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SPORT international

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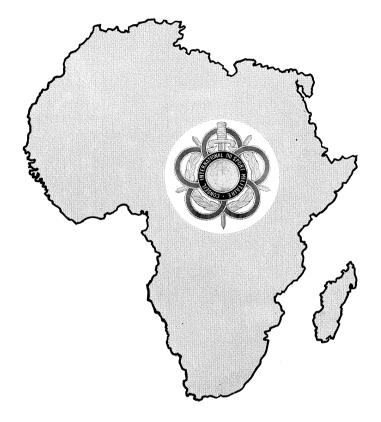
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Cover photo: Jim Ryun

Editorial

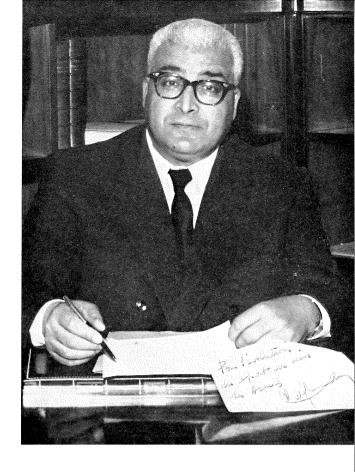


TUNIS — Once again, a top-notch job: wonderful hospitality, outstanding organization, Research Days on Tendinitis... We thought it appropriate to reproduce below an editorial from the important Tunisian newspaper «L'Action» which gives an admirable description of the scope of the Tunis Research Days.

R. MOLLET,

Permanent secretary general

The bridge to rapprochement



1967 was, from the outset, placed under the sign of sports. Numerous official or informal events have already taken place or will be organized during the coming months. The most marking of them all will, of course, be the Mediterranean Games scheduled for next September - a championship which has already triggered impassioned conjectures on the part of the participating nations and which Tunisia has raised to the level of a national event by rallying all efforts toward ensuring its overwhelming success. However, there were and will be many other championships in which our country was and will be faced with foreign challenge. As sole contender from the African Continent, its participation in the World Handball Championship hosted by Sweden has reserved to ensure our team to a sport which is gradually gaining in popularity at home. Our great victory in the recent World Military Cross Country Championship is creditable to our outstanding Gammoudi and the excellent team which supported him. Furthermore, our participation in the African Soccer Championship, the finals of which are to take place in Addis Ababa, justifies optimism as to the outcome - what with the easy victory of our team over the Cameroons.

Yet, beyond these purely competitive successes, beyond the flurry of feverish preparations, our greatest reward lies in witnessing the successful outcome of a gigantic effort which was started a decade ago. Our truest gratification is to have finally reached the day when we can take our place among the more advanced nations, not so much — we must admit — by virtue of the international level of our various sports teams, but through the spirit of our sports policies, by the actual rehabilitation of sport in our country and by its tremendous expansion throughout all the areas and social strata of our nation.

In Tunisia today, sport is no longer the privilege of the large city dweller, nor is it confined to soccer — which, for that matter, was for a long time little more than a «tribal feud on a battlefield ».

Following the downfall of the colonial system, sport has recovered its real vocation. It has reverted to being what it was meant to be: a requisite in the formation of a healthy and strong youth. Little by little, it has instilled itself in the scholar system — in high schools, in workshops, in factories. Everyone has now understood the role of sport in training the mind, in promoting individual equilibrium and harmony. Our citizens have now gauged the extent of the contribution of sports in the field of positive combativity, friendly competitiveness, self-discipline, collective effort, the will for action, and the quest for success. Sport is once again an unequalled medium of understanding and mutual respect. It is, in our view, the privileged area of noble confrontation, of loyal contact — and a bridge of understanding between men. It is finally a form of training toward social integration as well as friendship and cooperation.

It is to these by-products rather than to the mere sports performance that International organizations and officials address frequent tokens of support and admiration. It is in recognition of these achievements that we have been honored with a particularly significant acknowledgement — that of being awarded the medal of honor of the International Military Sports Council. This concrete tribute to Tunisian sport was presented to Mr. Bahi Ladgham.

Moncet JAAFAR

PIERRE de COUBERTIN

"THE OLYMPIC SAGA ,,

Credit for the excellent review of M. T. Eyquem's recently published book goes to J. Paulhac, an old friend of CISM's.

We feel sure that J. Paulhac's comments will entice us all to read the work which our esteemed colleague, M. T. Eyquem has entitled « The Olympic Saga ».

Marie Therese Eyquem, Inspector General of the Department of Feminine Sports, has recently published a book of such impact as to warrant a particularly detailed analysis.

The figure of Pierre de Coubertin seems to have been caught in the web of his success and literally trapped in the frame of Olympism. Moreover, the aspects adopted by modern sport, its universality and character of democracy strike us as necessary and unavoidable. Yet, the evolution of sport might have taken an entirely different course and encounter crises — even revolutions — which it was spared. This favorable outcome, it must be acknowledged, is largely creditable to Pierre de Coubertin and the merit of Marie Therese Eyquem's book lies in her clear presentation of this fact.

For the sake of historical accuracy, let us first remember that modern sport was conceived in England. Originally viewed as a medium of education by Thomas Arnold, sports remained for a while confined to a scholarly and rather aristocratic background. Even when it later expanded beyond the school boundaries, sports retained their sophisticated aura and remained the privilege of the wealthy. « Players » and « professionals » were tolerated by the « gentlemen », but excluded from the « amateur » category — the realm of those who did not have to work for a living.

Let us also remember that the Olympic Games were originally reserved for those Greeks only who were born free. Slaves and foreigners were automatically excluded: this nationalism and segregationism were still to be found at the time of the sports rennaissance and threatened to cripple its expansion.

And this is when a short, thick-set aristocrat, with lively eyes and a black mustache, suddenly made his appearance on the scene.

Marie Therese Eyquem brushes a very vivid picture of him and her account of his childhood and youth is on a par with the great biographies of our times.

In order to fully fathom de Coubertin's exceptional personality, let us imagine him in his own surroundings, the background of his birth and life: born to a titled family of staunch royalists and catholics, the living illustration of conservatism, for whom young Pierre de Coubertin has nothing but respect and love, his rejection of the values offered rather than imposed on him cannot be explained by either temperament or sentimental revolt. We are observing a serene, determined spirit drawn to liberalism under all its form. He finds the French system of education stifling. He requests — and obtains — to be sent to England. The methods advocated by the British colleges, their endeavor to achieve the harmonious development of both body and mind, the responsibilities which they place on the child: this is what he wants.

The concept of dual education — that combining pedagogy and sports — was praised by de Coubertin three quarters of a century before its actual experimentation at Vanves. This pioneering spirit is also clearly evident in his historical endeavors: in this area, he displays personal views and, while hampered by a rather sparkless style, his ideas are brand new; he is also a daring sociologist, whose dream is to raise the worker's standards to a level where humanistic values would be placed within his reach. In short, this aristocrat — in the Greek sense of the word —



is an exacting democrat, whose ideal is to promote social equality by bettering the lot of those falling short of the established criteria.

This, then, is the man who, on 25 November 1892, took the floor in the great Sorbonne amphitheater where the French Society of Athletic Sports was celebrating its fiftieth anniversary, an event honored by the presence of the President of the Republic. De Coubertin asks for the reinstatement of the Olympic Games. His suggestion is received with polite interest, tinted with irony. The audience envisions a form of parody, a theatrical reconstruction, with actors playing the part of athletes. No one has grasped the originality of de Coubertin's thought, nor the impact it would later generate.

We cannot discount that sports may have acquired their universal and democratic characteristics without

de Coubertin's impulse. However, they would have more than likely been marred by the interference of politics and dissention. No supranational authority could have ruled in this field, except perhaps in the area of technique and regulations.

A Committee for World Championships would have served as an arena for both political and sports rivalry, a market for haggling far more contemptible than that arising from umpiring in certain games — the latter being, all told, harmless enough...

Pierre de Coubertin foresaw this threat and, in order to ensure the independence of the International Olympic Committee and vest it with its democratic and non-racist character, he resorted to the most anti-democratic system of all, that of cooption.

This was a masterpiece of calculation as well as a striking paradox, for we must bear in mind that the

man was a liberal and that the International Olympic Committee, this inaccessible, quasi-feudal territory, was to be governed by genuinely liberal and non-racist principles.

