, 1900mon trans-
teigh, (b) 13 98 6, M. (THara (Higgs) 23 41; 7, 45.
Though (Thoursek) 34.01; X. P. Whitcomb (B & H)
Section of the College Court (TVH) 34, 12; 10; K. Publish
of agents 54 [4: 1] R. Minness (100) 36 [2] [4: 30.
Dennison (AFD) 54-51: 13, 4., Reed (Middle)gn (3)
34.33; 14, W. Whoting (Bruck) 54.54; 15, T. Phipps
(Ver) 14 15; 16, R. Church (Osned) 16 38; 17, B.
Dabrowski (Read) 54.48; 18, P. Balchin (Dork SP)
34.52; 19. C. Rawlings (Chelms) 54.56; 39. R.
Martin (Walt) 34.57; 21, T. Beagent (Here Wim)

ATHLETICS WEFKLY

Joyce Smith Regains Southern Title After 10 Years

Ar Chigwell, February 7th

ATHLETICS WEEKLY

Northern Women's C.C.

At Cleckheaton, February 7th

Barbara Masters Tough Conditions

B. Banks (Wellager) 25 00 M. Ibberson (Berry & Radelille) 25 16 P. Leves (Bury & Radelille) 28 50

/////////////
HORWILLISMS...Continued

4 x 1 mile in 4mins, 30 sees, with Sunday - Three mile pace session. 200 metres log rest.

Monday - It hours road run relaxed,

Tuesday - Two mile pace session . 6 x 800 in 2.14 with 100 metres jog

rest. Wednesday - 10 hours fartick.

4 x 400 in 55 secs. with 400 jog rest. Thursday - 880 pace session.

Friday - Ten mile road run easy.

Saturday - Mile pace session - 1 x 1,000 going through 800 in 2 mins. and accelerating to the 1,000 mark. Complete rest then 10 x 400 in 60 with 200 jog rest.

Sunday - I hour Fartlek. Monday - Guarter mile pace .- 4 x 200 in 25 secs. with 200 jog rest. Then 400 jog rest and repeat.

Tuesday - 15 mile road run relaxed.

Wednesday - Sprint session - 15 x 60 full out from blocks.

Thursday - I hour fartlek.

Friday - Oxygen debt session - 3 x 150 full out jog 70 rest. Jog 400 rest and repeat twice more.

Stamina mileage per week would be about 50 miles and the total around 65 miles per week. This is twice as much as the average British mile The track combinations are numerous, at specialist does each week. The track combinations are numericant four to each pace. This is where a coach can use his ingenuity to keep the sessions interesting,

further evidence for weight training as an aid to respiration and the acquisition of speed is provided in PHYSIOLOGY OF EXERCISE by De Vries. In the expiratory phase of heavy exercise, the passive elastic recoil of the ordinary muscles of breathing is greatly aided by the active contraction of the abdominal muscles. The abdomina muscles serve two important mechanical functions: (1) raising the The abdominal Intra-abdominal pressure, which results in greater intrathoracic pressure to aid in expiration, and (2) drawing the lower ribs downward and medially. The lateral muscles(obliques and transversi) are more important than the recti abdominis. When doing abdominal exercises with a weight behind the head, there should be an alternating action going to the left of the knees and then to the right, rather than straight up and down from the prone lying position.

It has been shown that gains in strength, whether brought about by isometric or isotonic training, are associated with SIGNIFICANT GAINS IN SPEED OF MOVEMENT, particularly where the strength exercises simulated the movements of speed, but strengthening the muscles without simulation also aids speed. Authorities that have come to these decisions are E.F. Chui, "Effects of Isometrics Authorities that have come to these decisions are E.f. Chui, "Effects of Isometric and Dynamic Weight Training Exercises upon Strength and Speed of Movement," RESEARCH QUARTERLY, 35:246-57, 1964.; D.H. Clarke and and F.M.Henry., "Neuromotor Specifity and Increased Speed from Strength Development." RESEARCH QUARTERLY, 20:215-05- C.B. Disking Strength Development," RESEARCH GUARTERLY, 32:315-25; G.B. Dintiman, "Effects of Various Training Programmes on Running Speed," RESEARCH QUARTERLY, 35:456-63,1964.

All milers should know the foods which aid their event. Lack of calcium leads to loss of muscle tone and susceptibility to injury, also to cramps, failure of blood to clot and acidity of blood, The best source is hard cheese and a glass of milk a day. We seriously short of Vitamin C in our diets, cooking destroys it almost entirely. Either take it via oranges or blackcurrent or tablet form. The last named must be 200 milligram tablets and one a day will suffice. When a fever threatens you can take SEVERAL THOUSAND MILLIGRAMS without III effect. Unlike other vitamins it cannot be stored so It must be supplied daily. The respiratory membranes must be kept in condition, Vitamin A does this, its best source is from hallbut-liver oil, liver and carrots. Iron keeps the blood supplied with oxygen without which milers cannot train

COMPRES STREET

Thelwyn Bateman's Close Victory In Midland Women's

THEI WAY BATEMAN gened a narrow deci-sion over Brathfeld's Angela Levell at the finish of an exciting settler race. As usual Angela-tios, the lead from the start and wax in continued for the first lap and a half before Thelayin moved through from with to second. Latching Levell in more 40 saids from home, she springed on to look the tage one second on from the team race was equally alone, though this time Baschfield prevailed over Coventry, Godiva, by a point.

Angela Holt was an easy winner of the Inter-mediate event, while Mary Stewart employed a similar manger of visitory of the lumor affair. Many has remained unbeation this single rin the Midlands, though her club could on this occa-sion bash on higher than third to Westbury and Topton, Elame Charles task the Minur Guls event by 20 seconds.

1 | Bateman R overtex Coding) | 2143 2 | 3 | Levell (Brighfield) | 2144 3 | 8 | Barnes (Westbuly) | 2156

ATRICE THA WEEKLY

WORLD & EUROPEAN "TOP TEN" 1969 PART TWO: WOMEN

1, 10.7 Januslam Johlschom (Cz) 4, 11.9 Maria Gemmers (Noth)	SHIFT A 2 Lat Borne A S A 3 Specifical Reserved
4.12.0 Paole Pign (Paly) 4.13.2 Louiseda Brogina (SA)	1 4 1 105 0 101 1111
4:13.) Ilia Keiser (Neth) 4:19.2 Regen Kleisen (E. Ger.) 4:19.9 RITA RIDLLY (UK.) 4:16.6 American Nethel Disco 6:16.3 Discis Bown (Lds) 4:16.8 Francic Lusiem (US)	The Robe Learners of the control of
4,116 American Bosman (Noth) 4,180 Guntride Hoffmeister	er tres Marste eller

Beryl Davies Trophy

At Bexley, January 31st

MacSherry Leads Club To Victory

1. M. M.	acSherry (Cambridge)	
2. I. Pa.	ge (Cambridge)	
3. E. P.	encur (Invicta)	J.
4 S. Force	naurice (AFTh 18.14, 5, A. Barrass (AF)	12)
18 31 A	1. Ceshall «Cambo 18-35; 7, S. Fosti	eγ

