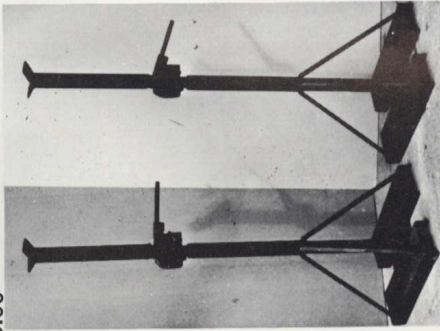


SUPER DELUXE CROSSOVER UNIT

Only \$325.00
Comparable to others selling for \$1,200.00. We use no wear, no lubricating pulleys: Ball bearing revolvable. Fastens to floor and connected at the top. Complete with cable, clamps, hooks and handles. Also available with 55 lb. stacks at \$418.00

WALL PULLEYS - (not pictured)
Now available at \$125.00

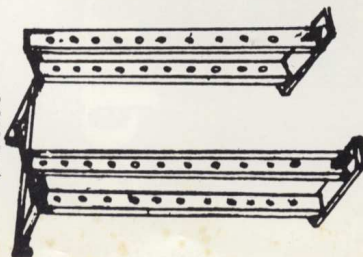


MIGHTY BRUTE JACK RACKS
Only \$150.00 pr.

REGULAR JACK STANDS
(not pictured)
\$100.00 pr.



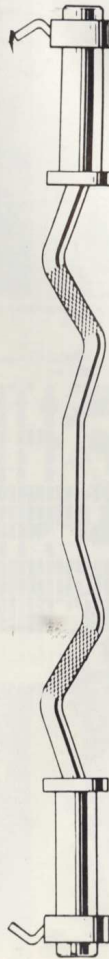
SUPER DELUXE COMPETITION PRONE BENCH
\$100.00



SUPER DELUXE COMPETITION PRONE BENCH W/ JACKSTANDS (not pictured)
\$155.00

POWER RACK

Constructed of heavy channel iron, pins every 4 inches. On ours we use 1 inch pins, unit comes with 4 pins. Anchor to wall and floor. 8' high.



CHROME PLATED and KNURLED OLYMPIC E-Z CURL BAR Only \$60.00

SEND FOR FREE LITERATURE TODAY

JUBINVILLE HEALTH EQUIPMENT - P.O. Box 662 • Holyoke, MA 01041

MAGNA-BOL™

(previously Pow-R-Bol)

“NATURALLY... THERE'S AN ALTERNATIVE TO CHEMICALS”

Magna-Bol™ is a pure herb that helps convert testosterone to hydro-testosterone, which is the form of testosterone that the muscles utilize.

**Essential for: POWERLIFTERS
BODYBUILDERS
WEIGHTLIFTERS**

**MAXIMIZE YOUR TRAINING WITH MAGNA-BOL™
— THE NATURAL ALTERNATIVE**
A PRODUCT OF

marathon™

Name: _____
Address: _____
City _____ State _____ Zip _____
Check or Money Order must accompany orders.
Overseas orders add 20%. Calif. Residents add 6% Sales Tax.
Use MasterCard, Visa, Money Order or Check
 Master Charge Visa
Card No. _____
Expiration Date _____

PLEASE SEND ME THE FOLLOWING:

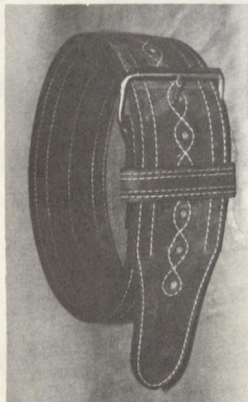
SIZE	QTY.	PRICE	EXT.
100		\$17.00	
250		\$36.00	
500		\$65.00	
			TOTAL

marathon™ NUTRITION
1229 Via Landeta, Palos Verdes Estates, CA 90274
Phone: (213) 519-7111/375-3802

COPYRIGHT MARATHON DISTRIBUTING CO. - 1981

BOB'S CUSTOM LIFTING BELTS

ORIGINAL Designer of Suede Powerbelts

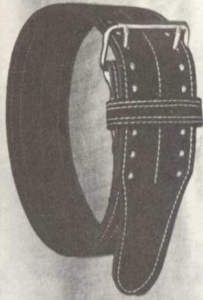


Style (A) Deluxe Suede Covered belt with stitching twice around belt, once down center, and around holes.....\$75.00

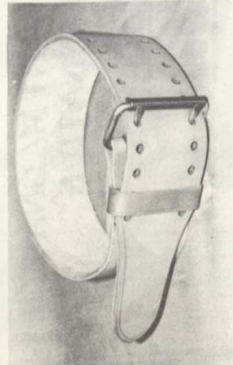


Heavier Buckle with Roller

Any Color of Suede



Style (B) Suede Covered belt has stitching twice around belt and once down center. Double row of holes.....\$75.00



Style (D) Single thickness belt with double row of holes...\$30.00



Style (C) Double thickness belt has stitching once around belt, down center and around holes...\$60.00

'Two Tone' \$75.00

FINEST in QUALITY

PLEASE STATE SIZE, STYLE, COLOR CHOICE

Name _____ MASTERCHARGE _____
 Address _____ BANKAMERICARD/VISA _____
 City _____ State _____ ZIP _____ Acct. No. _____
 Style _____ Size _____ Phone _____ Exp. Date _____
 Color _____ 2nd Choice _____ Signature _____

BOB'S CUSTOM LIFTING BELTS
 197 SAN LORENZO ST.
 POMONA, CALIFORNIA 91766

NEW ADDRESS!!!
 714-620-8957

Powerlifting-USA

Post Office Box 467
 Camarillo, CA 93011

EDITOR-IN-CHIEF Mike Lambert
 INTERNATIONAL EDITOR Tony Fitton
 FEATURE EDITOR Dr. Ken Leistner
 TRAINING EDITOR Ron Fernando
 RESEARCH EDITOR Dr. Tom McLaughlin
 SUBSCRIPTION SERVICES Jean Lambert
 STATISTICIAN Herb Glosbrenner
 PUBLISHER Mike Lambert

...the most important people in the production of this publication are the many hundreds of lifters, fans, meet directors, advertisers, and administrators who have made enormous contributions to its success...through their own love for the sport...this is their magazine.

POWERLIFTING USA (ISSN 0199-4536) is published monthly for \$15 per year. The office of publication is 863 LEMON DRIVE, CAMARILLO, CA 93011 2nd class postage paid at Camarillo, CA 93011

POSTMASTER: Send change of address notices and undeliverable copies to POWERLIFTING USA, Box 467, Camarillo, California 93011

Subscription rates: (US funds only)
 USA & CANADA, 1 yr.....\$15.00 US
 USA & CANADA, 2 yr.....\$28.50 US
 Foreign, Surface Mail...\$24.00 US
 Foreign, Air Mail.....\$32.00 US

MEMBER
COSSYVAPE
 COMMITTEE OF SMALL MAGAZINE EDITORS AND PUBLISHERS
 BOX 763 SAN FRANCISCO, CA. 94101

CONTENTS

VOLUME 5, NUMBER 6
 DECEMBER, 1981

1981 WORLD CHAMPIONSHIPS.....Mike Lambert.....7
 SCORECARD.....Jean Lambert.....8
 IPF CONGRESS MINUTES.....11
 THE 'RIGHT' TRAINING ROUTINE.....Cliff Grubbs.....19
 CLYDE WRIGHT.....Willie Morris.....22
 BIOMECHANICS OF POWERLIFTING
 Dr. Tom McLaughlin.....25
 NATIONAL/WORLD MASTERS REPORT...Mike Lambert...27
 WOMEN'S QUALIFYING TOTALS.....30
 MORE FROM KEN LEISTNER...Dr. Ken Leistner.....32
 TOP 100 LIGHTWEIGHTS.....Jean Lambert.....33
 WHO'S WHO IN POWERLIFTING.....37
 DYNAMICS OF THE DEADLIFT...Pete Vuono.....44
 PSYCHOLOGICAL ASPECTS OF POWERLIFTING
 Dr. Jud Biasiotto and Dr. Ed Ritter.....50
 STUDY OF CHAMPION SQUAT STYLES...Ron Fernando...53
 NUTRITION CORNER.....Jack Digangi, R.D.....57
 NATIONAL QUALIFYING TOTALS.....61
 COMING EVENTS.....63
 CLASSIFIED ADS.....65

Reproduction of this magazine, in whole or part, is prohibited without written consent.

Opinions expressed are those of the writer only, and may or may not be in agreement with PL USA.
 ON THE COVER...impressive venue for the 11th World Powerlifting Championships, Netaji Stadium in Calcutta, India
 NEXT MONTH...a look at the unique history and training philosophy of Juniors Superheavyweight Champ, Jay Piekut.

POWERLIFTING USA advertising rates available upon your request.

POWERLIFTING USA Magazine

ALL PURPOSE SUBSCRIPTION FORM

YES!

SIGN ME UP!

Check one:

Name _____

Address _____

City _____

State _____

Zip _____

\$15.00 for 12 monthly issues, 2 years--\$28.50

Payable to 'POWERLIFTING USA', Box 467, Camarillo, California, 93011

Power Suit TEN shines at Women's Worlds

Power Suit Ten

T.M.