The initial stage of the Olympic Saga was dramatic, burlesque... dazzling. There is no denying that the 1896 Games in Athens, staged in the white marble stadium designed by Pierre de Coubertin himself (a most beautiful structure, indeed, but not very practical...), were a magnificent success. But what cunning, what determination it required on the part of de Coubertin...

Upon arriving in Athens, he found himself in the midst of a political turmoil triggered by the Games themselves. The leader of the opposition, supported by public opinion, was in favor of the Games. Quite naturally, Prime Minister Tricoupis opposed the project. In the absence of the King, Prince Constantin sided with de Coubertin.

The King was no sooner back that the Prime Minister threatened to resign... However, the Monarch decided to back de Coubertin and accepted Tricoupis' resignation. It was a pure comedy, with the difference that the stage was replaced by a Stadium. In the meantime, Europe, the whole world, are the scene of petty squabbles between stupidity and vindictiveness: The French will go to Athens only if the Germans are excluded. In Germany, it is whispered that this stand is supported by de Coubertin. De Coubertin must write, protest, bait, reassure... He writes to England, which is sulking over crushed hopes of Pan-Britannic Games; he writes to America, where he is betrayed... He keeps on writing, he is winning; he has won...

For the first time, a flight of doves soars at the report of a pacific cannon blast; for the first time, a Chief of State, a King, declares the Games open in the presence of sixty thousand spectators. And the outcome of the Games gives Greek pride the supreme reward: a shepherd, Spiridon Louys, wins the Marathon. He is the symbol of national perseverance, of the revival of the Greek motherland which has thrown off a secular yoke.

But de Coubertin's project now becomes jeopardized by its very success: King George wants to confine these renovated Games to Greece. Why not?...

One can easily imagine a huge meeting in Olympia, every four years, of the world's youth. Some people are clinging to the thought to this day.

De Coubertin puts up a brave fight. He knows that the future of the Games is contingent upon their cosmopolitism. He wants to avoid the pitfall of set ways, he wants each event to reflect the characteristics of the people hosting it. And so, he decides that the following Olympics will be held in Paris. He might have preferred an American or British city...

but Paris is staging an exhibition of his works just at that time.

De Coubertin diplomatically snatches the Games from their Greek orbit. Alas, the din of the event of the day — the exhibition — drowns the Olympic Hymns. Paris, as was Saint-Louis in 1904, was to be but a village fair, a display of muscles, a caricature of Athens.

On 16 January 1907, Georges Prade writes: « The Coubertin Committee is no more. The French federations have formed a syndicate and officially decided to neither recognize, nor participate in the Olympic Games if the Olympic Committee is not fully entrusted to their supervision. The self-appointed leader which was Mr. de Coubertin has become a historical memory. »

The French federations are not alone on the rampage — revolt is brewing in America as well. The U. S. F. S. A., which had once supported de Coubertin, suddenly deserts him and this change of heart is commented upon as follows in Paul Chamy's publications: « What the Americans are, in fact, asking for is the creation of an International Sports Union which would nullify the role of the International Olympic Committee, whose members were appointed by Mr. de Coubertin who, in turn, has no authority beyond that he bestowed upon himself. »

But Pierre de Coubertin does not give up. He schemes, writes, persuades. The International Olympic Committee goes on. The London Games, in 1908, number 2 059 sportsmen — among whom 36 women — hailing from 22 nations.

Marie Therese Eyquem writes: «The Stockholm Olympic Games, in 1912, marked the maturity of Olympism.»

So, Pierre de Coubertin has won. But he want to go further yet. Scorning the powers that be, he declares: « A nation is not necessarily an independent state, and there is such a thing as a sports geography which may sometimes differ from the precepts of political geography ». And thus he brings recognition to the Australian, Canadian, Hungarian, Zcech, Finnish, etc... Olympic Committees.

London accepts such impertinence from the International Olympic Committee, but St Petersburg and Vienna protest...

This is where de Coubertin's diplomatic genious comes into play: « I brought forth that the Czar bore the title of Grand Duke of Finland, and the Emperor of Austria that of King of Bohemia, and that, hence, both these states enjoyed a status different from that of territories of lesser autonomy. All my efforts were geared toward gaining time and, in this endeavor, I confused the issue, writing to St Petersburg or Vienna directly, to Stockholm, to the National Committees... St Petersburg wound up leaving us alone... »

An incident which took place at the Stockholm Games points to the fact that, in spite of their success, the spirit of the Games was still in jeopardy. Sure of victory on the premise that five of the six finalists in the 100-meter were their own nationals, the Americans proceeded to hamper the performance of their best runner, H. P. Drew, a negro...

24 years later, in Berlin, four of their medals were won by a colored athlete, Jesse Owens.

In 1914, the Paris Congress of the International Olympic Committee commemorated the twentieth anniversary of the reinstatement of the Olympic Games and France paid tribute to de Coubertin. However, in 1910, the French Government had not yet recognized the Olympic Games.

The war dealt a near-fatal blow to the International Olympic Committee. The British representative demands that de Coubertin bar the German members. De Coubertin realizes that the International Olympic Committee must be better sheltered from nationalism.

He requests and obtains Swiss asylium. Lausanne becomes the administrative headquarters of the International Olympic Committee. De Coubertin did a lot of thinking before he choosing Lausanne: he had the feeling that the Swiss Federation, which includes three ethnic groups « was silently playing the role of touchstone for the civilized nations ».

This sports internationalism did not, in the case of Pierre de Coubertin, preclude a strong love for his country. During the very first days of the war, he reported to the recruiting office. But who wants a fighter with graying temples? De Coubertin places himself at the disposal of the government. Albert Sarault appoints him as inspector of educational centers.

His report, which we cannot quote at length here, is another testimony of his genius.

De Coubertin criticizes the sterile quarrel of methods « the value of which is but that of the man who applies them ». He criticizes the aptitude tests for Physical Education Instructors, which he terms too « medical », giving too much importance to theory, too conservative, and leaving but little room for pedagogy. « It is not with exercises suited for a sanitarium that we will make men out of our youngsters. »

What he advocates in the area of organization is also half a century ahead of times: creation of regional leaderships, under the supervision of rectors, decentralization of credits, overtime for teachers instructing outside the school, in clubs, etc. « This pursuit of accuracy to the most minute detail is the mark of genius. »

Calisthenics lost considerable ground after the war. And de Coubertin once more accurately predicted: « The public will come to realize that through snobbery, it has long deprived itself of a particularly attractive show of daring and beauty. »

1936 — ultimate victory: that scored over the nazi pride before which Europe draws back step by step. Hitler must witness the quadruple triumph of Jesse Owens. When the dictator arises to flee the spectacle of aryan defeat, the crowd also gets up but does not follow and the astonished athleted hears the clamors which acknowledge his victory: those of a crowd which its love for sports has temporarily released from the dark spell in which it is held by the hypnotist with the hoarse voice.

On 2 September 1937, Pierre de Coubertin is strolling along through the Lagrange Park in Geneva. He is seventy-four years old. His seventieth birthday was celebrated throughout the world, except in France.

What is little known is that he was penniless, or almost. He tried in vain to find a job. The International Olympic Committee succeeded in raising important funds: He does not want to touch them, knowing that they will soon be needed by his family.

Suddenly the passers-by saw his raise his hand to his heart. He collapsed, stricken: « Death, where is they victory? »

The best part of himself, the Games, his soul, have survived and one can state that Olympism has given sport a dimension which it was lacking.

De Coubertin... without whom sports would not be what they are...

Jean PAULHAC

CHRISTIANITY AND SPORTS

His Holiness Pope Paul VI granted a private audience to the members of the various delegations convened in Rome to attend the 64th session of the International Olympic Committee.

On this occasion, the Head of the Roman Catholic Church delivered a speech of a great moral and universal impact.

We are quoting hereunder several excerpts of this meaningful address.



You will allow Us to consider your presence here as an invitation to a cooperative effort with the world of sports. Are you not, indeed, its highest and most qualified authority? We could not hope for a more knowledgeable interlocutor than the International Olympic Committee.

However, such cooperation could, at first, appear surprising. Objections spontaneously come to mind, the first and most natural one being: « What is the connection between religion and physical education? » What utter incompatibility between the one, entirely devoted to God, to the soul, to spiritual matters, and the other, fully absorbed in man's most concrete aspect: his body, limbs, and muscles. Aren't sports extraneous to religion by definition?