CHALLES WELLED

GOMMONWEALTH "TOP TEN" 1939

-Compiled by Stan Greenberg -

1500 METRES

Salvia Posts. Jane Perry 1 D. S. Time Perm.
2 W.7 Jean Page
4 277 Jean Page
4 277 Mary Speedman
4 28.1 Mary Speedman
4 28.1 Margani Bencham.
4 28.5 Margani Bencham.
4 28.5 Margani Bracham.
6 28.5 Margani Bracham. 1500 METRES

NOT METRES

The anaerobic

or race, the best source is meat, eggs, catmeal, peas and beans. It is very commonly deficient in middle-distance runners, particularly women and for this reason it should be taken in tablet formiterrous glucinatel. The release of energy from carbohydrates is not done efficiently unless Vitamin Bl Is present in the diet each day, this can best be supplied by taking brewers yeast tablets, although Yeast is also the anti-neuritic peas and beans are a rich source. drug and keeps nervous energy well supplied.

it is now "old hat" that serious training depletes the musclature of glycogen which is responsible for producing energy. This is not replaced until 48 hours has elapsed. If during that 48 hours you further deplete your system of glycogen by avoiding all high carbohydrate foods(sugar, honey, cereals, potatoes, fried foods,etc.)
your body will crave glycogen. If you then switch to a starchy your body will crave glycogen. If you then switch to a starce diet with a vengeance, you will enrich your musclature with a greater quantity of glycogen than is normed, this is called a "carry-over" action. On the day of the race, when your oppose action. On the day of the race, when your opponents are In the final stages of the race their glycogen content will be near to exhaustion, yours will not, in a close finish, all things being equal you will have added strength to increase pace. So far, this has been proved with the MARATHON event, further work needs to be done In middle-distance running before definite views Con be 31 ven

The success of Gillian Tivey in the W.A.A.A. Indoor Championship
The success of Gillian Tivey in the Commonwealth Indoor record, 1,500 metres, where she lowered the Commonwealth Indoor record, is no surprise to those who know Gillian. A year before, almost to the day, Sillian joined the B.M.C. as a Smins. 12secs. miler. Coached by her father he called in me as a consultant coach and as a team we worked for the good of Gillian. The result was that she low her mile time to imins. 53 secs., her 1,500metres time to imins. 27.3 secs., her 800 metres time to 2mins. It secs. and so on. Prepared to Increase her work-load in the winter on 1909-70 she The result was that she lowered gained tremendous fitness but lost three weeks due to sinusitis, but came back again with resolution. Her example is one that many milers with more natural talent should note. For Gillian has caught up and passed the "train the same each year" mob and will go even further before she retires.

Ellinan Board is to try her hand at the 1,500 metres and mile events this season. Her first race may be on April 22nd at the Crystal Palace in the # mile event. This will be followed by a mile race in our Southern B.M.C. Championships. Using my equivalent table, now accepted as 90% accurate I forecast the following times in her new field:-

1,500 METRES 4mins 18,6 4mins. 38.6

The above figures are based on the 17 second rule of adding this number to her best 800 metres time for 1909. However, if Lillian were to utilise the world record conversions of 12.8, her time would be 4mins, 30.4 secs. for the mile and 4mins, 10.4 for metres. If she were capable of doing a RITA RIDLEY, running through the 800 metres only SIX SECONDS OUTSIDE HER BEST 800, and coming up with a pro rata time for the second half of the race, lillian would record a time of 4mins. 20.8 for the mile! and could become the first women to break Aminutes for 1,500 metres!

However, Rita Ridley, will improve on her present U.K. time and the shrewd Tony Elder who guides this courageous athlete, will have a few aces up his sleevelRemember the Mile of the Century and the changed Rita three months later?).

My season's forecasts are: JIM DOUGLAS to break the British mile record, Paul Dennis and Ray Smedley to break four minutes.

UK WOMEN'S RANKINGS 1969

Compiled by Andrew Huxtable and Peter Matthews

1510 METRES T MILE

1500 METRES.1 MILE

1. Rim Riddey (4.1) 46-Jent 4 15.9, 448.2, 4/20.2, 4/20.3, 4/20.5, 18. Henden, 18. Southern, 4th Lescenter, 2nd v. Czecho, 2nd WAAA, 2nd v. USA, 18. v. France, 7th 14. 18. v. W. Ger Z. Helwan, Bateman 128.12.469, 4/20.8, 4/20.4, 4/40.19, 4/30.2, 4/30.2 for Henden, 2nd Lescenter, 3nd v. Czecho, 16d WAAA, 4th v. USA, 2nd v. France, 10d v. France inv. 8th EC Rt. 4th v. W. Ger, Z. Jans Perry, 1/3-4/20.2 for Lescenter, 18. Northern 14C, 10d Webspin, 6th Uccester, 18. Northern 14C, 10d Webspin, 6th WAAA, 2nd v. France inv. 2nd v. Rum 3, Marie Hernot (16. 3/40/4th, 4/20.1, 4/20.4, 4/20.2), 4/10.4, 4/20.1, 4/20.4, 4/20.2, 4/20.4, 4/20.2, 4/20.4, 4/20.1, 4/20.4, 4/20.2, 4/20.4, 4/20.2, 4/20.4, 4/20.2, 4/20.4, 4/20.2, 4/20.4, 4/20.2, 4/20.4, 4/20.2, 4/20.4, 4/20.2, 4/20.4, 4/20.2, 4/20.4, 4/20.2, 4/20.2, 4/20.2, 4/20.4, 4/20.2, 4/20

Winger-Park

and 22 (9) 7, G C

(bork (Send) 22 34

(chern) 12 348 12 D. Chorche

(chern) 12 348

GOSNEY TROPHY
As South-contest, January 24th
L. C. Savari (Brancher Suth).
35 36
3 G. Stevari (Brancher Suth).
35 36
4 Fr. (Bith) 25 48; 5. Harrison (Ald) 50; 6. Clare (BN) 15-38; 5. Harrison (Ald) 50; 6. Clare (BN) 16-30; 7. M. Dott (Read) 35-38; 8. M. Wasellord (Stem) 36-35; 9. Basha (Ald) 57-18; 10; S. Balyati (Stem) 51-24; 12; M. Wasellord (Stem) 51-24; 12; M. Wasellord (Stem) 57-24; 12; M. Wasellord (Stem) 57-24; 12; M. Wasellord (Stem) 57-24; 13; M. Davis (Ald) 37-36; 14; 14; 16; 16; 16; 16; 16; 16; 16; 16; 17; 18; 17; M. Curthens (Sala 38-36; 18; L. Wangnow (Read) 81-14; 19; D. Inni (Perts) 822; 20; D. Cursell (Ald) 36-25; Teasure 1, Aldenber & Farnham 74; 2, Rendon 114; 3, Bourn mouth 116; 6. Southampton 123; 5. Saladony 176; 6. Landeigh 268.