By Strong-Lon of California
17511 Roscoe Boulevard
Northridge, California 91325
(213) 343-4821

WANDA SANDER
WICKY GAGNE
4 OTHERS ON
U.S. TEAM

BEV FRANCIS
SUE ROBERTS
GAEL MULHALL
6 OTHERS ON
AUSSIE TEAM

(Proven at International and National Competitions)

Scientifically Designed for: More Support -

Easy On - Easier Off - Greater Comfort - Wider Straps
Worlds Thickest - Strongest Material

- Help increase your Squat - Deadlift and Total - \$75.00
- You can wear a (body size) Strong-Lon Power Suit
- For a Better Fit - Greater Performance - More Comfort.

A Special Design for Women

Original Patented Design and Material

Strongest Powerlifting Suit Material in the World
The Greatest Body Support Ever
No Hurt Straps and Leg Seams

No other like it in the world (Do not accept substitutes)
Available in Sizes: 24-26-28-30-32-34-36-38-40-42

Orders processed same day as received

Name _____
Address _____
City _____ State _____ Zip _____

Cashiers Check or Money Order must accompany orders.
*Overseas orders add 20%

Strong-Lon of California
17511 Roscoe Boulevard
Northridge, California 91325
(213) 343-4821

1981 WORLD POWERLIFTING CHAMPIONSHIPS

What was it like? ...a World Powerlifting Championship in India is a notion that might have been unthinkable to some only a few years before, but now it has come and gone, its reality is definite and its memory will be one that lasts for decades. The hardships of travel and maintenance of the semblance of normal existence in a foreign land were factors that affected most of the competitors. But the experience of India, and the fine Championship presentation served to broaden the outlook of all the participants and more deeply bond the allegiance of lifters and officials from many nations to the sport of Powerlifting.

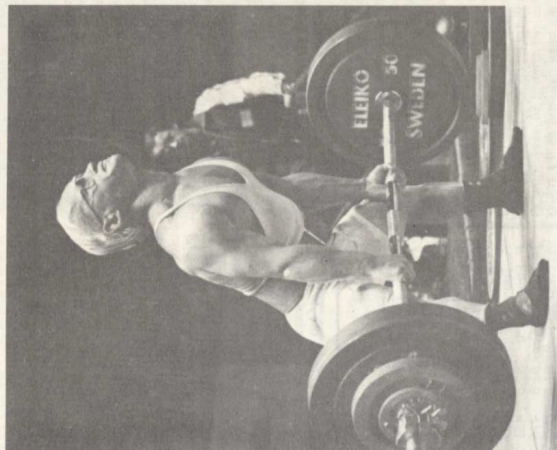
For the American lifters, it was a journey that unfortunately maximized the effects of "jet lag" with bright, cloudless daylight of Calcutta. The "Western" hotels of Calcutta offered cuisine that was passably familiar, but offering little defense against the various intestinal ravages (Mahatma Gandhi's Revenge?) that, sooner or later, plagued most members of the American contingent. Some sampled the local Indian foods and found them mildly spicy and most imbibed heavily of the local soft drinks ("Campa Cola," "Limca," etc.) from the Biji Grill stands and other vendors. Indian yoghurt and sweets (rasagolla) were found to be very tasty delicacies as well.

The Indian people were very enthusiastic fans of the sport, despite

its relative infancy in the nation, and were found to be extremely polite and friendly people in general. English is taught as a primary language in many of the schools, and most of the people were fluent in English, Hindi, and Bengali or the language of their particular region or state of India. The people are a blend of several stocks, many of distinctly Western origin, and some even sporting uniquely British waxed moustaches (wonderfully disconcerting on a rickshaw driver, for example). Most of the women wore very beautiful saris and much jewelry, while many of the men were smartly attired in sport shirts and slacks.

Calcutta created its own special memories. It is heavily overcrowded, having not yet recovered from the beat of the refugees from Bangladesh, and traffic, road conditions, sanitation, distribution of electricity, and other contributions reflect the general serenity and peace of the region. It is a relatively young metropolis, but it still offers a bit of history, the intriguing tourist, Kalighat temple, the National Zoo (Tigers including White ones, that were like horses), Birla Planetarium, the classical reproduction of British architecture represented by the Victoria Memorial, were a few of the sights seen by many of Powerlifting's best. A religious holiday of some note took place during the Championships, and 75,000 Indians visited the Jagadhatri Puja Pandals in

nearby Chandernagore, a spectacle of spinning lights and huge, ornately decorated religious figures, and symbolic immersions. As an American, it was unnerveing to see the Hammer and Sickle tattooed on walls in some of the outlying areas, but the Indians are heavily committed to democracy and Marxists, as a result, have a voice in several Indian states. It's a bit of backhanded romance, I found the experience of purchasing a ride on the train station to my hotel at 2 o'clock in the morning, but the rates whose rates were "controlled" by the government' to be a definitely capitalistic



Tuomisto showed he can do well in each of the competitive lifts. encounter, in the highest tradition of supply and demand. As a host nation, the Indians were most generous, even inviting the visitors to their homes, offering gifts and very excellent tea. Some of the American lifters took advantage of the trip to visit other parts of the Indian Sub-continent; Walter and Jill Thomas traveled to Punjab State afterwards, while Jim Cash ventured into Katmandu and Nepal. Certainly it was the kind of trip that will be remembered in all its exotic detail for long, long years to come.

The Championships... it was a brilliantly orchestrated effort by Mr. Manjit Bose, Secretary General of the Indian Powerlifting Federation and what was literally an army of supporters. The venue was fantastic. Netaji Stadium is a large, modern, well air conditioned multi-purpose sports arena which was more than adequate for the 3-5,000 fans that appeared daily. Facilities for the competitors were also quite convenient with scale warmup facilities, changing rooms, etc. only steps away from the very adequate lifting platform and very large scoreboard.

The opening ceremonies were beautifully done, incorporating a lyrical Indian folk dance, a procession of the national flag, and national march-by for each nation represented, and suitable statements by the dignitaries present. Indian television was present and presented much of the Championships live in prime time. The red carpet was literally rolled out for various State dignitaries and battalions of Boy Scouts and police organization maintained



The total lineup of all the national teams following the individual parade march by was impressive



The 114ers...Stringer, Inaba, Ericsson, Tuomisto, Cairns, Dunbar, MacVicar, Yasোধara line up for introductions on the stage.

Chuckie's adrenalin going. Both of them put in high quality totals and took uncomfortably close shots at Chuckie's 2nd place medal, after dealing with each other. Both showed fine balance in their lifting and the kind of quality deadlifting that we all know Bhairo would take with him to the next division. Stringer showed more fire than usual and Tuomisto showed more craft in the selection of his punches. The Finns and the Britishers were very serious about the team standings this year, and their smart performances throughout brought out the best in team competition. Donnie MacVicar could have used the bench press room he exhibited at the not too long ago World

points all the way down the line. 1st place was once again the domain of Japan's Hideaki Inaba, who picked up his 8th consecutive World Championship title. One more name will be Larry Pacifico for the most World titles and with one more to go.

It was a real treat to see the figure after that he will become the most successful lifter in the world stands who far above the level of most of his competitors, the records are not coming so fast now as they once did, as the results clearly show, fully 100 of his attempts on the platform did not succumb to that broad inaba grin, the explosive verbal pre-lift ritual, and lean musculature. Perhaps the other flyweights of the world may, as a group, be slowly gaining on this gentle soldier of power, but he should have a Championship ring for each of ten liftings before he ever tastes defeat. Inaba's language barrier seemed to spring quite a few leaks, as he got on well with several nationalities of PL people and smilingly assisted the other Japanese lifters with their platform efforts.

Chuck Dunbar once again assaulted the Mt. Fuji of Powerlifting, and once again came in a respectable 2nd. Chuck is constrained to perform with incredible brilliance beyond his already well-known proficiency in the squat and bench press if he is to ever defeat the balanced attack of Inaba, and this pressure plus the rigors of travel led to troubles in the squat. In the bench he got them all, but did not end up at the level he needed. Almost immediately after his final bench attempt, he was called out for his opening deadlift, a situation which was made known, loud and clear, to the IPF officials by Jan Todd, who felt it was an unfair and unsafe practice. Chuckie's miss was followed, happily, by a success at 363, but he could manage no more. Chuck's disappointment in his performance was written on his face, but he plans to write this year off and go for it in 1982. He was interested in the recent lifting of Joe Cunha in this division, and perhaps these two can drive each other past the 1200 barrier and into Inaba's territory.