Moreover, the modern expression of the sport concept centers on competition, struggle, and the endeavor to defeat an adversary; on these premises, wouldn't sports appear as an encouragement to rivalry, an element of discord, a factor of social disintegration? Yet, what does religion preach but understanding, harmony, fraternity, social peace, and the reduction of antagonism?

Doesn't the very title of your organization — « Olympic Games » — sound like a challenge to those whose efforts are devoted to the world's most important goal: that of guiding the souls toward God, of sanctifying and saving them? This reference to « Games » may seem highly frivolous in the tragic context of man's eternal destiny.

The church views such objections as more sophisticated than sound. It detects therein an element of presupposition which it cannot accept, anxious as it is to recognize all true values in today's world and its various expressions of personal and social life.

Whether it considers sports as physical, moral, social, or international education, in all three areas it discovers not only common points, but deep harmonies and a form of affinity between their healthy practice and its own doctrine. And who would wonder? Hasn't the same God created both the soul and the body, both moral and physical beauty? There is no room for misgivings: the real God is the friend of life since he is its creator, and can but approve competition and games when carried out in mutual respect and in the interest of man's well being. But there is much more to sports than the mere aspect of physical education. It is also a powerful factor of moral and social education: and, there, the dialogue with Church becomes more cordial yet, for the points of view are drawing remarkably close.

First of all, what a school of loyalty, the practice of sports! What respect it holds for the concept of « fair play »! What contempt for any attempt at fraud! And then, what ascetism! What an antidote against listlessness, indolence, and laxity! What a demanding master! What discipline it expects, what spirit of sacrifice, self-control, courage, and fortitude.

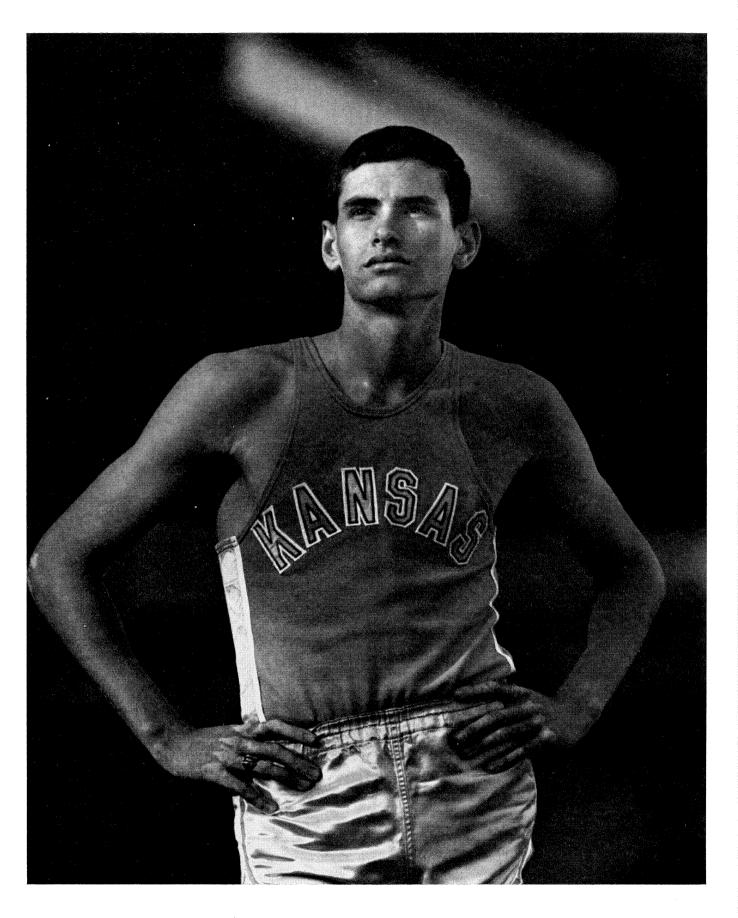
But, let Us tell you, all of this is ours!

And if sports can contribute equally to the betterment of man, how could they be harmful to society and constitute an anti-social or asocial element? The practice of your admirable Olympic Games negates this objection and reveals that sports are a social factor of the highest level, when practiced in accordance with the principles which are yours and those of all true sportsmen.

Hence, it follows that the practice of sports at the international level — that which found its truest expression in the Olympic Games — has proven most effective in fostering brotherly feelings among men and disseminating the ideal of peace between nations. In the area of international competitions, the citizens of various countries learn to understand and respect each other, to practice among themselves the hospitality and thoughtfulness dictated by the precepts of international courtesy.

They learn to face each other in pacific challenge at the Stadium rather than in fratricidal encounter on the battlefield. War — the greatest foe of mankind — is also the enemy of your noble and peaceful performances. And thus, a glance at the list of Olympic Games, which have been held every four years since their inception, reveals blanks on fateful years marked by bloody conflicts: 1916, 1940, 1944. Who would dare call « frivolous » these « games » which succeeded from the start where politicians are still groping their way in the midst of so many harrowing obstacles? To the impartial observer, you are a great universal institution at the service of peace in the world.

We read, in the « General Principles » which serve as heading to your Statutes, that « the goal of the Olympic movement is to instill enthusiasm for both the physical effort and moral qualities which are the bases of amateur sports as well as to promote understanding and peace among peoples ». Physical effort, moral qualities, and love for peace... on these three points, We hope to have shown it, the dialogue which the Church is carrying out with the world of sports is sincere and cordial. Our wish is that it become ever broader and more productive.



JIM RYUN

America's Sportsman of 1966

by Bill McNAMARA CISM, information's chief

Jim Ryun, only 19, was the youngest person ever selected as America's sportsman of the year. His achievements have been striking.

Much was expected of Ryun after track followers became aware of him in the spring of 1963 when, as a 16-year-old high school sophomore, he ran the mile in 4'08"2.

He has more than fulfilled those expectations. At 17 he became the first high school to break four minutes and he made the U.S. Olympic team. At 18 he defeated the redoubtable Peter Snell, then the world record holder, in a 3'55"3 mile, fastest ever run by an American.

At 19 he reached the acme of achievement. On May 13, competing in a two-mile race for only the second time in his career, he did 8'25"2, the third fastest two-mile ever run.

On June 4 he ran the mile in 3'53"7, a tenth of a second off Michel Jazy's world record. On June 10 he dropped down to the half mile and set a new world record of 1'44"9. And on July 17 he broke Jazy's mile record by almost two and a half seconds when he ran 3'51"3.

It was an astounding performance. Ryun returned the mile record to the United States for the first time since Britain's Sydney Wooderson snipped threetenths of a second off Glenn Cunningham's 4'06"7 record in 1937.

Ryun was willing to endure the pain and practice necessary to become the most remarkable runner since Phidippides, the Greek messenger who ran from Marathon to Athens to tell of a storied victory over the Persians in 490 B. C.

Jim has good reasoning powers. He's aware that no less an authority than Dr. Roger Bannister has said that he didn't believe man would reach his physical limit until he ran a mile in three and a half minutes.

Dr. Bannister is medicine's foremost authority on the psychological effects of the mile on the human being for the simple reason that he broke the psychological barrier.

When Dr. Bannister ran the first four-minute mile, with a 3'59"4 clocking, he destroyed a myth and showed the way to no fewer than 71 men who since have discovered they wouldn't drop dead if they tried to run too hard to fast.

They have to learn to punish themselves, as Ryun has done, and to overcome frustration and disappointment. Ryun lost his first race in high school.

The secret of his success was summed up by Bob Timmons, who coached him in high school and then was hired by the University of Kansas with the fond

JIM RYUN,

America's sportsman of 1966

expectation that he would make Ryun a world champion.

« Its his ability to push back the pain barrier », said Timmons. « In track, as in swimming, if you keep working long enough and hard enough, the pain becomes terrific.

» If you want to be great, you can't let down. Jim has the ability to keep going, to fight in through, to push back the pain barrier, day after day.

» Each time he does this, he's able to go farther the next time before the pain sets in.

» Jim keeps up the battle because he knows it's the only way to progress. And he's simply unable to accept anything less than the best from himself. »

Ryun, accustomed to running in the flat wheatlands of Kansas, is encouraged by Timmons as part of a Spartan regimen to run up and down the steep hill from the stadium to the University's memorial campanile, four times a day. Also, he lifts weights and swims.