ESSEX WOMEN'S CROSS COUNTRY
CHAMPTONSHIPS
At Great Wakering, December 13th
1. 8. Redby (Essex Ladies) 1945
2. 8. Genesey (Lhurnock) 21.02
3. 1. Morton (Brasicon) 21.05
3. 1. Redby (Lhurnock) 3. 1. Redby (L

D. Matter (Eclibana. 12.13)
2. G. Sele (Southgase) 12.25
3. N. Sounders (Conthigate) 12.25
3. N. Sounders (Conthigate) 12.35
4. S. Barr (Thornock) 12.39; 5. G. Galvin (Hellingdorn) 12.57; 6. J. Barraelough (Seatte) 12.57; 7. R. Selbersott (Seatte) 13.25; 3. R. Brown (Shafti 13.29; 9. W. Taylor (Tom Hood HS) 17.35; 10. P. Barmannd (C. & C.) 13.52; 11. D. Sales (Thornock) 13.39; 12. A. Thornoch (Shafti 13.19; 13. R. Adlems (Seatte) 13.42; 14. J. Keeble (Helli 13.44; 15. K. Nage (Thurnock) 13.54; 16. A. Bours (C. & C.) 17.5c; 17. V. Voller (Shafti, 14.12; 18. N. Taypong (Halli) 14.15; 19. P. Welsh (So. AC.) 14.25; 23; 1. K. Kalby (Seatte) 14.23. Bearns: 1. Southgase (F); 2. Pharrock, 38; 3. Shaftesbury 37; 4. Hullingdon 15; 5. Cambridge & C. Slevidge 47; 6. Southgase (S); 7. Tom Hood HS 68; 8. Source AC 78; 9. Feltham 20; 10. Lora Hood HS 68; 8. Source AC 78; 9.

At Chigwell, January

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DAVE

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12.5

CUL

AVLOR

North of the Thames C.C.

BOOK LIST

THE PHYSIOLOGY OF EXERCISE by Professor Herbert A. De Vries published by Staples Press, London. Price 63s. Reviewed in this issue by Roger Bannister, a must for the enquiring coach sitting the Sentor A.A.A. examination.

TRACK ATHLETICS by Messrs Bill Marlow and Denis Watts published by Pelham Books. Price 30s. Reviewed in this Issue by Frank Horwill, a necessity for the aspiring middle-distance runner wanting to know how much distance and track work he should do. A wonderful chapter on the steeplechase.

MODERN DISTANCE RUNNING by Tony Ward published by Stanley Paul.
Price 21s. Another must for the aspiring Senior A.A.A. coach,
written with humour and a flair seldom found in works of this
sort he gathers together information from the world's great coaches
and runners to provide a comprehensive analytical work.

RUN RUN RUN by Fred Witt published by Track and Field News.
Price 22/0d. This is the bible of middle-distance running. Socalled revelations in training made by certain flamboyant British physiologists can be traced from this book.

THE MECHANICS OF ATHLETICS by Geoff Dyson published by University of London Press. Price 30/-. The aspiring Senior A.A.A. coach in any event should have this book on his shelf for reference.

MODERN TRAINING FOR RUNNING by 1. Kenneth Ocherty Is one of the truly great works on coaching. Price 59/6d. Published by Prentice Hall.

RUN TO THE TOP by Arthur Lydiard published by Herbert Jenkins.

Price 21s. The writer has coached two gold medallists and a bronze medallist. His views must be read with an open mind. We teel that his basic plan of a slow build up of mileage to 100 miles a week for ten weeks is sound physiologically. However, the sudden switch to six weeks of fartick type of repetition hill running has caused many injuries. His track sessions do not hold water today when viewed from the physiologist, although we are glad to see that his milers still do a 20 mile slow run once a week.

THE FIRST FOUR MINUTES by Roger Bannister published by Putnam. Price 15s. This book has the mark of Franz Stampfi's methods. There is still much to be learnt from this book. The progressive may Bannister started doing 10 x 400 metres a week in October and reducing the times from 66secs. per month to 59secs. by May of the next year is worthy of note. Also, his love of doing a fast \$\frac{\pi}{2}\$ mile each week and his still world record of \$2mins.51.9 secs. for that distance command respect.

ATHLETICS - HOW TO BECOME A CHAMPION by Percy Wells Cerutty published by Stanley Paul. Price 21s. The author coached the greatest miler of all time, never beaten in a mile race in his life, it is unlikely that we will see a miler of his stature again. Percy practised what he preached, he trained hard himself, and he viewed athletics as the training ground for a man's character and future in life. Behind his loguaciousness there is a lot to be noted.

MEDICAL ASPECTS OF SPORT AND PHYSICAL FITNESS by J.G.P.WIIIIams published by Pergamon Press. Price 15s. A book every coach should have in his collection. Deals with many problems in very simple language.

CIRCUIT TRAINING by Messrs R.E. Morgan and G.T. Adamson published by G.Beil and Sons. Ltd., price 1026d. If every athlete followed the circuits set out in this book three times a week during the winter they would not want for fitness.

BOOK REVIEWS

TRACK ATHLETICS by Messrs Bill Mariow and Denis Watts published by Pelham Books. Price 30/-.

Naturally, I turned to Chapter One and Chapter Five in the first Instance. The book is worth its money for these two passages alone. All the swankers who love to stand in the middle of a room or track explaining style are cut down to size in Chapter One. In Chapter Five the old school of middle-distance coaches are in for a shock. They are told precisely what the physiological requirements are for the 800 metres to the 10,000 metres and exactly how to get them. The words aerobic, anaerobic, oxygen debt, litres of consumptionand the graph explaining these words, better be learnt quickly if the athlete and coach are to progress. The chapter on weight training explains a rather unique way of doing concentric work, specific sessions and eccentric litts. If you are anxious to coach or run steeplechase, the chapter on this IS THE GREATEST OF ITS KIND IN WORLD ATHLETICS LITERATURE.

One small criticism, I searched in vain for a picture of athletes leaving the blocks in the chapter on sprinting.

All in all this book packs a punch in every sentence.

Reviewed by Staff Coach Frank Horwill

oQo.		
06.10		
	Object	

THE PHYSIOLOGY OF EXERCISE FOR PHYSICAL EDUCATION AND ATHLETICS by Professor Herbert A.de Vries, Ph.D. Staples Press, 63/-.

This is a book which any athlete, particularly a middle distance runner, could read with interest and profit. The science of sport is now a complex synthesis of physiology, blochemistry, apsychology and sociology but a knowledge of physiology remains its hard core. Professor de Vries is an expert with the experience of practical issues which is necessary to make physiology easily understood by athletes.

The modern athlete and coach need to know what are the limiting factors in athletic training, what is the real meaning of such commonly used words as "second wind," stitch" and "fatigue", what are the signs of "untitness" and what are the symptoms of "steieness", what is the difference between isometric and isotonic exercise. These questions and innumerable others are answered as clearly as present knowledge allows in Professor de Vries's book.

Any criticisms I have are quite minor. From the neurological point of view the "cross" effect of training one limb might have other explanations than the presence of some ipsilateral pyramidal fibres. There is the work of Sinciair who by experimental studies provides further evidence that "stitch" is due to ischaemia of the diaphragmatic muscle. The book was written before the Mexico Olympics had opened the Pandora's Box which has taught us more about hypoxia as a limiting factor in performance. Will "sea level" athletes want to train at altitude in order to improve their "sea level" performances? Professor de Vries is up to date in his appreisal of the probable harmful effects of anabolic steroids with the risk of liver damage and I agree with his assessment that the scientific, as well as the moral evidence, is against the use of drugs with the object of improving performance.

Any athlete who studies this book should feel better able to prepare his own training schedule, and advise other athletes about theirs. Can one say more.

Reviewed by Roger Bannister, C.B.E.