If our man Joe can't supply the incentive, then the lifting of Inaba and Tuomisto could get

ScoreCard

5-8 November 1981		Netaji Stadium		Calcutta, India								
52 kg/114 lb	BWT	SQ1	SQ2	SQ3	BP1	BP2	BP3	SUB	DL1	DL2	DL3	TOT
H. Inaba(Jap)	51.7	485	507	510	242	253	259	760	473	496	511	1284
A. Tuomisto(Fin)	51.0	479	507	507	286	297	308	788	363	369	369	1151
C. Stringer(GB)	51.5	429	446	451	242	253	253	699	413	435	457	1135
P. MacVicar(USA)	51.6	418	440	451	259	270	272	738	374	396	418	1135
A. Ericsson(Sue)	51.5	385	396	385	253	264	264	661	396	440	440	1058
P. Yasোধara(Ind)	52.0	313	329	313	209	209	209	639	407	440	440	1047
P. Yasোধara(Ind)	51.6	352	374	385	187	203	209	595	429	440	440	1036
56 kg/123 lb	BWT	SQ1	SQ2	SQ3	BP1	BP2	BP3	SUB	DL1	DL2	DL3	TOT
N. Bhairo(GB)	55.6	473	496	496	264	275	281	777	462	496	496	1240
Y. Haatanen(Fin)	55.8	429	451	462	264	275	281	716	473	496	496	1212
E. Milani(USA)	55.6	413	440	440	237	246	253	667	485	507	507	1146
P. Joseph(Ind)	55.7	418	429	429	203	214	214	644	485	507	507	1146
T. Kudo(Jap)	55.5	429	440	440	220	242	248	677	418	440	457	1135
S. Karath(Ind)	55.5	374	407	418	226	237	242	650	440	462	473	1124
L. Skeani(Aus)	53.6	330	352	352	209	226	231	556	418	440	440	975
60 kg/132 lb	BWT	SQ1	SQ2	SQ3	BP1	BP2	BP3	SUB	DL1	DL2	DL3	TOT
H. Isogawa(Jap)	56	440	462	473	308	325	330	799	451	473	485	1273
L. Genti(USA)	59.5	451	501	501	292	319	319	771	507	562	606	1377
T. Dalver(GB)	58.5	507	534	545	259	270	286	815	496	518	560	1333
S. Kar(GB)	59.9	363	394	407	231	231	231	694	407	462	462	1157
P. Kangas(Fin)	60	418	440	440	232	248	248	705	407	429	429	1135
H. Hattori(Jap)	59.6	409	429	429	237	248	248	667	440	468	468	1135
67.5 kg/148 lb	BWT	SQ1	SQ2	SQ3	BP1	BP2	BP3	SUB	DL1	DL2	DL3	TOT
K. Lampela(Fin)	58.6	440	451	462	231	242	253	705	507	606	606	1212
E. Pengelly(GB)	67	551	584	584	308	347	347	931	573	595	622	1554
S. Nentis(Sue)	67.4	573	599	599	319	330	341	914	578	617	617	1529
I. Karunen(Fin)	67.5	507	529	545	308	326	326	854	551	584	606	1438
P. Huttala(Fin)	67	509	529	545	347	366	366	929	540	560	560	1416
L. Pedras(Sui)	67.2	485	507	518	259	275	281	799	573	595	606	1394
S. Colerai(USA)	66.2	529	551	551	259	270	281	832	485	529	529	1317
T. Kohlgut(Jap)	66.7	490	540	540	231	248	248	788	485	485	485	1273
G. Hansold(USA)	67.1	540	540	540	231	248	248	788	485	485	485	1273
75 kg/165 lb	BWT	SQ1	SQ2	SQ3	BP1	BP2	BP3	SUB	DL1	DL2	DL3	TOT
J. Bradley(USA)	67	551	611	666	374	418	424	1036	551	578	614	1614
S. Alexander(GB)	74.6	595	617	617	369	385	399	1003	628	644	655	1658
L. Beckstrand(Sue)	74.1	529	545	545	418	440	440	1014	600	600	600	1514
B. O'Connell(USA)	74.0	595	611	611	374	418	424	1036	551	578	614	1614
S. Waddell(USA)	74.0	595	611	611	374	418	424	1036	551	578	614	1614
W. Lamp(USA)	75	584	606	606	319	330	341	907	595	606	606	1493
K. Skjaba(Nor)	74.5	556	568	568	308	319	326	887	584	584	584	1466
O. Wilken(Nor)	74.5	529	551	562	297	314	314	876	584	606	606	1466
P. Delphin(Fr)	73.4	440	440	440	276	286	297	738	529	562	562	1284
M. Hillier(Fr)	73.6	402	424	440	240	264	264	755	485	507	507	1278
V. Eiji(Jap)	72.2	485	496	496	308	330	330	886	485	507	507	1284
S. Maiti(Ind)	71.5	451	466	466	308	326	330	782	462	462	462	1245
B. Martin(NZ)	74.6	540	562	562	242	253	253	716	462	485	485	1201

got it officially (only to lose it later in the Championship). A jump to 330 seemed logical and almost conservative, in light of the ease with which he had dispatched the previous poundage, but it came up only a fraction and quickly crashed back down on Hiro's muscular chest. With a 22 pound subtotal lead over Bhairo, Hiro deadlifted carefully and smartly, and didn't miss his 485 final by much.

Meanwhile, Mr. Bhairo was also producing a series of quality lifts, and actually had the title in his hand. Off his 462 opener, he should have made a better job of the winning 496 deadlift, but both times it barely broke off, the plywood. Although still not a heavy-

Games to place his name in the bronze medal hat, but it wasn't there. Apparently his benching arch, extreme wide grip benching style is as temperamental, if not more so, than the Sumo style in the deadlift. You're either on the mark, or well off it, with little middle ground to be had. Ericsson of Sweden benched nicely, and young Geoff Cairns of New Zealand would claim to have a fine future in this sport with quality efforts in all 3 lifts.

Mr. Yasোধara of India was a line representative of his nation, who understandably, especially during the ecstatic applause from the audience. The Indian lifters were solidly improved overall.

123 lb. class...now that Precious McKenzie has apparently retired and meant it, this division sprung wide open to new possibilities and new faces, and most of them did their best in light of the opportunity. Likable Hiro lagawa, lifting for Japan but training in Los Angeles, started out beautifully in the squats and made all 3. He has bombed out of some meets due to depth problems, but buried all of his squats and made all 3 lifts.

After all others had finished in the bench, he opened at 308 and made it, with the opening ease. A World Record 325 was ordered and loaded on the bar and after being excitedly applauded from the audience. The Indian lifters were solidly improved overall.

Ernie aced 413 the second time he muscled man, he has filled out nicely into this class and with the absence of a Superstar like Gant or McKenzie in the division, his decision to jump up from the 114s may turn out to be most profitable in the years to come.

Yrjo Haatanen of Finland put together six good attempts for a solid 550 kilo total. He set an example that many of the Finns followed: make your second attempt, and minimize the effect of any misses on your final try. Ernie Millan of the United States was disappointed in himself, but lifted better than ever before, but started the trip 8 pounds over the class limit and actually gained 3 more pounds on the plane trip. The weight loss always exacts a toll, and this time Ernie may have finally convinced himself that 123 is not the way for him to go anymore. His first squat was dumped unexpectedly, but repeated with ease, and his big

Bhairo pushed up 3 nice BPs

World Record

82.5 kg/181 lb.	BWT	SQ1	SQ2	SQ3	BP1	BP2	BP3	SUB	DL1	DL2	DL3	TOT
M. Bridges(USA)	82.2	705	760	804	451	523	529	1333	551	749	777	2050
M. Stammers(USA)	82.0	639	683	699	374	385	396	1069	617	650	664	1719
Kumpuniemi(Fin)	81.9	639	683	699	341	352	363	925	683	727	739	1653
K. Nyssonen(Fin)	82.7	639	683	699	341	352	363	925	683	727	739	1653
T. Niks(Jap)	78.6	583	627	643	363	374	385	1080	573	595	606	1543
G. Wells(GB)	81.7	529	551	562	341	352	363	925	606	639	650	1532
Bernesson(Sui)	82.2	551	562	562	314	325	336	851	512	529	539	1460
M. Jose(Ind)	82.4	462	485	490	264	275	286	777	507	529	539	1427
R. Collins(GB)	82.4	462	485	490	264	275	286	777	507	529	539	1427
A. Hobers(Nor)	82.5	462	485	490	264	275	286	777	507	529	539	1427
90 kg/198 lb.	BWT	SQ1	SQ2	SQ3	BP1	BP2	BP3	SUB	DL1	DL2	DL3	TOT
W. Thomas(USA)	89.5	749	771	782	451	485	501	1273	699	749	777	2050
K. Mattison(Sue)	89.5	716	744	766	462	485	501	1229	683	727	727	1912
B. West(GB)	90	600	655	655	380	396	402	1140	694	757	757	1835
Thompson(GB)	89	600	655	655	380	396	402	1140	694	757	757	1835
Thompson(GB)	89	600	655	655	380	396	402	1140	694	757	757	1835
S. G. Burt(NZ)	90	593	630	644	341	352	363	1041	622	639	662	1681
G. Dhillon(Ind)	88	451	473	496	286	303	303	891	617	661	662	1642
S. Henke(WG)	87	466	496	496	286	303	303	891	617	661	662	1642
100 kg/220 lb.	BWT	SQ1	SQ2	SQ3	BP1	BP2	BP3	SUB	DL1	DL2	DL3	TOT
J. Cash(USA)	99	760	810	832	440	467	473	1251	733	782	804	2033
C. Nilsson(Sue)	99.4	727	793	821	429	446	462	1240	661	727	727	1906
T. Stevens(GB)	99.4	727	793	821	429	446	462	1240	661	727	727	1906
R. Eriksen(Nor)	100	617	617	617	385	396	396	1036	595	639	664	1675
D. Dattney(Fr)	100	573	606	644	380	396	396	986	562	595	664	1581
H. Hermulaer(WG)	100	462	485	485	308	330	330	815	529	551	579	1366
R. Yonder(Sue)	99.6	462	485	485	308	330	330	815	529	551	579	1366
110 kg/242 lb.	BWT	SQ1	SQ2	SQ3	BP1	BP2	BP3	SUB	DL1	DL2	DL3	TOT
R. Kivimata(Fin)	109.2	738	771	782	468	479	490	1251	797	777	777	



Hiro Isogawa's victory joy was sweetness that later turned sour. Isogawa of Japan, Lampela of Finland in the 132 lb. division, and Joe Bradley of the United States in the 148 lb. division. These lifters were disqualified by the IPF for drug use which meant that they lose their placings in the World Championship competition, they lose any records that they may have set, and they are to be banned from competing for one year. Upon leaving Calcutta, Mr. Isogawa, the meet promoter, Mr. Manojit Bose, if any lifters in the heavier classes had been identified with positive results, and he indicated that all the results were in and that only the 3 lighter class contestants had shown

positive and been disqualified. At least two of the banned lifters vehemently deny using any form of speed, however the test was for more than just speed, and you may recall that one of our Olympic swimmers was once banned for the use of a prescribed allergy medicine during competition.