Ryun's father, Gerald, has worked at a Wichita aircraft plant for 18 years. The balance of his family consists of his mother, a younger sister, Jeanette, 14, an older brother, Jerry, 24, and a pretty young wife he recently married.

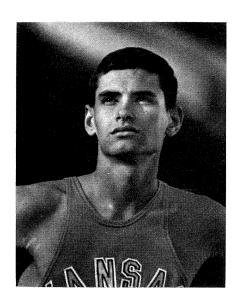
Although fast on the track, Ryun is a slow poke at home. « Everything he does is slow and easy — except on the track », said Jim's brother, Jerry. « You'd think he could go to sleep standing up he's so relaxed », added the father.

But on the track it's all work and constant striving to attain ever higher goals. In fact, Ryun has known little else except running and school work since age 15. Jim's remarkable achievements are in large measure traceable back to the philosophy of running instilled in him during his high school days by Timmons.

Timmons spent a lot of time with Ryun and his high school teammates going over the psychological aspects of competition. He firmly believes that the establishment of goals is basic to achievement.

Consequently, he required each of his runners to select his own practice, meet, season and career goals. The geoals were based upon individual ability level — difficult to achieve, but within reach. Upon achieving one goal, each individual established a new one, and thus moved up the performance ladder.

At a squad meeting the day before competition, every athlete was asked to commit himself to a goal. Timmons felt they're inspired by hearing each other state his objectives. As a result, Kansas has produced some of the greatest schoolboy runners in America.



DETAILED TRAINING PROGRAM

MONDAY, JULY 11		WEDNESDAY, JULY 13	
AM :		AM :	
Warm up	$\begin{array}{ccc} 1 & \text{mile Cross Country} \\ & \text{Calisthenics} \\ 4 \times & 100 \\ 4 \times & 60 \\ & \text{Not timed} \end{array}$	Warm up	One mile Cross Country Calisthenics 4×100 4×60
$1 imes880: \ extstyle{Jog 440}$	Nov villed	4 imes150: Jog 440	Jog 150 (*)
$1 imes 660: \ extbf{Jog 440}$		$egin{array}{cccc} 4 & imes & 120 : & & & \\ \mathbf{Jog} & 440 & & & & \end{array}$	Jog 120
1 × 550:		4 × 100 :	Jog 100
Jog 440 1 × 440:		Warmdown:	One mile Cross Country
Jog 440		PM:	
$1 \times 330: \\ \text{Jog } 440$		None	
$10 imes 120 ext{ (grass)}$		THURSDAY, JULY 14	
Warmdown:	One mile Cross Country	AM:	
PM: 4 miles Cross		1 mile (grass) Calisthe- nics	
Country		8 × 120 :	Jog 120
TUESDAY, JULY 12		One mile (grass)	
AM :		PM:	
Warm up	1 mile Cross Country Calisthenics	None	
	$egin{array}{lll} 4 & imes & 100 \ 4 & imes & 60 \end{array}$	FRIDAY, JULY 15	
2×330 :	Walk 110 (*)	AM :	
Jog 440		1 mile (grass) Calisthe-	
$egin{array}{ccc} 3 & imes & 220 & : \ & ext{Jog} & 440 & : \end{array}$	Jog 220	nics 8 × 120 :	Y 100
4 × 150 : Jog 440	Jog 150	8 × 120 : 1 mile (grass)	Jog 120
5 × 120 :	Jog 120	SATURDAY, JULY 16	
Warmdown:	One mile Cross Country	3 miles Cross Country	
РМ :		momer non where	
2 miles Cross Country		TOTAL FOR WEEK: 42 miles	
	n 1 - 5		

JIM RYUN,

America's sportsman of 1966

Jim's actual time and his goals for each of the quarter splits in this record shattering performance were:

Mile —	Actual time	Goals —
220	29''1	29
440	57''1	58
660	1'25''8	1'27
880	1'55''4	1'56
1 100	2'25''6	2'25
1 320	2'55''0	2'54
1 540	3'23''1	3'23
1 760	3'51''3	3'52

World record (old record: 3'53"6, Michel Jazy, France, 1965).

 $1\,500$ meter time: 3'36''1 (third fastest $1\,500$ ever run).

Calisthenics and weight training also play an important role in Ryun's total training program. Individual exercises in both programs include:

Calisthenics

Side straddle hop Toe touch and reach Hurdle stretch Sit ups Half knee bends Push ups Trunk twisting Toe raises Running in place

Weight Training Exercises

Barbells (50 lbs)
2 sets of 20 repetitions
Tricep curls
Military press
Upright rowing
Bent-arm rowing
Bicep curls (regular & reverse)
Half squats
Toe raises
Pullovers

Ryun set goals for himself in the July 17 All-American Invitational Meet, in Berkley, California, where he broke Jazy's world record. And he ran a total of 42 miles the previous week, in preparation for that meet. The following is a detailed breakdown of Ryun's twice a day training program for the week July 11-16, 1966:

Swimming is the final element of Jim's total training program. He usually ends practice with three or four flutter-kick drills on a two minute interval. These drills help to prevent or eliminate shin splints.

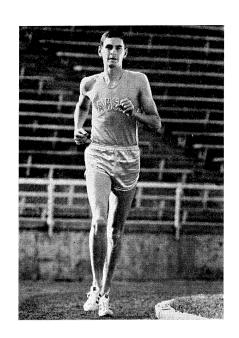
Ryun has the attributes of a champion — ability, willingness to work, competetive spirit and pride. Track observers predict he will eventually run a 3'48"0

mile and establish middle distance records that may stand for a decade.

« I think that it can be done, but everything must be just right, » Ryun said. « That is, I must be physically ready and get myself in a good mental state. The mind is more important than the body ».

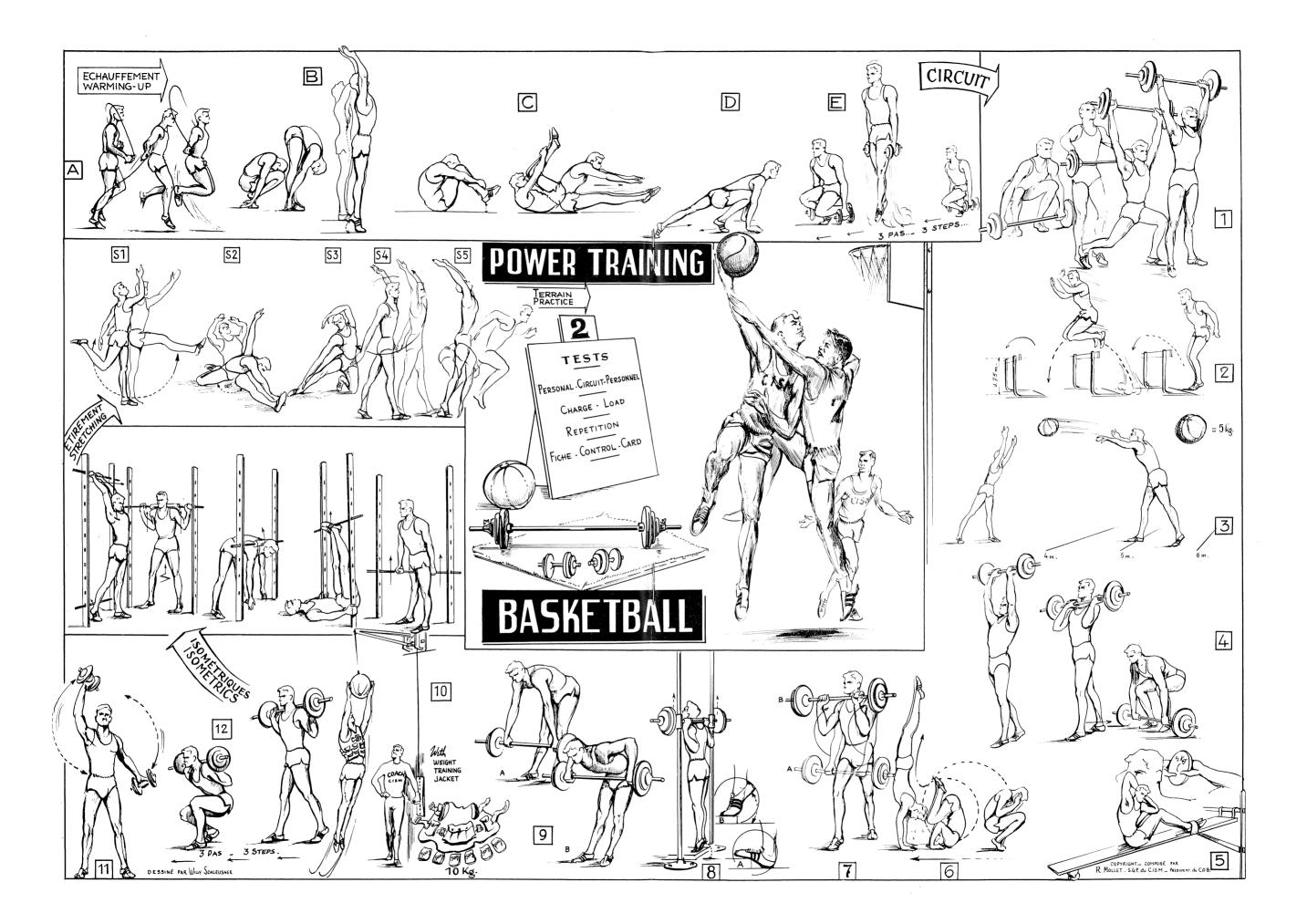
« Certainly, I think I should be able to do it, if I keep at it. But I don't know how long I'll remain interested. Running, you know, isn't everything in the world ».