~O~	

OLYMPIC PROSPECT

JOHN BOGGIS Name In full:

Birthplace and date: LEICESTER 15th February 1951.
Height and weight: 6FT. TINCH 147LBS.
Clubs: 8.M.C. AND BIRCHFIELD HARRIERS.
Occupation: PRODUCTION ASSISTANT - PRINTING.

When did you take up running seriously: 1905.

Coach: NONE

Personal bests year by year:-1965 1966 1967 1968 59.8 55.5

880 2.10 2.2.2 2.1.3 1.57

4.26 4.23.8 4.13.9 4.06(Eq.) MILE 5.18

2 M 10.14 9.23 9.11 9.4.0 8.56(Eq.)

14.57 14.10.6 14.6 13.51.6

3.58.7 3.48.7 4.7.0 1500

3000 8.26.8 8.16.8

5000 14.48 14.17.8

30.28.4(Aned 15)

Best competitive achievements and placings:

1964-65 CROSS-COUNTRY - 1st LEIGS, SCHOOL CHAMPS, JNR, BOYS 3rd ENGLISH SCHOOLS CROSS-COUNTRY JNR, BOYS,

TRACK - Ist COUNTY SCHOOLS IML JUNIOR BOYS 4,54.1 6TH ENGLISH SCHOOLS IML JNR. BOYS 4,41.8

CROSS-COUNTRY - IST LEICS A.A.A. BOYS CHAMPS. 1965-66

> TRACK - 1st LEICS CITY SCHOOLS INTER, CHAMPS 4,34.4
> 1st LEIC A.A.A. IML CHAMPS (YOUTH) 4,38.4 Also ren
> 2MLS in 9,93 U.K. BEST FOR IS YEAR OLD, GMLS in 30,
> 28.4 WORLD BEST FOR IS YEAR OLD AND PASSED 3MLS IN
> 14.57 U.K. BEST BY IS YEAR OLD. GMLS in 30.

CROSS-COUNTRY: - Ist COUNTY A.A.A. BOYS CHAMPS. 1966-67 Suffered fallen arch through running in wrong shoes on road training.

> TRACK - RAN 4.24.5 IN MAY. MOTOR CYCLE CRASH IN JUNE. RAN ENGLISH SCHOOLS ON 2 WEEKS TRAINING FINISHED 6TH INTER BOYS MILE IN 4.31.8. RAN 9.11 FOR 2MLS U.K. BEST FOR 16Y.O. RAN 3MLS IN 14.13 U.K. BEST FOR 16YO. RAN 9.11

CROSS-COUNTRY- 1st COUNTY YOUTHS A.A.A. CHAMPS. IN 1967-68 JANUARY RAN 14.10.0 FOR 3MIS. U.K. SEST 16Y.C.

> TRACK - 1st ONE MILE COUNTY JNR. CHAMPS 4,18,9
> 1st-9M15 COUNTY JNR. CHAMPS 9,18.1. 1st M.C.A.A.A.
> JNR. CHAMPS 9,7,4. 2nd ENGLISH SCHOOLS SNR. BOYS
> 3M15 14.16. ALSO RAN 3,000M IN 8,26,8 U.K. BEST. FOR 17Y.O.

1968-69 CROSS-COUNTRY - No competition.

1968-1969 TRACK- 1st Nar. INDOOR CHAMPS. JNR. 3,000 8.27.6
ALSO RAN 8.22.8 U.K. BEST FOR 17 Y.O. 2nd SNR.
1,500 COUNTY CHAMPS. 3.51.9 1st JNR. COUNTY
CHAMPS. 3.59. 1st. JNR. M.C.A.A.A. CHAMPS 3.56.0.
1st M.C.A.A. JNR. CHAMPS. 3,000 M 8.18.6. 1st
4 x 880 SNR. PELAY CHAMPS. 1st G.B. v FRANCE JNR.
3,000 8.16.8. 1st NATIONAL 3,000 JNR. 8.17.4.
4TH NATIONAL 1,500 JNR. 3.48.7. ALSO RAN 14.17.8
5.000 A.A.A. UNDER 19 BEST158.2 LAST LAP1.

Please jescribe in some detail your winter training and give some indications how it has propressed over the last three years and the ultimate target:-

WEIGHTS * CROSS COUNTRY RUNNING * ROAD RUNNING * HILL RUNNING* DID WEIGHTS FOR A SMALL PROPORTION OF WINTER PERIOD BUT DO NOT THINK THEY WERE VERY BENEFICIAL. HAVE NO TARGET AS FAR AS WINTER TRAINING IS CONCERNED.

Please describe your summer training and outline how it has developed over the last three years.:-

UP TO THE AGE OF 17 I NEVER DID REPS. OVER 440. HAVE NOW PROGRESSED TO REPS. \$ MLS.

Please give details of any other training other than running:-

NONE.

What is your attitude towards training?

TRAINING IS A MEANS TO AN END.

What is your usual training venue?

3 DAYS ROAD - 3 DAYS TRACK(2 DAYS ON TARTAN).

tow Important to you Is athletic success?

I HAVE NEVER REALLY GIVEN THIS MUCH THOUGHT.

Please describe your limber up?

1 MILES JOG INTERRUPTED BY EXERCISES.

What importance do you attach to "mental" training and how do you go about improving your mental approach(If at all)?

I MENTALLY BUILD UP THREE DAYS BEFORE A RACE, CONCENTRATING ON WHAT I HAVE TO DO IN THE RACE.

Describe any serious lilinesses or physical setbacks you have had and ray how they have affected your progress and attitude.

HAD FALLEN ARCH TRAINING FOR C.C. THIS PUT ME OFF C.C. AS A FORM OF SERIOUS RACING. MOTOR CYCLE ACCIDENT. CAUGHT MAD FLU IN DECEMBER 1968 WHICH LEFT ME WITH BRONCHITIS WHICH DID NOT CLEAR UP UNTIL JUNE. I COUNT THESE AS SETBACKS WHICH HAPPEN TO ALL ATHLETES.

How interested are vour parents in a) athletics b) your athletic progress?

VERY INTERESTED. MY FATHER IS A QUALIFIED OFFICIAL. MY PARENTS
MAKE EVERY POSSIBLE SACRIFICE SO THAT I CAN REACH MY FULL POTENTIAL,
MOST OF MY FRIENDS ARE ATHLETES. ONE FRIEND CYCLES WHILE I RUN ONCE
A WEEK. I NOW KNOW WHAT TRAINING SUITS ME, I NEED A COACH FOR PLANNING
MY RACE PROGRAMME.

PRITISH KILESS CLUB ACRILLES TEVDON QUESTICITAIRE

(BLOCK LEPTERS THROTOROUS, FLEASE)

KANE:
ADDRESS:
PHOSE NO:
CLEB:
EVENT (MILTE, &c.)
OCCUPATION:
ACE: ACE when injury first occurred:
Was injury professionally diagnosed?
Was injury done in a race? If so give details:
Was injury done in training? If so, give details of training:
If done in training, how did the type of work differ to that done six weeks before?
Date and time of injury?
Conditions at time of injury (Weather, type of track and state)
Describe limbering up before injury:
State in detail type of shoe worm at time of injury:
Give details of health at time of injury: (Cold, incommis, enctionally upset, &c.)
Describe in detail nature of injury: (sudden or chronically worsening)
Give full details of first aid given in acute injury and self-treatment in chronic case
Give details of any professional treatment and its effect:
Were you taking vitamin supplements at time of injury?
Would you say injury occurred at a time when a "breakthrough" was indicated in your performance?
Precise position of injury: If possible draw diagram.
Give details of running rehabilitation:

Return completed form to: ACHILLES, 1037B Finchley Road, London, N.W.11.