132 lb. class...this class was close to a foregone conclusion, as Lamar had absolutely stunned the Powerlifting World with a total in Arlington light years ahead of what anyone had previously done at this weight. But, Lamar was not the



Lamar's 606 was his grand finale lift for another World title

same lifter, as his performance at the Seniors had also shown. His attempts at 501 in the squat were badly missed, and the relatively modest deadlift poundages (modest for Lamar, I mean) were not particularly easy. Still, he was well ahead of his closest competitor, a terrific squarer, with both form and power to spare, and who made solid second attempts in both the bench and deadlift. Lampela lifted solidly for 3rd, but was subsequently disqualified, bringing France its 1st medal in World Powerlifting competition. The French con-

tinued to be very vocal in support of their lifters and very much a team unit. West German lifts looks like a fine prospect for next year, and the two Indian entrants, Kumar, and Jayappa, put on a ferocious battle, teaming identically to the delight of the crowd.

148 lb. class...Joe Bradley had probably thought about or been told by others to get that first attempt squat in at least a thousand times and he made sure of it with some more just to be sure he had the depth before coming up. This type of hesitant descent eliminates the explosion he showed at last year's championships, and kept him from matching what he'd done at the lighter bodyweight (he couldn't complete his final attempt with the 650 he'd made last year), but he made a good 611, which would have been more than



Eddie Pengelly...The Bencher. He's made great improvement

GB coach Leggett had Galvez ready and eager for each lift analysis according to the decision made by the IPF at the 1980 Arlington. Congress to test for anabolic steroids and narcotic analogues at this year's championships. The tests were to be performed in accordance with the International Olympic Committee guidelines. Three lifters were identified as having positive results from the tests,



Joe left 650 c/o the spotters

enough had he passed the drug test. In the squat, Joe really generated a lot of crowd response by leaping up to an astonishing height before each attempt and he kept them going in the bench, especially when he got into World Record City. The first World Record of 418 seemed easy, but the next one of 424 was a near max effort. He just kept driving it and driving it, pushing so hard that control of the bar nearly seemed in question. Back, back, back, and finally up it went. In the deadlift, Joe continued to lift up the crowd, which lifted up his lifing.

A Look Inside the IPF...minutes of the 1981 Congress Meetings in Calcutta, India

MINUTES OF THE IPF CONGRESS HELD AT CALCUTTA, INDIA, ON NOVEMBER 4/81.
The IPF Congress was opened at 9:10 a.m. by President V.L. Mercer. The President welcomed all participants to the Congress and recorded the proceedings of the Congress.

At the outset the President referred to the sad news of the passing away of Roger Powerlifting and as a mark of respect to the departed suggested observance of a minute's silence.

IA. President's address: The President welcomed all and expressed his good wishes not only for a good Congress but also for a successful World Championships. He also expressed his appreciation to the IPF, Gift of equipment to India for 1981 World Championships, Standard application form to join IPF, omission from 1980 members, Men's Records and details concerning World Cup are not correct and the President answered the points.

Welcoming address, Manojit Bose, on behalf of the host country Manojit Bose, the Meet Director of the 1981 World Powerlifting Championships, the President and Office bearers of the IPF, delegates, and the members of the press, all parts of the Globe and expressed his hope that with their valuable cooperation and good wishes the 1981 Championships would be a great success. He thanked them for their confidence and support to the hosts.

If Roll call of Nations and Delegates: The following members and officers were in attendance: Great Britain, G. Elmore, USA, Lyle Schwartz, Sweden, George

but he barely locked out the 578 he needed for the World Record total. Pengelly, after bombing out last year, was taking only careful jumps this year and as a result posted a very fine total. Looking quite muscular and functional, as did most of the British lifters, Eddie went a sensational 8 for 9. Nentis of Sweden was close enough to raise a few hackles. His deadlifting was especially noteworthy. The two Finns, Karvinen and Huitala, battled each other for the next two places, and just behind them Luigi Pedrassi of Switzerland lifted splendidly, missing only a final deadlift. Coleiro of Australia attracted some crowd attention by smacking chalk on his face, and Kohlogi of Japan was watched closely. Apparently, his extreme wide stance requires a bit more spottier assistance than the officials would allow to get up.

165 lb. class...newcomer Steve Alexander looked and lifted great. Hardly erring at all in his lifting performance, he simply took the Championship away from Lars Backlund, who was the logical favorite, but he could manage merely one successful attempt per category. Last year's squat of 650 and deadlift of 617 combined with the identical bench of 418 would have done Lars some good. Another contender, Skully Oskansson of Iceland, stumbled to 3 openers for a total as well. With a upper body ripped apart in a traffic accident, he is forced to make miracles out of only 2 lifts in order to win. His noble attempt served to make the crowd and other lifters even more enamored of his courage and ability. Frank Lamp's very capable son



Lyle Schwartz did commentary for the local Television outlet.

West German delegate suggested that the Treasurer should send a statement to the press on the 1st of January so that they may post off the proposal in time. The USA delegate seconded the proposal and the same was unanimously accepted.
The Treasurer's report with the above 2 amendments was read and seconded by West Germany.

V. Records report: The President said the statement of records as submitted to the Congress should be sent back to lack of and delay in communications and hence requested members to please present their records. All lifters' records were after scrutiny, accepted and the statement of records as presented was unanimously accepted.

Technical committee: No report was received from the Chairman of the Technical committee. The Chairman of the committee reported that the Chief Referee, who occupies the middle position among the 3 referees, is made to change his position in the 1981 World Championships. It was unanimously decided that the Chief Referee's position should be maintained throughout the contest in that particular bodyweight category.

Law and Legislation Committee: No report was received from the Chairman of the Law and Legislation Committee. The Chairman of the committee reported that the Chief Referee, who occupies the middle position among the 3 referees, is made to change his position in the 1981 World Championships. It was unanimously decided that the Chief Referee's position should be maintained throughout the contest in that particular bodyweight category.

Credentialed lifters: No report was received from the Chairman of the committee. The Chairman of the committee reported that the Chief Referee, who occupies the middle position among the 3 referees, is made to change his position in the 1981 World Championships. It was unanimously decided that the Chief Referee's position should be maintained throughout the contest in that particular bodyweight category.



A muscular Steve Alexander

and he was far off the squat performance he posted in Japan, which devastated his chances for a big total. One of Canada's fine hopefuls, Gord Hansold was an unfortunate bomber.

Medical Committee: Dr. Mahabir Singh, Chairman of the Medical Committee, reported that the 1981 Championships, which were also Vice President, W. Bengali and FIMS, submitted a detailed report on the conduct of ampheteramines test. He said that the total cost for this test on all 115 participants would come to about \$300. He also said details of the procedure of the conduct of the ampheteramines and steroids tests.

After a prolonged discussion in which the Treasurer participated, it was unanimously decided that the Chairman and seconded by delegate for Gr. Britain, that there should be a test for anabolic steroids and steroids on all participants in the World Men Powerlifting Championships.

Finance Committee: The USA delegate, Jan Todd, presented the Women's Committee report.

Women's Committee: The USA delegate, Jan Todd, presented the Women's Committee report.

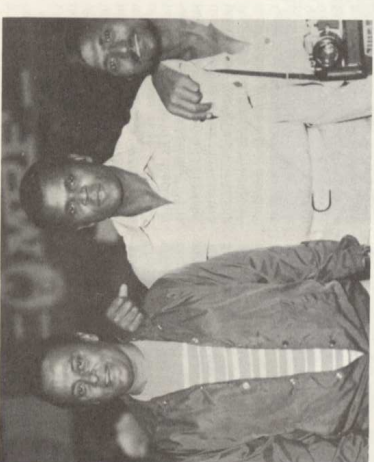
Women's Committee: The USA delegate, Jan Todd, presented the Women's Committee report.

Women's Committee: The USA delegate, Jan Todd, presented the Women's Committee report.

Warren to take the next 2 spots in the class. With a few breaks, Bruce could have moved up a notch, but Warren seems to be the one to watch in the future, as he is very young, very good, and capable of very much more. Kjell Skybak, fresh off a nice performance at the World Masters, was back on the platform only 2 weeks later and half way around the world. Kjell is a real sleeper, a grey haired, balding 30 year old Superhero in a 25 year old's body. Countryman Oddvar Wilken always puts on a good show



Kjell Skybak, Norse Superman



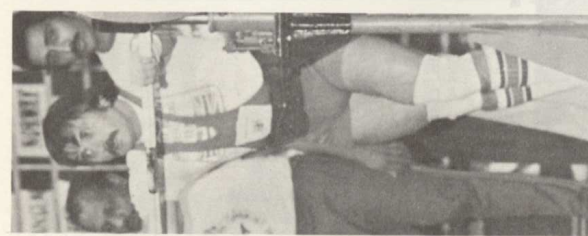
PL Fans...Mr. Bablu Bannerjee, Mr. Serge Nubret, & Mr. A.K. Das

at the Worlds, especially when he makes an attempt, which was quite often on this occasion.