If he doesn't become suddenly self-satisfied or lose interest, the highest mountain is still ahead — a mile under 3'50.



The ten best all time milers

Time	Athlète	Place	Age	Date
~	~	~	~	
3'51"3	JIM RYUN, (U.S.A.)	Berkeley, California	19	le 17- 7-1966
3'53"4	KIPCHOGE KEINO, (Kenya)	Rennes, France	26	le 20- 8-1966
3'53''6	MICHEL JAZY, (France)	London	28	le 9- 6-1966
3'53"8	JURGEN MAY, (R. Féd. All.)	Wanganui	23	le 11-12-1965
3'54"1	PETER SNELL, (New Zealand)	Aukland	25	le 17-11-1964
3'54"5	HERB ELLIOT, (Australie)	Dublin, Irland	20	le 6-8-1958
3'55"4	JIM GRELLE, (U.S.A.)	Vancouver, Canada	28	le 15- 6-1965
3'55"5	JIM BEATTY, (U.S.A.)	Compton	28	le 7- 6-1963
3'55"6	DYROL BURLESON, (U.S.A.)	Compton	23	le 7- 6-1963
3'55"6	JOSEF ODLOZIL, (Tchécosl.)	London	26	le 30- 8-1965



DROWNPROOFING

by Major George OTTOT, USMC

and Bill McNAMARA

CISM, information's chief





There is something new under the sun — at least in the field of swimming. It is a deceptively simple way of combining arm and leg motions with a precise breathing technique in such a way that anyone with desire, irrespective of sex, age, condition, strength or fear, can stay up for hours and swim for miles after just a few lessons.

The U. S. Marine Corps recently completed an extensive evaluation of this new system, called « drownproofing », at its Parris Island, South Carolina, Recruit Depot. More than 14,000 recruits were instructed over a six-month period. Results conclusively establish drownproofing as superior to any other known method of water survival. It has, therefore, been adopted and will shortly supplant swimming instruction throughout the Corps.

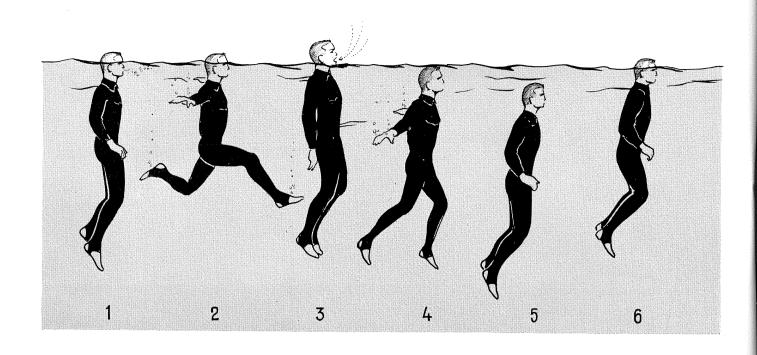
Drownproofing was conceived and developed by the late Fred Lanone, Professor of Physical Education at the Georgia Institute of Technology.

Several aspects of physics form the basis of « drownproofing ». The first is that 99 % of all men will remain on the surface in fresh water without moving, if they are chock full of air. About 99.99 % of all women will do the same. Actually in one thousand cases of both sexes, only half a dozen will sink if taught to float properly. Momentum and inertia forces — plus shifting floating angles make this figure seem wrong. Proper instruction proves it correct.

An average head weighs close to fifteen pounds, so as a man floats vertically (most men float nearer the vertical than the horizontal), about five pounds of meat are in the air, and with women about eight pounds protrude. These figures are general — fat and tidal air volume — muscle and bone density — air trapped in clothes — the wet weight of the clothes themselves, all are factors.

If a man wants to keep his nose and mouth out of water all the time and see where he is going, he must hold up with muscular energy at least five pounds all the time — during the exhale a lot more — and with clothes even more. These sound too small to be important but over a period of time it causes most of our drownings because of the steady drain of energy.

« Drownproofers » answer to this particular problem is simple — why hold any meat out of water except when it is necessary? They believe in dropping down into the water for a rest between breaths where there is a positive force always pushing them UP rather than dragging them down. Simple huh? But when you try it it's not so simple because skill is involved in breathing close to the water.

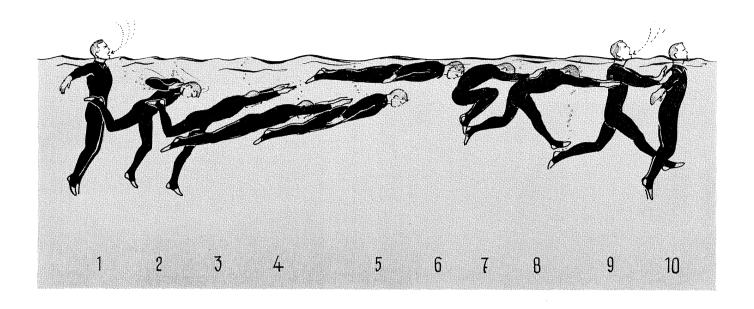


Fresh water stay afloat technique

For practically all women — many men — and most all kids.

- 1. Rest vertically (especially the head) with arms and legs hanging. Make sure the mouth is empty by spurting water between compressed lips with tongue. *Don't blow it*.
- 2. Get ready by extending arms sidewise, and extending one leg in front and the other in back.
- 3. Press feet and hands down at the same time exhaling through the nose and opening the eyes, followed immediately by inhaling through the mouth.
- 4. Just as the top of your head disappears below the surface, give

- a slight downward push with arms, legs, or both, then.
- 5. Let everything rest, dangling arms and legs during the return to the top.
- 6. Rest until you feel like getting a breath - never until you need a breath. The rest interval will vary with individuals but should never be less than three seconds - should become six after a few minutes — should average ten after an hour, and many people have averaged three breaths a minute when thoroughly indoctrinated. Sinkers can stay up just as easily, but must use a different technique. The average non-swimmer easily stays up one hour, clad, without getting tired after five or six tries.



The drownproofers traveling stroke

Using the same basic breathing system and alternating it with a propulsive movement, it is easy for anyone to swim an indefinite distance, certainly a number of miles. Generally the average person can do this on the second or third lesson, after successfully completing the one hour stay afloat.

- 1. Full of air, starting to sink.
- 2. Lay head forward, bring hands to shoulders, get ready to kick.
- 3. to 6. First extend arms then kick then use slow shallow sweep of arms to the sides and glide up to and along the surface with head horizontal.
- 7. When you feel like getting a breath, extend hands forward, then bring BOTH knees as far up

- as possible, rounding the back, then,
- 8. With head still down extend one foot forward without letting the other knee go back, then,
- 9. Raise the head and breathe as usual while stroking down.
- 10. When executing these skills under the scrutiny of uninformed lifeguards, be prepared to either be rescued or banned from deep water, because to the uninitiated it appears that you are on the verge of drowning.