ACHILLES TENDON'S

es.

At the Middle Distance Conference of Octobe 1968, organised by the S.C.A.A.A. through the auspices of the B.M.C. Chairman, Staff Coach Harry Wilson, It was stated that a comprehensive study should be made of the Injury STRAINED ACHILLES TENDON. The British Milers' Club undertook this task and advertised for sufferers to complete our questionnaire, a specimen of which is on the next page. The findings were fed to a computer and numerous authorities on athletics and the injuries sustained from its pursuance were asked to state their expert opinions.

ANALYSIS OF ANSWERS TO B.M.C. ACHILLES TENDON QUESTIONNAIRE Type of athlete answering questions: ROAD RUNNERS 60% TRACK MEN 40% Number of completed forms received:- THIRTY FOUR Number of cases professionally diagnosed:-TWENTY FOUR. Average age of sufferers:- TWENTY. Percentage of Injuries done in racing:- THIRTY TWO PER CENT. Most prevalent type of race where injury occurred: - CROSS COUNTRY THIRTY THREE PER CENT; ROAD RUNNING FORTY ONE PER CENT; TRACK RACING TWENTY FIVE PER CENT; INDOOR RUNNING ONE PER CENT. Most prevalent type of surface being tackled when injury occurred:-CROSS-COUNTRY...Running up a steep hill. ROAD RACING ... Running down a steep hill. TRACK RACING... Ash track during first third of race.
Percentage of injuries done in training: SIXTY EIGHT PER CENT.
Time of year, type of training, weather conditions prevailing at time of MARCH 25%; REPETITION RUNNING FAST 64%; ROAD RUNNING 26%; OTHER TYPES 10%; WEATHER MAINLY WINDY AND COLD.

MAY 25%; REPETITION RUNNING FAST 90%; ROAD RUNNING 10%; WARM WEATHER.

OCTOBER 13%; FARTLEK 33% ROAD RUNNING 33% TRACK 33% WET WEATHER 66%

NOVEMBER 20%; ROAD RUNNING 80% FARTLEK 15% TRACK 5%. COLD WEATHER. Injury during training:-JANUARY 17%; ROAD RUNNING 100% IANUARY 17%; ROAD RUNNING 100% COLD AND SNOW.

Type of limbering up done by all subjects:NO LIMBERING UP AT ALL 30% ALL ROAD RUNNING.

JOGGING ONLY 52% AVERAGE DISTANCE TWO MILES.

JOGGING, STRIDING AND EXERCISES 9%.

Type of shoe worn at time of injury:- SPIKES 45%; ROAD RUNNING SHOES
NO HEELS 50%; ROAD RUNNING SHOES WITH HEELS 2%; BOOTSO.5%; TENNIS
SHOES 2%; NOTHING AT ALL 0.5%. TRACK SPIKES MENTIONED:-ADDIDAS 40%;
PUMA 9%; LAWRENCE 9%; MAKE NOT MENTIONED 42%, ROAD RUNNING SHOES
MENTIONED:- ADDIDAS 29%; TIGER 25%; LAWRENCE 5%; NO MAKE STATED 41%.

Details of boolths at time of injury:-COLD AND SNOW. Details of health at time of injury:-GOOD HEALTH 615; EMOTIONALLY UPSET: 95; SLIGHT DISORDERS 95; OTHER INJURIES 13%; UNCERTAIN 8%. First aid given in acute condition:- NONE 43%; COLD WATER 57%. Self-treatment in chronic condition: -NONE 16%; MASSAGE ONLY 20%; HOT AND COLD WATER APPLICATIONS ONLY 20%; REST ONLY 11%; HEAT LAMP 23%. Professional treatment given with success:- 30% COMPLETE CURE; NOT CURED 68%; SELF-CURED 2%.

Successful cures listed:- CORTISONE INJECTION 20% SUCCESS OF TOTAL CURES(30%) OR ONE-FIFTH OF PROVEN CURES; SURGICAL OPERATION WHERE TENDON WAS FRACTURED 20% OF TOTAL CURES; STRAPPING COMBINED WITH SPLINTS 20% OF TOTAL CURES; REMEDIAL EXERCISES 20% OF TOTAL CURES: HEEL PADS INSIDE SHOE 10%; ULTRASONICS 10%.

Precise location of injury: IMMEDIATELY BEHIND ANKLE BONE 60%; WELL BELOW ANKLE BONE 25%; WELL ABOVE ANKLE BONE 15%.

Method of refiabilitation:- TIME LOST ON AVERAGE WAS 5 WEEKS. TIME TO RETURN TO FULL TRAINING WAS 11 WEEKS ON AVERAGE. DISTANCES ON AVERAGE RANGED FROM A MILE DAY JOGGING INCREASING BY A MILE A DAY PER WEEK. OVER HALF OF CURED ATHLETES FAVOURED SCHOLL'S HEEL PADS IN THE CURED 68%; SELF-CURED 2%. WEEK. OVER HALF OF CURED ATHLETES FAVOURED SCHOLL'S HEEL PADS IN THEIR REHABILITATION AND OTHER FORMS OF HEEL PROTECTION.
Athletic training indications at time of injury:- A MAJOR B
WAS INDICATED IN 66% OF SUFFERERS, MOST WERE ON THE BRINK OF A MAJOR BREAKTHROUGH CHAMPIONSHIP CLASS. Vitamin supplements taken at time of injury: YES 20%; NO 80%.

ACHILLES TENDON - OPINIONS OF THE EXPERTS

DR.JAMES CYRIAX, formerly Head of Physical Medicine Dept., St. Thomas Hospital, Westminster, states:-

In my view the condition is always caused by repeated overstrain rather than one particular accident and the athlete experiences increasing discomfort after he has at first run a long distance and then a short distance. Finally he cannot run at all. Examination shows that the commonest site for the trouble is mid-tendon, not on the posterior aspect but at the sides and very often the front of the tendon. Less often the lesion lies at the musculo-tendinous junction or at the insertion at the calcaneus. When the lesion lies at the two lower points just mentioned, TRANSVERSE FRICTION AND HYDROCORTISONE ARE BOTH EFFECTIVE TREATMENTS, WHEREAS WHEN THE LESION LIES AT THE MUSCULO-TENDINOUS JUNCTION HIGHER UP, TRANSVERSE FRICTION IS THE ONLY WAY TO GET RIO OF THE SYMPTOMS. Naturally enough since the lesion is caused by overuse the patient should avoid straining the tendon until he is well. Whether crepitus is present or not makes no difference.