181 lb. class - to this point in the Championships, particularly after the disqualifications, the lifting had been good, but now it was about to become GREAT. Mike Bridges blew away the records and the minds of Indian sports fans. He was quietly assaulted by droves of autograph seekers and people who wanted their picture taken with the Champion of Champions. By virtue of the local television coverage,

tempts were easy, and there was room for more, but rather than waste anything on a 4th attempt he saved his reserves for the final two events. The bench was one record Mike felt rather certain of, and he made his prediction come true, despite having to follow himself, first with a 523 and then a rugged 529 that was much like Bradley's final attempt in terms of the determined drive it gave in to. Mike's make sure opener in the deadlift was followed by a jump of 198 pounds, which proved to be rather taxing. Mike had ideas about a 2100 total, but voluntarily let time run out on his called attempt of 771 so that Veli Kumpuniemi could have a bit of rest. The total was a World Record, in a meet where few could muster even a PR in that category, and won Mike all the accolades he deserved. It was as humbly perfect a performance as you could ask for.

With Bill West migrating up a division, Peter Fiore in Saudi Arabia(?), and Tahminen of Finland in the audience but not lifting, West Germany's Max Stamm took up the slack nicely and bumped up his total with a big new improvement in the squat. He finished well ahead of the Finn, Kumpuniemi, who barely escaped elimination in the squats, but used his renowned deadlift power to knock a counterman out of 6 medal. His try at 798 lb. in the DL was not close, but however, Bury Jouko Nyssonen of Finland remains as good a pro-



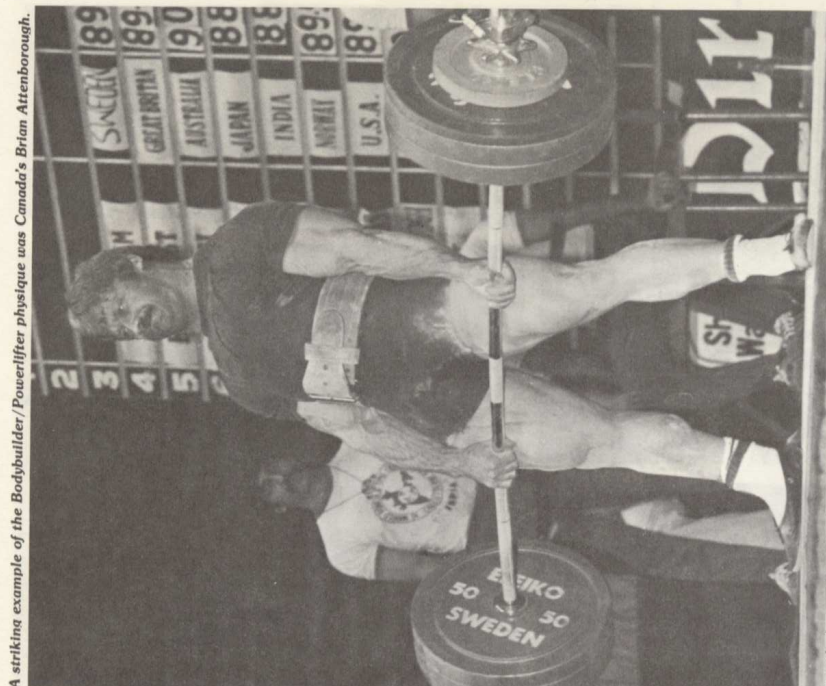
Collins faced the crisis 5 times

1973 Worlds, and like most of his successful team members, he wasted little on the platform.

One of the great names in the history of Powerlifting was also lifting in this class. Ron Collins of Great Britain showed a lot of strength and, in particular, endurance as he had FIVE squat attempts. His opener and subsequent attempts were not passed due to depth problems if my guess is correct. After seeing Ron's attempts and Bridges subsequent efforts, I naturally believed the squats to be over and went out of the stadium in search of a cool soft drink. Upon returning, I was astounded to see Ron preparing to squat once again. Apparently this is how it came about that the Jury had heard the word confusion about whether Ron's opening attempt was good or bad, and they awarded him another 2nd and 3rd attempt. Unfortunately, the story was the same. Ron was moving the weight, but was not getting the depth the judges wanted to see.

on an attempt and they assumed that he had been referring to Ron, when he was actually speaking of another lifter's attempt. Due to confusion about whether Ron's opening attempt was good or bad, they awarded him another 2nd and 3rd attempt. Unfortunately, the story was the same. Ron was moving the weight, but was not getting the depth the judges wanted to see.

198 lb. class...Walter Thomas showed up at a meet looking impossibly big, as if he'd put an inch on each arm, leg, and torso. He was extremely strong. He took a big crowd and his wife Juli also made lots of friends and stirred up interest when it was made known that kind of World Record lifts was capable of. Walter's performance was just awesome. He demonstrated his squats, except for the final one which he just put back in the rack due to dizziness. In the bench he was more than conservative, with some of the American team feeling that he could have done as much as 523, and in the deadlift Walter pulled like we haven't seen him do



A striking example of the Bodybuilder/Powerlifter physique was Canada's Brian Attenborough.

astonished to see Ron preparing to squat once again. Apparently this is how it came about that the Jury had heard the word confusion about whether Ron's opening attempt was good or bad, and they awarded him another 2nd and 3rd attempt. Unfortunately, the story was the same. Ron was moving the weight, but was not getting the depth the judges wanted to see.

198 lb. class...Walter Thomas showed up at a meet looking impossibly big, as if he'd put an inch on each arm, leg, and torso. He was extremely strong. He took a big crowd and his wife Juli also made lots of friends and stirred up interest when it was made known that kind of World Record lifts was capable of. Walter's performance was just awesome. He demonstrated his squats, except for the final one which he just put back in the rack due to dizziness. In the bench he was more than conservative, with some of the American team feeling that he could have done as much as 523, and in the deadlift Walter pulled like we haven't seen him do

astounded to see Ron preparing to squat once again. Apparently this is how it came about that the Jury had heard the word confusion about whether Ron's opening attempt was good or bad, and they awarded him another 2nd and 3rd attempt. Unfortunately, the story was the same. Ron was moving the weight, but was not getting the depth the judges wanted to see.

198 lb. class...Walter Thomas showed up at a meet looking impossibly big, as if he'd put an inch on each arm, leg, and torso. He was extremely strong. He took a big crowd and his wife Juli also made lots of friends and stirred up interest when it was made known that kind of World Record lifts was capable of. Walter's performance was just awesome. He demonstrated his squats, except for the final one which he just put back in the rack due to dizziness. In the bench he was more than conservative, with some of the American team feeling that he could have done as much as 523, and in the deadlift Walter pulled like we haven't seen him do

Astonishing World Records...Bridges rams 523 and then this 529.

to submit his report.

C. Region 4 (America): Though no written report was submitted, the American delegate gave details of many championships conducted at all levels to the President. Powerlifting has been held in that there has been tremendous progress.

D. Region 5 (Pacific): No report had been received.

F. Member Nation Applicants:

1. France: Accepted unanimously and seconded, was accepted unanimously as a member of the IPF.
2. Estonia SSR, after being duly proposed and seconded, was accepted unanimously as a member of the IPF.
3. Saudi Arabia, after being duly proposed and seconded, was accepted unanimously as a member, pending their submitting detailed requirements to the IPF.
4. Letter from Guiana Amateur Physical Culture and Weightlifting Assoc. was considered and it was unanimously decided to accept them as an IB member, pending their submitting details required to the IPF.
5. Change in the name of Bavaria Powerlifting Assoc. to West German PL Association was accepted unanimously. The change was to the name of Dutch Powerlifting Assoc. and it was unanimously decided to accept them as a member, pending their submitting details to the IPF Secretary.

IV. Action on Delinquent Nations: As the new Secretary has yet to work on this matter to consider at the present meeting.

X. Hall of Fame: It was unanimously decided to maintain a Register of the 6 lifter and the 3 officials already admitted to the Hall of Fame for the year 1981.

XI. Future champions: Offers to the conduct of future championships were made and the following were accepted unanimously: Men's Powerlifting Championships: 1982 - in Munich, Germany.

1983:

Gr. Britain: 1984: The delegate from Norway: Commission to withdraw his proposal and the name to be submitted by the Congress.

D) As there was no second to the proposal from Japan, the same was not considered.

E) Other Proposals: The delegate from Gr. Britain suggested acceptance of the 'British Powerlifting' magazine originating from Gr. Britain, copies of which were given to the delegates present at the Congress. The Canadian delegate wanted a change in the name of the magazine to the IPF, and on the acceptance of this proposal, the Canadian delegate proposed the magazine as Official Organ of IPF was accepted unanimously.

Other business: The German delegate proposed that the German Men's Powerlifting championships be held in Munich (Germany) from 4th to 7th Nov, 1982 about venue, arrangements, facilities, sight seeing, banquet, etc. and other matters. The delegate from Canada, all these details to all members and advance. He also added that he would take up the matter with the President and the Secretary.

As regards Amateurism, it was seconded by Canada, the President's decision was unanimously approved. The Secretary appointed Arnold Boatman as Secretary and Green Elmore as Treasurer of IPF was unanimously agreed.

The delegate in charge of the Canadian place on record the valuable service rendered by the former Secretary, Clay Patterson, to the IPF and the Game. Proposed by India, a hearty vote of thanks to the former Secretary and the conduct of the Congress was unanimously accepted with acclamation.



Kenny Matsson could not believe his 307 wasn't passed. 'Big Legs' Maeda missed his big squats but pulled out 5th place anyway, and he was followed by a dense pack of quality lifters.