The first two month, the Marine Corps devoted to refining the instruction techniques and in experimenting with different methods of teaching. It was determined that in order to handle the tecruit load, two platoons must be instructed simultaneously, and

that this was feasible in the 25 × 50 meter pool available at Parris Island. Various methods of initial evaluation of the recruits' ability and buoyancy were used. Experiments were made as to proper division to the men to afford the greatest progress for recruits of varying ability. Within 60 days, the lesson plans were standardized and only minor changes in instructional procedures were required thereafter.

Standards for qualification in drownproofing were established as follows:

- 1) Jump into water from height of ten feet.
- 2) In full utility uniform, stay afloat for one hour in deep water without touching side. Boots may be removed after five minutes.

3) In full utility uniform, with boots, swim 75 yards with rifle.

During the initial period, all recruits received seven hours of Drownproofing training. Those failing to achieve the above standards were given an additional hour in which they were tested as second class swimmers.

Conventional swimming demands confidence, coordination and physical stamina. Drownproofing requires a basic knowledge of these fundamentals, plus a great deal of mental discipline.

The problem in teaching drownproofing is to instill in the student the motivation required to overcome his discomfort and natural reaction and continue the technique until it becomes automatic. Experience has shown that most students learn the movements rapidly, but that in executing the technique, they become uncomfortable after 10 to 15 minutes; many give up at this time and resort to previously learned swimming techniques or panic. Those who have the motivation to force themselves to continue through this period master the technique, and after 40 to 50 minutes find it automatic. The instructor teaches about 10 % technique and 90 % motivation. For this reason, the quality of the lectures is of primary importance.

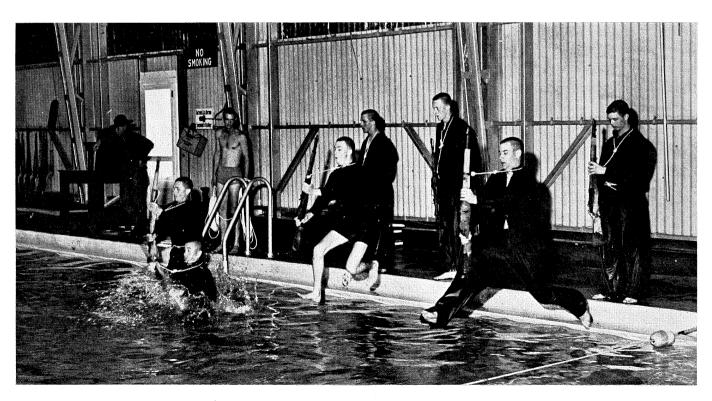
While personal mastery of the technique is essential to the instructor, he must be selected on the basis of his ability to present the lectures adequately. During the evaluation period, the most successful instructor was the poorest swimmer in the group, but he was an experienced senior Drill Instructor with a great understanding of his men.

Because of the great increase of time in the water for the drownproofing student, it is advisable to maintain the temperature of the pool at 85 to 90 degrees. Where heated pools are not available, training would be confined to the summer months. A 25×50 meter pool is adequate for training up to a maximum of 1,300 recruits per week.

During the initial study of the water safety instruction in the Marine Corps, it was postulated that Marines need two basic abilities in the water:

- 1) To remain afloat in deep rough water for long periods of time in the event of falling overboard or being sunk.
- 2) To reach the beach with his boots and rifle from relatively short distances from deep water or through surf.

The basic drownproofing tests were developed from these requirements. The instruction time required to meet these tests varies with the experience of the



Recruits Hours % 2nd Class % 1st Class trained per Recruit statistical results 10 526 10 2.4 July-November 1964 83.4 % Drownproofed 7 July-November 1965 14 658 75.1



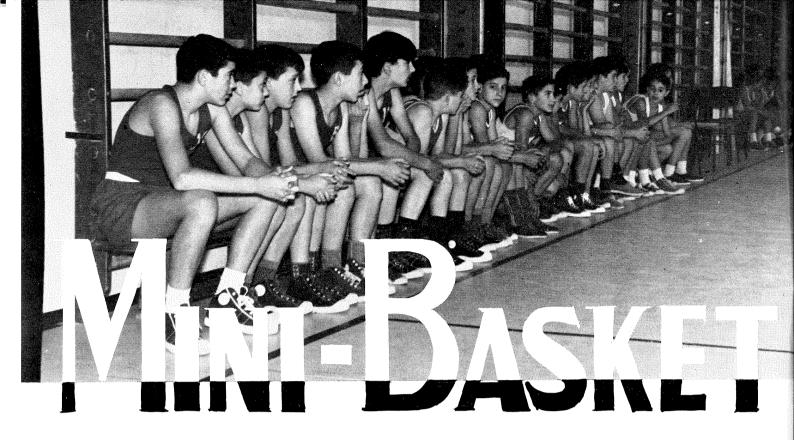
student, his motivation and his confidence in the water. Based on the work with recruits and with the Drill Instructors, it is believed that in excess of 90 % of all Marines could be qualified with 15 to 20 hours of instruction. Many Drill Instructors who were unqualified swimmers have been qualified within this time frame.

A comparison between Drownproofing and the old method of swimming instruction formerly utilized in the Marine Corps illustrates the substantial advantages acquired through Drownproofing. The minimum requirement for all Marines to become 2nd class swimmers required the individual to swim at least one hundred yards in bathing trunks; to be Drownproofed, all Marines must be able to remain afloat in deep water for one hour while fully clothed and be able to travel a minimum of 75 yards fully clothed and carrying their rifle.

The Marine Corps will retain their swimming program until sufficient instructors have been trained to provide a Corps-wide Drownproofing capability. A school for Drownproofing instructors has been established at Parris Island to support the Drownproofing Program.







Ideally suited for the school program

Those who still contend that physical education in school is a useless dead weight may be considered as exceptions. At least we got that far in our country, and that is already something. A great many people are slowly but surely becoming conscious of the fact that, since school is one of the main centers of education, physical education should be fully integrated in its program with a view to promoting a healthy humanity.

Montaigne once wrote: « It is neither a soul nor a body that has to be trained, but a man. »

Physical training is a requisite component of a well-rounded education program — which is the goal of all schools.

However, physical education is comprised of exercises, games, and sports. The game element is, of course, more closely related to sports than to calisthenics. And thence stems the child's interest in sports. Pedagogy, in turn, is basically focused on increasing man's knowledge in those subjects which have originally attracted his interest. And we thus arrive at the concept of sports education. Too often yet, emphasis is placed on the merely corporal education aspect, whereas, pedagogically speaking, such endeavor should be defined as « total education » through corporal training. And since school is the preeminent center of systematic education, the form of training known as school sports education has a rightful place

in the institution's didactic methods, i.e. sports training based on «GAMES» as a primary educational factor within a program conducted in the school facilities.

We are still a long way from this « stadium » on the school premises, and even further off in the case of our elementary schools.

However, for the benefit of the school principals and teachers, whether specializing in academic subjects or in sports, who nourish a positive interest in the pedagogic value of school sports, it is our pleasure to introduce a game which was specifically devised for children between the age of 8 and 12.

WHAT IS MINI-BASKETBALL?

MINI-BASKETBALL is a game which was created especially for children with a view to initiating them to the principles of team sports.

One of the most educational of all team sports, basketball, is currently served, in Belgium, by a MINI-BASKET COUNCIL whose activities, devoted to children (8 years old and over), are centered on a program suited to the physico-intellectual capabilities of this age bracket.

The basic regulations of basketball remain unaltered, but the duration of the game, the dimensions of the

court, the height of the baskets, and the size of the ball were all scaled down, without detracting from the game itself or its emotional impact.

MINI-BASKETBALL is the Spanish version of BIDDY BASKETBALL, an initiation to the real game already popular in numerous countries and which was recently introduced in Italy and France.

A BRIEF HISTORY

BIDDY BASKETBALL is a «pre-sport», hailing from the United States. The game was conceived in 1950, by Jay Archer, to suit the capabilities of preteen players.