DR. DAVID RYDE, Medical Officer to the British Milers! Club, states:-

I suspect that achilles tendonitis is either several separate entities or one entity with a wide spectrum of pathology. I've seen them heal rapidly and slowly, have felt them swellen and creaking, or no swelling and no creaking(crepitis). It is difficult to correlate treatment and response though possibly temporary relief may be obtained sometimes with hydrocortisone injections, though it is said that ruptured tendon can occur after REPEATED INJECTIONS. I also have had a long history of achilles tendon trouble and found a variety of therapies ineffective. Recurrences are now mild, but as always I just accept them and get along as best I can. Oddiv enough It never troubles me playing squash and this I do 3-4 times a week for an hour a time, and at a fairly tast and good level. I NOTE THAT MESSES. ELDER AND PORTER HAVE MADE SENSIBLE OBJECTIVE OBSERVATIONS(see later). My experience as an M.O. to the Sherwood Foresters 1954-5, leads me to believe that healing is MCRE RAPID WHEN THE TENDON IS SWOLLEN AND CREPITUS IS ELICITED AROUND IT. In my mind I have crudely divided this condition into WET and DRY types and the WET type has a shorter natural history. This could possibly account for inconsistency in effect of therapies, i.e. the quicker healing type causes credit to be given for the treatment in use at the time. I've never seen any classification before in achilles tendon trouble. I WOULD SUSPECT IT TO BE COMMONEST EARLY IN THE SEASON, ON HARD TRACKS, AND WHEN UNUSED TO SPIKES, I.E. BEING FORCED ONTO THE TOES, BUT THIS IS DIFFICULT TO PROVE. SOMETIMES I ADVISE PEOPLE TO SWIM, CYCLE, LIFT WEIGHTS AND PLAY SQUASH AS A MEANS OF KEEPING FIT UNTIL FASTER RUNNING IS TOLERABLE.

MICHAEL F. PORTER, D.O., M.R.O., REGISTERED OSTEOPATH, states:-

As a practitioner(I have suffered with achilles trouble road racing), I have found the condition apparently non-responsive to any form of treatment although I have thought that infiltration with procaine followed by activity might do the trick. In this connection it is not what we do that is curative, but the way the body reacts to the procedure. I think there is more to this than mere local anaesthesia. which would of course reduce the inflammatory reaction by blocking vasomotor mechanisms. There is also the concept of the reaction to the Injury, rather than assisting recovery, acting itself as a noxious agent, i.e. itself being the stimulous for further inflammatory response, thus establishing a victous circle. I would say that the disability is not necessarily due to the injury itself but the reaction the body makes to same. After all, the reaction tends to be "all or none", being basically the same whether responding to the presence of infective agents (where it is beneficial) or to a minor ligamentous tear, where it is excessive and of doubtful value. Anyway, man, with a more highly developed nervous system(an athlete even more so?) probably reacts

MICHAEL F. PORTER ... Continued

excessively to injury. He is also intellectually aware of the injury, which goesn't help.

BEWARE OF THE "EXPERT" particularly if he is armed with heat lamps, etc., (surely contra-indicated) and claims to "treat" a "condition" empirically. One is in fact treating an individual, his injury is peculiar to him.

I remember HAROLD LEE, an orthopaedic surgeon and himself a road runner, writing on the subject in the RCAD RUNNERS' NEWSLETTER. As an athlete himself, he was far from dogmatic, he merely advised "carry on running and if in doubt take the advice of an experienced athlete"!!! In other words, often those who don't do, either teach or treat!

Obviously there are predisposing factors in this type of injury whether intrinsic in the athlete himself, mechanical assymmetry or imbalance leading to uneven distribution or extrinsic, in the form of persistent activity on tracks(always anti-clockwise) or roads, talways on the same side, irrespective of the camber). In either event, an element of "sheer" is transmitted to the Achilles Tendon and in fact, tenderness is often more prevalent on the medial aspect. Another factor here may be the tendency of the longitudinal arch of the foot to collapse with the onset of fatigue in the inadequately trained athlete doing high intensity work. It is interesting to note that the conditions are much less prevalent in road-runners who include much more work of low intensity in training. I wouldn't say they never train fast but have something to build on.

There appears to me to be a distinct difference in the achilles tendons of distance runners as opposed to sprinters whose massive calf muscles are often inserted into tendons of little width. A distance runner with slim calves usually has quite a broad, tough Achilles Tendon, which makes me wonder whether in fact the molecular structure is reorganised in the early stages. If this happens too quickly the pain, swelling and tenderness of the tendinitis results.

After 13 years competition and only one real injury, after the kondon-Brighton race on about 30 miles training a week, I gave up training and tacing 10 years ago, starting again exectly 2 years ago. I was doing a mere 10 miles a week but racing most weeks and developed an acute Achilles Tendinitis which made it very difficult to carry on. Incidentally, the condition was much less painful during a race than in training. The condition went on for some three months and I temember hobbling to the start of the East Lancs C.C. Champs. During the race I felt little pain although the course was hilly and rough. The same evening I was just about capable of making the local for a pint. Ten days later after several short, slow runs the condition was much improved and disappeared after one month to be superseded by pain at the top of the same thigh which persisted for about 2 months. This eventually cleared and I have had no further injury 18 months later. I am averaging 20 miles a week now and racing every week. It is pretty obvious to me that one can only absorb so much training initially. I was attempting to train with the same intensity as heretofore. Training has much more far-reaching effects than we think until we have a long lay-off.

W.SHILLIBEER, M.C.P.S., Physiotherapist to the British Olympic Association, states:Thank you for sending the questionnaire forms on achilles tendon trauma. Certain things emerge with clarity:- 1) The necessity of heel padding.
2) The avoidance of hard ground. 3) The avoidance of slopes or uneven terrain. 4) Rest or lessened running when the condition occurs. 5) The use of short wave or ultrasound. We ourselves resort in nearly every case to frictions, a specialist type of massage to the actual tendon, we always advocate self help at home by way of

ACHILLES TENDON - OPINIONS OF THE EXPERTS

W.Shillibeer, M.C.P.S. Continued ...

contrast baths, frictions and ice cube massage. Or, Curwen injects cortisone in most SUITABLE cases, usually this relieves for varying periods and sometimes is a cure. When successful, this latter is always the quickest.

One type of calf-tendon-under the heel elastoplast strapping that was advocated in the answers to the questionnaire, we are going to experiment with, as the principles seem to meet the needs of some achilles tendon sufferers.

STAFF COACH HARRY WILSON, S.C.A.A.A., FORMER WELSH INTERNATIONAL FROM 400 METRES TO THE MARATHON, MAKER OF FIVE CLYMPIC ATHLETES AND ONE EUROPEAN JUNIOR MILE RECORD HOLDER AS WELL AS NUMEROUS COUNTY MALE AND FEMALE CHAMPIONS, States :-

The absence of external heels in running shoes causes greater stretching of the tendon than in ordinary tootwear. The idea that this is made up for by the spikes sinking in is not true, since many tracks are so hard and many cross-country races are run on frozen ground, the spikes do not penetrate. I believe that all running shoe manufacturers do not penetrate. I believe that all running shoe manufacturer MUST BE INFORMED OF THE NECESSITY OF FIXING HEELS ON ALL RUNNING SHOES.

A.G. ELDER, SENIOR A.A.A. COACH, CONSULTANT COACH TO THE W.A.A.A.
OLYMPIC COURSES, COACH TO THE U.K. 1,500 METRES LADIES RECORD HOLDER,
MAKER OF NUMEROUS INTERNATIONAL AND COUNTY RUNNERS, States:-

1) Trouble came on during training/racing?

Training - a more frequent cause than racing. But: several don't ke exactly when injury was sustained. Can occur in racing and only be But: several don't know felt in training and vice versa.