After he made his 810, Jim Cash had the championship in the bag

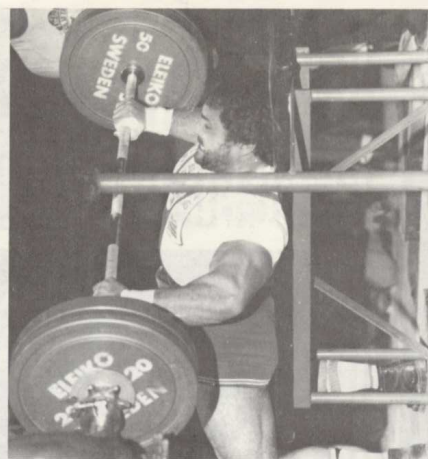


Yvander went plenty low, but couldn't get up with the weight

220 lb. class. Jim Cash was well set for some big lifts coming in to this contest, but felt the effects of the trip to a significant degree. In the squat he did make a nice 810, but the World Record he planned

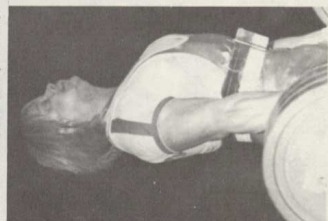


Walter Thomas, working his own quiet terror on the platform iron.



Stevens benched well, but couldn't buy a big squat or deadlift.

on was not there, and in the bench he was quite disappointed with the 440 he managed, but this lift has been troubling him for some time. His 782 deadlift was more than enough to tuck away the title as he was far ahead of any significant competition anyway and some of them were having troubles of their own besides. Physically, Cash was in eye-catching form and he rivaled Bridges for the number of autographs signed, and pictures taken with. Sarge Nubret was present in support of the French team, but I didn't see him sidling up to Jim for any comparison poses, even on an informal basis. Most Indians I talked to simply assumed that Jim was Mr. Universe as well as being a World Powerlifting Champion. Conny Nilsson looked huge at



Nilsson showed overall power

220 and made some nice lifts after a scary start in the squat, which he took over for a minimal success that led him to pass up his third opportunity. Ray Yvander also started out with a high opener, dumped it once abruptly, and was simply not close on his other tries at the weight. Tony Stevens was expected to do quite well at this meet, but was severely limited in his prospects after making only his opener in the squat. Among the subsequent finishers was Heinz Vierthaler, who will be intimately involved with what looks to be a great World Championship in West Germany next year.

242 lb. class. For the first time in the history of the World Powerlifting Championships, the 110 kilo division was won by someone other than an American, but Danny Wohleber did a solid job and came close to keeping the string alive. In the winner's throne sits Reijo Kiviranta, and you have to give him his due. He is very strong, and a balanced lifter. He is widely expected in International competition, and very clever at selecting his poundages. His cool stalking of the Gold Medal was obvious from the beginning, as he made the most of his successes and minimized the misses. He should be a factor next year, as he has barely grown into his class yet. The Finn that most Americans were concerned with, Henri Saarela, may have also been benched, but he has not been just didn't get the lift he needed to open the door for a bodyweight win by Kiviranta. Wohleber started

conservatively in the squat and made both 1st and 2nd attempts in deep and strong fashion. His jump to 854 was not unreasonable, and it turned out to be a very costly 369, as Danny struggled to a mere 843, after an easy opening deadlift. In order to overcome the 2 Finns, he came very close on both tries, but lost his grip



Kiviranta led his nation in the parade march and to a World title.

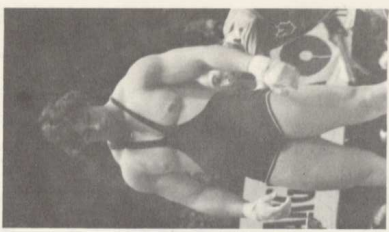


Danny Wohleber was plenty fired up, but the Big 854 wouldn't go near the top each time. Danny didn't do badly, he just found himself in a very sticky situation that he couldn't get out of.

Arthur White was another disappointment for the Brits, ending up with openers only, and missing

most of his other attempts rather badly. Massive Roger Daggett of Canada benched his way into 5th position, and typhoid the very fit look of the heavier Canadian lifters Bolar of India finished 11th, but won the greatest applause from the appreciative onlookers of any Indian competitor. He is a giant compared to most of his countrymen.

275 lb. class. the World Championship debut of this class brought out some commendable



Magee gets looked after by Canadian coach, Bill Jamison

CHRISTMAS SPECIAL

THE YORK OLYMPIC INTERNATIONAL BARBELL SET

Now is the time to take advantage of a wonderful savings opportunity.

Approved for international competition... YORK OLYMPIC SET is especially offered at a Christmas price. If you've been waiting for the perfect barbell set, now is your chance!

310 lb set
299.00
Shipped freight collect

YORK OLYMPIC SET, 310 lbs. includes: Hi-Tensile chrome-vanadium 7 ft. steel bar with revolving collars, two 45 lb., four 10 lb., four 5 lb. and two 2 1/2 lb. olympic plates \$299.45 lb. plates, \$350

YORK OLYMPIC 400 LB. SET - Same as above plus two additional 45 lb. plates, \$350

YORK OLYMPIC 500 LB. SET - Same as above plus two additional 45 lb. plates, \$350

YORK OLYMPIC 600 LB. SET - Same as above plus two additional 45 lb. plates, \$350

YORK OLYMPIC 700 LB. SET - Same as above plus two additional 45 lb. plates, \$350

YORK OLYMPIC 800 LB. SET - Same as above plus two additional 45 lb. plates, \$350

YORK OLYMPIC 900 LB. SET - Same as above plus two additional 45 lb. plates, \$350

YORK OLYMPIC 1000 LB. SET - Same as above plus two additional 45 lb. plates, \$350

YORK OLYMPIC 1100 LB. SET - Same as above plus two additional 45 lb. plates, \$350

YORK OLYMPIC 1200 LB. SET - Same as above plus two additional 45 lb. plates, \$350

YORK OLYMPIC 1300 LB. SET - Same as above plus two additional 45 lb. plates, \$350

YORK OLYMPIC 1400 LB. SET - Same as above plus two additional 45 lb. plates, \$350

YORK OLYMPIC 1500 LB. SET - Same as above plus two additional 45 lb. plates, \$350

YORK OLYMPIC 1600 LB. SET - Same as above plus two additional 45 lb. plates, \$350

YORK OLYMPIC 1700 LB. SET - Same as above plus two additional 45 lb. plates, \$350

YORK OLYMPIC 1800 LB. SET - Same as above plus two additional 45 lb. plates, \$350

YORK OLYMPIC 1900 LB. SET - Same as above plus two additional 45 lb. plates, \$350

check set ordered
 310 lb set
 400 lb set

Name _____
Address _____
City _____ State _____ Zip _____

----- ORDER NOW ----- DONT DELAY -----

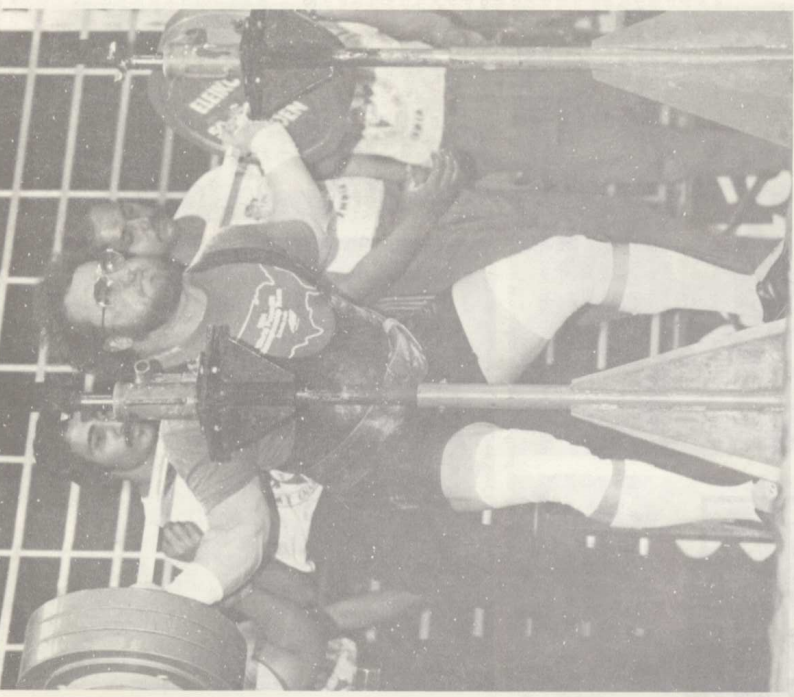
THIS SPECIAL OFFER VALID ONLY ON ORDERS POSTMARKED BY 1/15/82

performers from around the world, and it should be a class that brings lots of glory and interest to the sport in the future. The United States entry, Ernie Hackett, was very ill throughout the contest, dropping from a departure weight of 282 to 259 right after the lifting. For someone who was essentially miserable throughout the trip I thought Ernie came up with a fine performance, though obviously much less than he might/would have done under more personally ideal circumstances. He started low in every lift and made stable jumps, which produced a total that was not threatened by any of the other competitors. Of the other men in the class, Magee was very impressive, doing better than any Canadian has ever done. He is quite tall and almost lanky, but simply tossed the weights around. After several of his attempts blood just erupted from his nose, and this is becoming somewhat of a trademark for him. Several lifters commented that he looks like future World Champion Superheavyweight, his lifts could threaten American domination. 3rd place Sigmarsson of Iceland was a popular lifter, who played it up to the crowd, flashing double biceps poses and taking great, flying leaps off the platform after successful attempts. He got his picture into the paper as a result. Ekstrom of Sweden was really a giant, at least 6 ft. 6 in. and even taller than Magee, and was only bumped out of the medals on bodyweight.