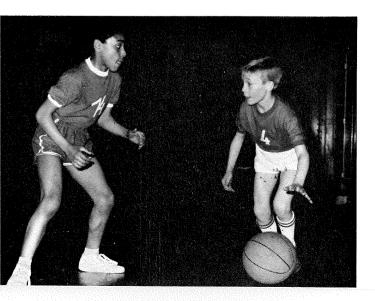
A year after its creation, the game made its way to all of the States of the Union, to include Puerto Rico. Canada, a geographical neighbor, was its second target.

In 1957, the game was introduced by its creator to more distant areas: Rangoon, Burma, and Formosa.

In 1955, it « invaded » South America, and, in 1959, Central America.

CHARACTERISTICS OF THE GAME

- 1. MINI-BASKET is a game for children 8 to 12 years old.
- 2. The players cannot be over 5'7".
- A minimum participation of six minutes is required in each game.
- 4. The court measures 18 m by 12 m.
- 5. The rims are placed $2\ m$ $60\ above$ the ground.
- 6. The backboards measure 1 m 20 by 0 m 90.
- 7. Distance for free throws: 3 m 60 from the board.
- 8. The ball (rubber or synthetic material) has a circumference of 0.70 to 0.73 cms and weighs between 450 and 500 grams.
- 9. The game is played in two halves (12 minutes each), both subdivided into two six-minute periods.
- A ten-minute break is scheduled at half time and a twominute rest between the six-minute periods.
- 11. The clock is not stopped during the game, except in the case of accident.
- 12. Each time will field 10 players.



- 13. Each player will be allowed a maximum of six fouls.
- 14. The games are supervised by an unofficial referee who keeps track of the time and calls the fouls. He is assisted by a delegate from each team who keeps the score sheet in duplicate.

THE TEN COMMANDMENTS OF MINI-BASKET

- MINI-BASKET is both a game and a sport. Seen as a game, it generates pleasure; considered as a sport, it must provide both physical and mental well-being.
- 2. The decisions of the referee will always be accepted as final.
- 3. Uncouth remarks to either the referee or other players as well as shouting will not be tolerated.
- 4. Prior to mastering the game, the player must be able to control his impulses.
- 5. Whether on or off the court, all team members are bound by the same responsibilities.
- One must play with a view to winning, but one must also know how to win or lose graciously and accept all decisions with dignity.
- The players and officials of the rival team must be treated with the courtesy and respect one would wish extended to his own team.
- 8. Silence will be observed during free shots.
- 9. The only advantage allowed in sports is that of superior performance.
- 10. The player will always take pride in belonging to the great MINI-BASKET family, which he will honor at all times by his behavior and the fulfilment of his obligations.

As a team sport, and more particularly when considered a school sport, MINI-BASKET will train the player toward social life, teaching to duly appreciate help and support, both received and given, and divert him from other occupations which often prove detrimental to his formation.

At the early age of 8, the child will acquire a magnificent sports discipline which will undoubtedly result in his becoming:

stronger more cheerful
more nimble healthier
more alert better educated
more sociable more congenial
more intelligent more sincere.

P. M. BATE, Administrative secretary Royal Basbetball Association

12 nations were represented

CISA 1 42

All three leaders...

XVIII CHAMPIONSHIP OF CROSS-COUNTRY — TUNIS



The Secretary of Defense opened both the championship and the Research Days



TAKE OFF!



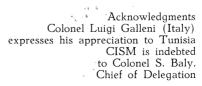
wind up on the podium

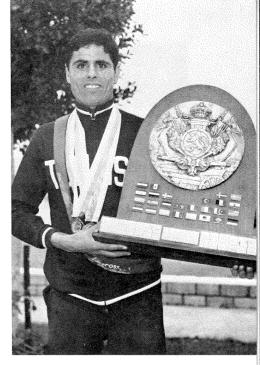


Short-Cross: 4 kilometers
Most successful innovation
The young Belgian team
won the trophy
offered by His Excellency
President Bourguiba



Michel Jazy, Guest of Honor, was presented with a beautiful cup





Impressive trophy, Happy Winner



The Tunisian team





Tendinitis

by Dr Paul MARTIN (Switzerland)

During the Tunis Research Days sponsored by CISM, Dr. P. MARTIN presented a very detailed report on Tendinitis as it affects Athletes.

In addition to being a medical authority of repute, Dr. P. MAR-TIN won the 800 meter event silver medal at the Paris Olympic Games.

He achieved the extraordinary feat of participating in the Olympic Games five times. We are most grateful for his assistance. Tendinitis, as it afflicts the athlete, is an inflammation of the tendon which joins the muscles in the calf of the leg to the bone of the heel (Achilles tendon). Extremely painful, it becomes the nighmare of the runner when contracted as a result of intensive training on the eve of high-level competitive events.

I have suffered from it myself for over two years. What agony! Traning was a constant torture and running required all of my willpower. I have had the opportunity to witness its effects on several great runners: Paavo Nurmi (when he chose to compete in the 1932 marathon), Jack Lavelock (winner of the 1.500 meter at the Berlin Olympic Games), Townsend (England's champion in 880-yard event whom the affliction made ineligible for the 1932 Olympic selection). Later placed under my care were other famed victims of tendinitis: the Belgian champion, Roger Moens, whose training for the Rome Olympic Games was greatly hindered by the affliction and who was thus robbed of the Golden Medal; the young Tunisian, Gammoudi (second in the 10.000-meter race at Tokyo); the lean and smiling Aurele Van den Driessche (who placed sixth in the Tokyo Olympic marathon and recently won the Six-nation Marathon in Berne). My patients were not all runners, but also included soccer players (as, for instance, Lerond, of the «Stade Français») and several renowned mountainclimbers.

What are the facts, medically speaking? This affliction, accute at the start and which does not tend to subside on its own, is a form of localized rheumatism. Countless treatments have been tried and generally rejected as useless, the failure lying in their localized and inadequate remedial properties. This shortcoming is also true of the recent experiments with peritendinous injections of hydrocortisone. As far back as 1936, I have made it my goal to discover what causes

this affliction. The credit for putting me on the right track goes to my friend Jack Lovelock — then a medical student — who told me that his bout with tendinitis was cured following the extraction of two devitalized teeth and a series of inoculations with vaccines derived from the matter secreted by the small abcess on the infected root. It had already been determined, at that time, that any infection, while seemingly localized, could become a health hazard and it was recommended that such « minor infections » be promptly tended to. However this theory fell on partially deaf ears and had but little influence in the field of therapy. It was only in 1939, three years after my first experiments, that Wolfgang Veil stated in his treatise on rheumatism that: « this ailment, be it in its accute, sub-accute, or chronic stage, has always featured an interrelationship with one of the sources of infection in the body. »

Numerous studies have since revealed that such infected areas generate a generalized illness, a form of intoxication. This «toxicosis» often remains latent and with no specific repercussions: then, either suddenly or progressively, it may provoke the allergic reaction of certain tissues which are more particularly sensitive to the microbial toxins released by the source of infection. Other probes have demonstrated that rheumatic lesions were characterized by granulation tissue originating from small emboli generated by the infected area. When the body resistance is at a low ebb, rheumatism can thus affect the joints, the tiny articular vessels, the retina or any other organ, and — which is more dangerous — the heart's valvulae, the vessels feeding the cardiac muscle — a process leading to the all too frequent infarction.

This distressing description of toxicosis or rheumatic infection fortunately does not apply to the affliction of the athlete. By virtue of his training and more ascetic mode of living, he enjoys a greater resistance and a richer source of energy to draw on than that available to the sedentary individual.

The fact nevertheless remains that an athlete may be afflicted with a dental or tonsilar infection — to quote but the most common — and be wholly unaware of the condition. However the parts of his body which

are subjected to repeated or violent efforts may suddently give as a result of lessened resistance (muscle strain) or he may experience a painful inflammation when the vulnerable arterioles irrigating the peritendinous areas are affected (Achilles tendinitis of the runners, epi-condylitis of the tennis players (tennis arm) or epitrochlear trouble of the javelin throwers).

On the basis of these pathologically sketchy, but easily understandable explanations, one can readily deduce that the local treatment of tendinitis, epicondylitis, or any other similar painful afflictions, will not result in adequate cure so long as the original source of infection remains undetected and hence undeterred. Shortly following the Lovelock experiment, I had a check up: X-ray of my teeth, examination of sinuses, and tonsils. The examination revealed two minor dental infections, one of which was uncovered by a bacteriological analysis of the root. I had one tooth extracted and the other stereilized to the point where a test of the radicular sample produced a negative culture. Ten days later, the two tendinitis which had plagued me for over two years miraculously disappeared. Neither did they recur, even after a 10-km test training over hard surface.