2) What behaviour seems to bring on this injury?

Very many causes, but the following seem important to me:-

[al

Over long runs - both in training and racing on roads, Suddenly having to run uphill, after running on flat surface, Suddenly having to run downhill... (6)

(c)

Sprinting too suddenly early in season.

Sprints on wet sand or other unsuitable surface. (e)

Cold weather - producing stiffness in ankles. 643

Lack of adequate warm up. Igl

And of course in many cases, combination of the above: e.g.no warm up, cold day, long road run at one pace producing stiffness, soreness, then achilles strain.

THE MOST COMMON

31 Treatment?

tol Algipan (a) Operation (p) lodex 161 Strapping Cortisone injections (c) Vaseline tel

111 Tablets from doctor (d) Massage [5] Running on grass tel Ultresenics Running on Frack(1) 1 + 1

143 Short wave treatment 191 Jeggina

(h) Steady running

(11 Hot and cold water alternately

Build up heel of shoes 111

141 Foom rubber in heel*

(1) Resta

[m] Weights to strengthen

tn) Exercises/Physiotherapy ACHILLES TENDON - OPINIONS OF THE EXPERTS

A.C. ELDER, Continued.,

Are we dealing with one injury? I doubt it. Soreness - acut-in Achilles area could be one of several conditions. Therefore Soreness - acute pain -Are we dealing with one injury? different treatment for different injury? N.B. Some have NOT been cured by the various treatments they have had.

CONCLUSION: -

(a) It is extremely painful

(b) Problem for the treatment is that it seems to me that rest only sometimes cures - Lit doesn't hurt so much because you are not running), but the condition can still remain. Athletes don't went to rest anyway.

The problem is less agute if the condition is cought early and (c)

not allowed to become severe.

This is an all-too common condition - achilles pain.

FRANK HORWILL, STAFF COACH S.C.A.A.A. (Youths and Juniors), MAKER OF TWO U.K. INDOOR MIDDLE-DISTANCE RECORD HOLDERS AND NUMEROUS BRITISH ISLES NATIONAL CHAMPIONS, States:-CAUSES: -

 The old English practice of doing one type of training for six months and then switching abruptly to another type for the next six months. Middle-distance men should do comparitive speed work in the winter and road-running in the summer. Their training should be BASICALLY THE SAME ALL THE YEAR ROUND WITH A SLIGHT SHIFT IN EMPHASIS. It seems to me to be absolute folly to allow the musclature for fast running and road running to go into stagnation for several months and then expect them to react suddenly to work which is foreign to them.

2. The old English practice of racing one's guts out each week over cross-country with all its uneven surfaces, hidden tree roots, trozen surfaces, etc., for the honour of a club which will drop the athlete like a hot brick if he runs into bad form. I am at a loss to know why cross-country is so important to athletics, there are no gold medals in the Olympics for cross-country running, nor any in the European and Commonwealth Games. More time spent running indoors at a FASTER than race pace over shorter distances would suit our plans to capture world milling honours. If you must race cross-country, run in the club championships, county, regional and National only. Above all, do not allow your school to race you TWICE a week as some try. It has been shown quite clearly that LACK OF CALCIUM 3. Faulty diet. In youths and juniors is a serious cause of injury to bones and muscle tissue. All THE USEFUL INGREDIENTS WE EAT PASS INTO THE BLOODSTREAM AND "DROP OFF" AT THEIR VARIOUS DESTINATIONS, i.e. calcium for muscle and bone; iron for blood; vitamin A for the eyes,etc. Eat plenty of hard cheese each day and take at least one glass of milk a day. Over stressing the athlete when in peak condition and Ignoring Professor Selve's stress symptom syndrome and the diet recommendations he lists, i.e. THE FITTER YOU GET ATHLETICALLY THE GREATER THE RISK he lists, i.e. OF BODILY BREAKDOWN IN OTHER DIRECTIONS, e.g. strained Achilles. As you become fifter INCREASE VITAMIN C INTAKEL and Infection) and VITAMIN Binervous energy foodl. Also IRON. 5. Stepping up training progression on the track too soon. Expe shows it takes 4-6 weeks before a "system" of training is absorbed and it can be "oughened. Experience

Not wearing heel pads when road running, not sticking on half-Inch heels to All running shoes without heels. We spend ninety per cent of our time walking around in shoes with heels, why suddenly do without them when using running shoes? WE PULL CUR MUSCLES DOWN.

TREATMENT: -

(a) If the condition is caused suddenly, i.e. brings the athlete to a standstill when running. Place the area in ice cold water or pack the area with ice for THIRTY MINUTES, thus stopping any internal bleeding which will later cause lesions.

MILK ...

unquestionably the most important single article of diet there is

FRANK HORWILL, Continued ...

(b) GET EXPERT TREATMENT QUICKLY. YOUR DOCTOR IS VERY UNLIKELY TO BE AN EXPERT, SEE HIM FIRST FOR A LETTER TO THE PHYSICAL MEDICINE DEPARTMENT OF YOUR LOCAL HOSPITAL. INSIST ON THIS.

(c) IF YOU ARE FORTUNATE ENCUGH TO LIVE IN THE LONDON AREA RING KELVIN 7722 AND ASK FOR THE ATHLETES' CLINICIMT. Shillibeer).

(d) Relieve soreness by standing facing a wall arms length away, fall forward bending the arms until the face touches the wall, you will stretch the tendon. N.B. See Professor De Vries chapter on STATIC WARM UP EXERCISES before training.

NATURE CURE REMEDIES

(a) Obtain ARNICA tablets from a homoeopathic chemist.

(b) Expose area to sunlight for increasing periods each day.

(c) Hydrotherapy(Batherarea In freezing water for two minutes and then as hot as possible for same time, keep this up for fifteen minutes morning and night, more often if possible.

KEEPING FIT WHILE RESTING

(a) Do violent sprint arm action with arms well forward and backwards for 30 seconds. Rest same period of time and repeat ten times. You will quickly register an oxygen debt similar to that of running 200s with short rest.

oCo____

CLIFF BOULD M.C.S.P. In his book HINTS ON ATHLETIC INJURIES

STRAPPING OF ACHILLES TENDON

Bandage from bases of toes up to and including the lower third of the calf with a cotton bandage. Then take a strip of elastopiest four inches wide and take it from the bases of the toes on the planter surface of the foot to the back of the heel bone continuing up to where the cotton bandage ends. Then strap from the bases of toes with a figure of eight around the ankle to the top of the cotton bandage.

INFLAMMATION OF ACHILLES TENDON

When this condition is treated promptly and appropriately in the early stages it clears up quickly. Unfortunately athletes will try to "run it off"; rarely do they present themselves for treatment before a few weeks have elapsed.

TREATMENT

Short wave disthermy, ultrasonics, anodal galvanism followed by faradism, renotin ionizations, ultra violet rays given with the Kromaver lamp, and strapping all have this uses. Choice of treatment depends on the state of the Ifmb. If swelling is present and the tendon very painful anodal galvanism for 45 minutes to an hour in a leg bath is used. This is followed by surged faradism with one electrode and pad on the heel and the other on the calf. Massage is given to all the calf muscles beginning at the ankle and finishing at the back of the knee. Strap the Ifmb. If on the first visit the athlete has localised pain BUT NO SWELLING, short wave disthermy four times a day followed by trictions, is the treatment of choice. Ultrasonies should be used after disthermy if it is available.