Upscale Pl.....Roger Ekstrom

Superheavyweights as far as in the United States and not elsewhere, and Paul Wrenn's concerns involved other things that might go wrong, but not much did. He rocked up with a big smile and 942 pounds on his second squat attempt, but a move to the big 1003 had him shaking and definitely not smiling before he even took it down. From that point on it was a coast for Paul, and he certainly deserves a break. He spent a fair bit of his training time for this meet in Alaska, catching short-hop flights from one place to another as part of his evangelistic work and has worked long and hard for his moment of World Championship Victory Glory. There were those who felt sorry for Paul in 1979, when after



Ernie Hackett was nearly incapacitated by illness, but held on tight and came out a World Champ

about...He proved them wrong. He won the Seniors in outstanding fashion and backed up that performance with a winning margin at the Worlds of 330 pounds in the total. Andy Kerr was on a PR roll, 75 kilos up on his best squat and 2.5 kg up on his best bench, but apparently on his cool back this was probably did not do the trick of 771, and mysteriously lost the grip. Why he stanned so high and when he could not hold on to the bar with a weight 44 pounds less than his best "shell shocked" Andy strained his groin on his final attempt and won't be training for a while, but feels that this incident will serve to push him on to much greater heights in the future. With Kerr on the sidelines, two Aussies found themselves in the medals, Kapica and Rigby both lifting nicely but off the standards of recent years. Rigby is a former Olympic lifting great, and reminds one of a stretch version of Paul Wrenn. Renzetti of Canada was huge and obviously needs a couple of years under his extra-extra large



1003 on the way down...Paul Wrenn later admitted that he hadn't been quite as strong as he originally thought he was.



From PRs to Personal Disaster for Gt. Britain's Andy Kerr.

winning the Seniors, Kaz was also selected for the team and won the World title. They thought he might never get another chance at the World title, what with Kennedy, Waddington, and Kaz lurking

In summation...The United States won its 10th World Team title by a comfortable margin, while Great Britain nosed out Finland by one point. Several countries showed improvement from previous years, and greater parity between all Powerlifting nations is obviously just around the corner. Congratulations to all 11 World Champions; aside from the blish of the drug test victims, all were well deserving victors. On the United States side, several lifters commented on the good job done by Jan Todd, team manager. Also of interest was the equipment used at the Championship. Eleiko, long of fine reputation in the manufacture of Olympic lifting bars, has come out with a Power Bar. There were some reservations about the light knurling on the bar, but actual grip problems during the lifting were not a tremendous problem and the feedback generated should encourage the Eleiko people to deepen the knurling on subsequent production runs. The Eleiko plates were beautiful, with the poundages right on and the big plates of thin construction so that a lot of weight can be put on the bar. The spotters, loaders, scorekeepers, announcers, and all other people associated with the effort of Mr. Bose did a fine job and should be congratulated.

Everyone is drooling about next year's championships. They will be held in Munich at the Olympic Basketball Hall, with lifting on the 5th-7th of November. NBC has the contract to televise the meet (his year's meet was not televised by a major network, however, Jim Cash had a VCR rolling for the whole show and will be offering cassettes of the contest for sale) and there's a sensational travel package worked out from America to the contest. I'll have details later, but right now it looks like \$880 takes care of air fare out of New York and accommodations in Munich for about a week. I believe at least 100 travelers are necessary to get this rate from Pan Am, but with the interest already being shown in the trip, this number should be obtainable. Few will state that this outing to India was a dream vacation. The majority of people who made the trip had fair to middlin cases of tummy trouble, but I hear that Bill Peart lost 35 pounds on one of his trips to India, so most of the participants didn't have it that bad. Sure, you'll hear tales from those who were there of rats in the alleys and people living in the streets in total poverty, but you'll also hear tales of dancing cobras, of tissue thin silk saris embroidered with golden thread, of sacred cattle sharing a narrow, cobblestone street with a new Mercedes, a dilapidated rickshaw, and a bus packed to overflowing, of endless vistas of richly green ricefields, tales of Sikhs and tales of beggars, stories that none of those who went will ever forget. It was an experience.

1981 National Team Champions

THORBECKE'S

U.S.A.

Now Available after 20 years of Experience and Research

1. THOR WRAPS.....\$15.00
(Guaranteed to last the life of your knees!)
2. THORBECKE'S T-Shirts.....\$8.00
3. VITAMINS - 30 lbs.....\$17.00
4. PROTEIN - 2 lbs.....\$13.50, 4 lbs.....\$25.00

order from: **Thorbeckes, Box 8034, Scottsdale, AZ 85251**

Personalized Powerlifting Routines... 6 months... 1 year
Individual Lift Programs... Squat... Bench... Deadlift
for further information contact:
Bob Calvan, 4633 E. Jones, Phoenix, AZ 85040
(602)-966-9533

Computerized Weightlifting Schedules (CWS)

If you're serious about your training, why not use the best training system available? Personal records are a breeze with CWS so why not let CWS plot a course to that record you've been dreaming about. Just fill out the form below. It will be processed by computer the day it is received, and your printout (telling you every poundage, every set, every rep to do in every exercise of every workout) will be in the mail the next day!

EXERCISES	"M" - "K"	WORKOUT DAYS	EXPERIENCE	MAXIMUM SINGLE
1			Yrs. Mos	
2			Yrs. Mos	
3			Yrs. Mos	
4			Yrs. Mos	
5			Yrs. Mos	
6			Yrs. Mos	
7			Yrs. Mos	
8			Yrs. Mos	
9			Yrs. Mos	
10			Yrs. Mos	

Write the names of the exercises you wish to do

If exercise is to be done on machine leaving only 10 to 15 lbs. to be done only in lbs. leave blank

Write the days of the week that you wish to do the exercise (other than Sunday)

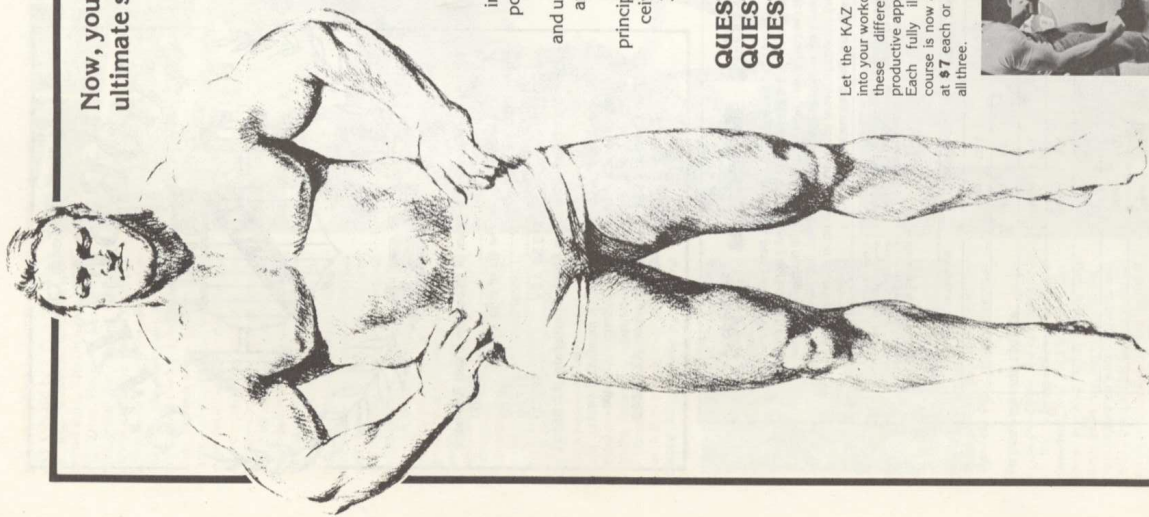
Write the number of years and months you have done this exercise

Write recent maximum exercise to be done in kilograms, enter kilogram single, not lbs.

Name _____ Address _____ City _____ State _____ Zip _____
Age _____ Sex _____ Body Wt. _____ Length of Workout _____ weeks (6 maximum)

I want this schedule to run _____ weeks (6 maximum)

Send check or money order for \$7.95 to:
Rhoades-Alten Computerized Systems
Box 1, Pineknoll Road
Syllester, Ga. 31791



Now, you too can join in the Kaz Quest for ultimate size and power.

BILL KAZMAIER

The World's Strongest Man

introduces
"THE KAZ QUESTS"

In only 5 years Bill Kazmaier has developed such power and physical structure as to be unparalleled in both Body-building and Powerlifting. Ignoring old, possibly outmoded principles, Kaz developed his own unique ideas and philosophies for super strength and unmatched muscular size. Setting himself apart from any other Super-heavyweight or indeed any Strength Athlete that has ever lived. These original training principles are now meticulously described with every conceivable detail explained and reasoned in the following 3 MUSTS for all who are interested in pursuing their ultimate.