Such was my personal experience and, at the age of 64, I am still running without any sign of tendinitis. Since then, in the capacity of physician, I have treated several thousand patients suffering from various forms of localized rheumatism, or sports mishaps, easily traceable to a given source of infection.

I could cite the case of a large number of athletes, soccer players, etc., who, beleaguered by this painful handicap and on the verge of giving up, suddenly recovered hope with the welcome disappearance of their tendinitis or muscle strain. A number of them even managed an improved performance upon recovery from this type of toxicosis which, even when there was no local flare-up, had stunted their athletic potential.

My report would be incomplete if confined to the determinant role of focal infection. The question of static trouble must be brought up for it is also at the source of wel known pains and may be conducive to tendinitis. I mean by this that an imbalance in the

forces in action — for example a discrepancy in style or technique, or even the improper position of the foot on the ground while walking — may provoke abnormal and repeated tensions and torsions in the ligaments, joints, and tedinous insertions (foot, knee, sacro-lumbar and gluteal areas, shoulder, elbow) and generate what is known as « static » pains.

The most common case is that provoked by the outward rocking of the foot's hinder tarsal support, known as valgus of the heel, and frequently encountered in the walkers, runners, as well as most people in general (over 50%). A static diagram is used determining, within a degree or so, the deviation of the heel's axis. Such imbalance, however unnoticeable it may be, can result in painful weariness and osseous fissures in the metatartus and even the shin-bone. The Luxemburgian champion Norbert Haupert was recently afflicted with such a figure of the shin bone and the great Marathon runner, Aurele Van den Driessche, whom I ran into a while back, was this time suffering not from actual tendinitis, but from a pain occasioned by an exostosis on the calcaneus generated by a neglected calcaneal valgus.

In short, while it is easy to remedy static trouble of plantar origin by a judicious raising of the inner side of the shoe heel (4 to 5 mm as a rule) — the small heel of long-distance racing shoes should also be thusly adjusted — it is often much more difficult to detect the source of infection and combat it effectively. A dead tooth, with an infected radicular canal, is never painful and does not always reveal granuloma on an X-ray. Thorough technique is required to make a culture of the radicular specimen which, if determined positive, will determine whether the tooth can be salvaged by treatment or should be extracted. This is particularly true of molar teeth with several roots. It is also delicate to unerringly diagnose whether the tonsils are infected or not. However, in the case of a tonsilitis history — even dating back to early childhood — the tonsils remain infected and warrant total removal.

In support of this assertion, I shall cite the case of a heavy athlete, a truck driver who suddenly contracted a bilateral neuritis of the arms, which entailed a loss of strength such as to forbid further driving. The patient had suffered from tonsilitis at the age of 7, an illness which remained imprinted in his memory because the intensive salycilate treatment he underwent on this occasion had caused his ears to ring. He had never been sick since. This patient had neither devitalized teeth, nor pyorrhea, either of which can also provoke toxicosis. I prescribed the removal of his tonsils and testing by the Bacterilogical and pathological anatomy labs. Both analyses revealed a small, latent, encysted infection, with presence of still virulent bacteria.

While all other treatments had proven useless, the elimination of these old, but still active infections resulted in speedy recovery and the resumption of training fifteen days after the operation.

I can therefore conclude that sports training is a means of detecting the presence of toxicosis and this by inducing a localized affliction, such as tendinitis. While often merely demoralizing in the case of athletes, this ailment may eventually become much more severe in sedentary patients who suffer a sudden or gradual loss of resistance due to an intercurrent disease and age, and in whose case a benign affliction like toxicosis degenerates into considerably more dangerous and often fatal ailments such as cardiac infarctus.

I therefore believe that the medical check up of an athlete should include tests for possible sources of infection; I also recommend the removal of tonsils for those having once contracted tonsilitis. Another warning is to avoid all dental devitalization which too often leads to the infection of the roots; I extract devitalized molars displaying granuloma; perform a bacteriological test in case of doubt; attempt to sterilize one-root teeth, when such root is infected; to make a long story short, ensure that the teeth are in perfect shape, and free of infection. Blood testing is generally not conclusive in this respect.

Corrective action with respect to static trouble is much simpler; such trouble must, however, be detected by first taking a foot print and then establishing a static diagram thereof.

ACADEMIE

The new airborne sit-up

by Major Fred C. BERRY, Jr., Stanford, California

A paratrooper making a jump launches himself from a calm airplane fuselage into tumultuous air that tugs at his arms and legs and tries to somersault him. While he's buffeted by the propwash, his parachute blooms with a solid thump that sends a whiplash down the lines to the jumper's body.

After the opening shock, the jumper relaxes in the 'chute harness, saving energy for the impact with the earth that's rising to meet him like an 18-foot-persecond elevator. The paratrooper is able to absorb the pounding of the propwash, the opening shock, and the ground because of his intensive training and excellent physical condition.

The state of his abdominal muscles is vitally important in both his conditioning and training programs. Every day in training he snaps into the exit body position hundreds of times. The coiling of his body into the required lower-case « f » position soon becomes second nature to him. He practices landings as much as exits, leaping from a four-foot platform and twisting his body through the ground impact. The abdominal muscles twist the torso, keeping the elbows, shoulders, and head from digging divots.

This was one of the five physical fitness tests required of all soldiers for airborne training. In late 1962 the Airborne Department at the U.S. Army Infantry School decided to study the validity of its 20-year-old fitness battery. One of the first casualties of that fourmonth study was the old situp.

Up until recent years the traditional Army situp test for abdominal fitness consisted of holding a man's

Like last year's World Series tickets, the old situp had little value. The hip flexor muscles, not the abdominal muscles, did the heavy work of lifting the torso. This happened because the feet were held and the legs were stretched out. When the man started his torso upward, the hip flexors worked first and then kept doing the heavier share of the work. The abdominal muscles hitch-hiked.

The two-minute time limit also defeated the situp's purpose. Most men soon learned to bounce their shoulders off the ground as they leaned back to the starting position, thus giving themselves a boost for the upward drive. With a good bounce and a strong hip flexor pull, a man could easily do 34 situps in two minutes. That was supposed to indicate that his

somersault him.

h, his parachute
a whiplash down

feet while he bobbed his torso up and down. To get
a passing score, the man had to do 34 situps in two
minutes.

This was one of the five physical fitness tests required

 $^{(^\}star)$ Major Fred C. Berry. Jr., conducted the study that led to the adoption of this situp by the Army. His opinions do not purport to be the official position of the Department of the Army.

abdominals were in good shape. His actual abdominal condition was not measured.

Following the Airborne Dept. study, a new situp exercise was adopted in early 1963. This replacement filled the bill both as a test of the abdominals and as a developer of this muscle group.

The key to the new situp is the starting position. The man reclines, knees flexed, with his feet flat on the ground. His hands are clasped behind his head, and stay there throughout. On the first count, he raises his torso, bringing his head even with his knees. On the second count, he returns to the starting position, relaxes briefly, and begins the next situp. The exercise is done in a slow cadence, with no time limit.

MUST DO 20

A prospective paratrooper must do 20 of these new situps to be accepted for airborne training. Once accepted into the three-week airborne course, the student does the situp every day, at the morning work-

out. The daily dose begins with the basic requirement of 20, and builds to 30 by the end of the course. Since most of the trainees are young men, they soon adapt to the new situp, and feel the results immediately.

The airborne situp may be a little tough for an older man, or an out-of-shape younger fellow. Though it's one of the situps now recommended by the President's Council on Physical Fitness, it appears in the two highest levels of the five-level program. Anyone using the airborne situp for the first time should start slowly, trying to do only 10 repetitions a day for the first week.

If 10 repetitions are too hard, the starting position should be slightly changed. The performer should be instructed to keep his hands on his chest instead of behind his head. Once he can do 10 repetitions this way, he can again clasp the hands behind the head.

Neither accountants nor athletes are blasted with propwash and a parachute's opening shock. But they still need fit abdominal muscles. They can use the airborne situp as profitably as the paratrooper.