Strap the limb and request the athlete NOT TO KUN for several days. If an athlete can only attend for treatment once a week, frictions followed by a third-degree dose of ultra-violet rays will be useful. If attendance is impossible the surgeon could give cortizone injection followed by ultrasonics.

e0e____

GUOTE: After years of suffering with achilles, I went to Scholls footwear experts. They X-Rayed me and gave me an arch support(Editor's Note: See M.F. Porter's comments). This cured me. GEORGE GANDY, Administrator, N.C.A.A.A.

JIM DOUGLAS - MILER SUPREME



From 4mins. 8 secs. for the mile to 3mins.58.5 In three months.

HOW IT WAS DONE - We quote freely from the correspondence between Jim and Frank Horwill.

FRANK HORWILL writes to Jim on 20th June 1969 after seeing him run 4mins. 8 secs. In the Crawley Mile.

"I thought you made a good effort on Sunday and It was a pity you had to push the pace from 900 yards, but It is all good experience. I was Impressed with your running. With petience and hard work you can do well in the years to come, you have opportunities denied others and for this reason your outlook should be to use these to the fullest.

I am setting out here my training views based on nine years of coaching top mele and female milers. I can honestly say that every miler I have helped has improved. My views are not orthodox, then neither were Lydiard, Ceruity and Gerschier when they started.

Perhaps you could send me your views on training and we could discuss a plan to bring out the best.

I believe in training at FIVE PACES each 14 days. We have devised a table in the B.M.C. which is 90% occurate. This tells you what paces to train at. Your mile time is 4mins. 8 sees; this is we th pages to train at. Your mile time is 4mins.8 sees; this is wo the 880 in 1:53; 440 in 51 sees.; 2miles in 8:56; 3 miles in 13mins.39 sees. In doing these page times in training you provide staminate and 3 mile page work! for your mile and speediadC and 850 page work! Improvement in one event leads to improvement in all in the long tun. The success of our three milers as milers is achieved on THREE MILE. TRAINING, e.g. Derek Grahame, Mike Wiggs, Bruce Tulloh, Allan Rushmer, Ian McCafferty, etc. World class milers must be good 880 runners, e.g. Peter Snell, Herb Elilott, Jim Ryun, etc.

The following schedule gives you ALL BOUND PREPARATION. The aim is for 4mins, 4 secs, this year,

SUNDAY - 3 mile pace work - 3 x 14 miles in Omfas, 50 secs, with 220 jog rest.

MONDAY - 10 mile easy run. TUESDAY - 2 mile pace work - 3 x i mile in 4 mins, 28 secs, with 140 jug rest.

"EDNESDAY - ! hour releved tartlek on grass or in woods, THURSDAY - I mile pace work - 3 x 880 in 2mins, 2 secs, with 440 jog rest. FRIDAY - REST SATURDAY - Race 440 or 880

SUNDAY - 880 pace work - 4 x 440 in 56,5 with 440 jog rest.

MCNDAY - I hour fertiek on grass. TUESDAY - 440 pace work - 4 x 220 in 25.5 with 440 jog rest then 880 jog rest and repeat session.

WEONESOAY - 10 mile easy road run.
THURSOAY - 3 mile pece work - 2 x 2 miles in 9mins,06 wirn 440 jog rest.
FRIDAY - REST.

SATURDAY - Race I or 2 mlies,

SUNDAY - 2 mile pace work - 2 x 12 miles in 5mins, 35 secs, with 440 jog. MONDAY - 10 mile easy road run. TUESDAY - I mile pace work out - 1 x 4 in 3 mins, 660 jog rest 1 x 400 In 53 secs.

WEDNESDAY - I hour fartlek on grass. THURSDAY - 880 pace work - 1 x 660 in 82 secs. 660 jog rest 1 x 220 in 25 secs.

FRIDAY - REST SATURDAY - Race 440 or 880.

Repeat cycle again.



Morning training should consist of following sequence:-

MONDAY - 30 mins, slow run.

TUESDAY - 32 x 110 on grass at relaxed speed with 110 jog.

WEDNESDAY - 16 x 220 on grass at relaxed speed with 220 jog.

THURSDAY - No morning training.

FRIDAY - 30 mins, slow run. No training in the evening.

The first attempt at the cycle should be carefully recorded and then next time round efforts should ne made to improve the first times until the target cycle is achieved. THEN WE PROGRESS.

Specimen fartick would be:10 mins, jog; 60 secs, fast: 5mins, jog; 30 secs, fast; 5mins, jog;
90 secs, fast: 10 mins, jog; 30 secs, fast; 5 mins, slow; 60 secs, fast; 5 mins, slow; 60 secs, fast; 5 mins, slow; 90 secs, fast; 10 mins, jog."

JIM DOUGLAS writes to Frank on the 1st July 1969:-

"First of all I would like to thank you for your words of encouragement and secondly for your letter. I have only just returned from Exmouth so this is the first opportunity I have had to read it. As I have never had a set training schedule before and never been trained before, my aim is to strictly adhere to the one you have set down. My belief is that the speed work over 440s and 880s pace work will be well within my reach as I have done a lot of this work. Where I shall feel the crunch Is in the longer runs because I have never trained over these distances. As soon as the road work(winter) has finished I usually go straight onto speed work. Perhaps this is why I am lacking, but anyway I am game for anything....

I do not expect overnight results and I'm willing for several years of perseverance before times of which you only dream of start to come true."

On the 30Phjuly 1969 Jim sends in his first training reports-

"THURSDAY - 3 x 800 in 2mins.2.1; 2mins.2.8; 2mins.3.0. 440 jog.
FRIDAY - REST.
SATURDAY - 1,500metres race 3mins.48 secs; 800m in 1.53.1
SUNDAY - 4 x 400 in 56; 55.8; 55.6; 54; 440 jog.
MONDAY - A.M. 6 miles. P.M. 50 mins. Fartlek.
TUESDAY - A.M. 32 x 110 relaxed. P.M. 4 x 220 440 jog 880 jog repat.
25.4; 25.4; 25.4; 25.5; 24.6; 24.8; 25.8; 25.5.
WEDNESDAY -A.M. 16 x 220 relaxed. P.M. 10 mile road run slow
THURSDAY - REST.
FRIDAY - Heats of S.C.A.A.A.
SATURDAY - Won 1,500 metres in S.C.A.A.A.
SUNDAY - 3 x 1 mile in 4:28; 4:30; 4:33.
TUESDAY - 3 x 800 in 2mins.0.8; 2mins.0.9; 2mins.0.9tCompare this to the times of the tirst attempt).
WEDNESDAY - City Mile 3mins.58.5"

Just before he left for Athens European Games, he recorded times of 1.56; 1.56; for the 3 x 800, but actually flew out with a stress fracture of the lower third fibular, this affected his running in the heats where he failed to quality. On return to England he missed training for 8 weeks but found enough training time to record 2mins. 58.5 secs. In a 4 mile 8.M.C. race at the Crystal Palace on 1st April 1970. A fortnight later he suffered teno-synovitis of the metatarsus bones and was forced to miss the inter County Championships. We all send this courageous miler and very pleasant chap good wishes for a speedy recovery.