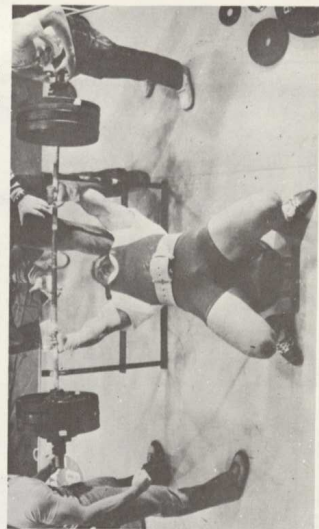
- QUEST 1.....the Bench Press**
- QUEST 2.....Squat and Deadlift**
- QUEST 3.....Gaining Muscular Size and Bulk**

Let the KAZ tradition into your workouts with these different and productive approaches. Each fully illustrated course is now available at \$7 each or \$18 for all three.

order from:

DYNAKAZ
P.O. Box 1974
Auburn, AL 36830

Overseas orders add \$1.00 per course for Airmail postage



TWICE WORLD'S STRONGEST MAN
SNR NATIONAL CHAMPION
WORLD CHAMPION
WORLD RECORD HOLDER
661 - BENCH PRESS
2425 - POWERLIFT TOTAL
DUMBBELL PRESS - PAIR OF 164's

STARTIN' OUT

A special section dedicated to the beginning lifter

The 'Right' Training Routine

by Cliff Granbs

I am a graduate student at North Texas State University working on my MBA in finance, and working at a local health club as an instructor. I have been competing in powerlifting for about a year and a half. In that time I have been able to put 400 lbs. on my total. The reason for my increase was not because I am physically gifted but because I came across a training program that worked well for me. Many lifters are not as lucky and spend a great deal of time before they find a routine that they can make good gains on.

I was training at Doug Patterson's Metro Athletic Club when Bill Starr was working on his second book. Bill set me up on a program that had worked well for many other lifters. At first I was leery to say the least, but I guess the first time anybody sees Bill Starr in person they get the same feeling. Bill is a very knowledgeable man, but his appearance would give Charles McEwen a run for his money.

Bill Starr's program worked well for me with the help of Doug Patterson. I am sure that they saved me years of frustration, but how do you know the average novice lifter go about finding a training routine that works? Well, you could use the old tried and true method of trial and error, and in about 5 or 10 years you will have gone through enough routines to find one that works for you. That is if you don't dismember your body trying those one arm negative deadlifts that your friends friend used to put 100 lbs. on his deadlift in one week. Or, if you have a few bucks and a postage stamp you can send off and get any number of routines out now and they range from heavy singles every workout to computerized ones that are tied to your biorhythms to the more traditional ones that have been around for the last 20 years. You could just hang around the gym long enough and some self professed expert is bound to give you his idea. I think there is some rule left over from the A.A.U. that says you have to keep a few of these guys in your gym along with a few mulllets or you lose your charter.

The average lifter must be careful when trying to use one of the champions.

Errata...Dan Volpe's squat of 639 and total of 1636 from the Boise National should have been listed as Wisconsin. State records in For The Record. Also, on the TOP 123s list we missed Richard Groski's lifts of 400 in the deadlift and 910 in the total as well as Kevin Meskew's 319 squat, 424 deadlift, and 936 total. Sorry 'bout that, folks.

tion's routines because by definition they are not average or they would not be world champions. Most of the world champions have certain physical characteristics that allow them or even force them to train differently than the average lifter. While most of the champions are sincerely trying to help the novice lifter many of their principles just do not hold for the average trainee. One must also take some of the champions advice with a grain of salt. A close friend of one world class lifter told me that the nearest thing that the champion did to sticking to the liquid protein diet he advocated in his seminars was letting his ice cream melt before he ate it. It would seem that there is no sure line source to obtain a program from. However, we can set up guide lines by which we can judge routines that we come across:

1. Find a system that has worked for a number of lifters in the past and odds are you won't do too bad either.
2. Stick to the basics because you need to spend your energy and mental effort on gaining strength, not mastering new auxiliary exercises.
3. Keep it short and remember that overtraining is worse than undertraining.
4. Leave room to fine tune the program over time. The routine that you take you to 350 lbs. may not take you to 350 lbs.
5. Do change your program just for the sake of changing it. If you are making good gains, do not change your routine just because you read about a new workout or the local expert is using a new one.
6. Remember there are no short cuts or miracle routines, no matter which routine you settle on, you must still haul your carcass up to the gym and pay your dues.

The points I have made above may seem almost childishly simple. However, powerlifting is a simple sport, a man against a bar. In conclusion, I would like to say that I believe both of Bill Starr's books 'The Strongest Shall Survive' and 'Defying Gravity' should be required reading for all lifters with less than three years experience.

Christmas Special

DP's (or Diversified Products) Famous 140 kg Olympic Set is now being offered at a special price of \$299.99 (sent freight collect). DP's sets have been used in numerous National Powerlifting Championships and have proven time and again their quality and accuracy. Now is the time for Kilos. Don't you owe yourself the Best?



MC/VISA accepted
WAREHOUSE
5542 SOUTH STREET
LAKEWOOD, CA 90713

213-920-1232

Set Includes 2-20 kg plates, 4-10 kgs, 4-5 kgs, 4-2.5 kgs, and 4 1.25 kgs. 2-2.5 kg collars, and a 20 kg Olympic Bar.

Also Available with Power Bar-\$329.99

BARBELL PLATES!

5-10-25-50-100
 \$.39 per pound

UNMACHINED OLYMPIC PLATES

45 lb. and 100 lb. only
 \$.49 per pound

WELDED COLLAR DUMBBELLS

\$10.00 per pair
 plus \$.39 per pound

Send check or money order to:

PEFFER Athletic Club & Supply

1501 Albright Ave.
Scranton, PA 18508
1-717-342-1253

SUPERWRAP II

"The finest knee wrap available for competition or training"

- 3 Pairs \$18.00 • 2 Pairs \$13.00 • 1 Pair \$7.00 •
- STRONGER • HEAVIER • LONGER LASTING •
- OFFICIAL LENGTH • GREATER STRETCH WITH MORE COMFORT •

SUPERWRAP™ II is the most effective knee wrap in use. Top competitors around the world buy SUPERWRAP™ II to improve squat performance. Another fine value from the MARATHON Distributing Company.

"... add pounds to our SQUAT & TOTAL." Use SUPERWRAP™ AND SAVE \$\$\$!
FREE PAIR OF SUPERWRAP™ II with each Supersuit™ purchased.
 Also... the original SUPERWRAP™ • 3 Pairs \$12.00 • 1 Pair \$5.00
 ...the original heavy duty knee wrap cut to official length

BOB'S Custom Lifting Belts from **marathon**™ Distributing Co.



Style (A) Deluxe Suede Covered belt with stitching twice around belt, once down center, and around holes . . . \$75.00



Style (B) Suede Covered belt has stitching twice around belt and once down center. Double row of holes . . . \$75.00



Style (C) Double thickness belt has stitching once around belt, down center and around holes . . . \$60.00



Style (D) Single thickness belt with double row of holes . . . \$30.00



Training Strap Heavy washable nylon won't stretch. Blue, yellow, green, red. Style 1 . . . \$5.00

IMPORTANT

SUIT SIZE: If you are certain of your suit size, please indicate it in the appropriate color box. If you are not certain, indicate your height and weight, and check the appropriate box for male or female.
 SUIT COLOR: Indicate your 1st, 2nd and 3rd choice of color by numbering the appropriate box.
 BELTS: Indicate waist measurement, style and color preference.

SUPERWRAP™ II

Black Navy Royal Scarlet
 Blue Blue Red

SUPERWRAP™

Natural

Name: _____
 Address: _____
 City _____ State _____ Zip _____

Check, Money Order, MasterCard or Visa must accompany orders.

Card No. _____ Exp. Date _____
 * Overseas orders add 20%. Calif. residents add 6% Sales Tax.

Phone: (213) 519-7111/375-3802
 1229 Via Landeta, Palos Verdes Estates, CA 90274

marathon™ Distributing Company

FREE
 SUPERWRAP™ II

SUPERSUIT™

from
marathon™
 Distributing Company

"SUPERSUIT™ supports powerlifters throughout the world . . . proven in international and national competitions."

More local, state, national, international, and world championships have been won in a SUPERSUIT™ than any other lifting suit."

- The finest POWERLIFTING SUIT AVAILABLE. The famous SUPERSUIT™ by Spanjian is offered in FIVE COLORS. Both models, SUPERSUIT™ II and the SUPERSUIT™ feature, the same design; HIGHER SIDE PANELS and WIDER SHOULDER STRAPS for GREATER BODY SUPPORT in the SQUAT.
- The new Supersuit™ II, with even stronger material is now available in navy blue, royal blue, scarlet red, and black for \$36.00. The original Supersuit™ is available in natural (white) for \$28.00.
- **FREE** Pair of SUPERWRAP™ II with each suit purchased.



MIKE BRIDGES, MULTI-CLASS WORLD CHAMPION "... A POWERLIFTER AHEAD OF HIS TIME."



MARK DIMITRUK
 1980 WORLD CHAMPION



LARRY PACIFICO
 9 TIME WORLD CHAMPION



MARVIN PHILLIPS, 20-TIME WORLD RECORD HOLDER IN THE SQUAT

The best wear Supersuits, so wear the best
 Increase your squat and total with a SUPERSUIT™
 Often imitated — never equalled

- **SUPERSUIT™ II** (Stronger Material)
 Black, Navy Blue, Royal Blue, Scarlet (Red) \$36.00
- **SUPERSUIT™** Natural Color (White) \$28.00
- **SIZES AVAILABLE:** 24, 26, 28, 30, 32, 34, 36, 38, 40, 42, 44, 46, 48

The numbered sized suits give a more accurate fit for greater body support during the squat. Do not accept substitutes.

The MARATHON Co. is the exclusive worldwide source of the Supersuit™ by Spanjian.
 Distributor inquiries on SUPERSUITS™ and SUPERWRAPS™, foreign or domestic, are welcomed.
 Team, school and wholesale discounts also available.

"Champions and record holders TRAIN and WIN with SUPERSUIT™"
 — ORDERS PROCESSED SAME DAY AS RECEIVED . . . IMMEDIATE SHIPMENT —

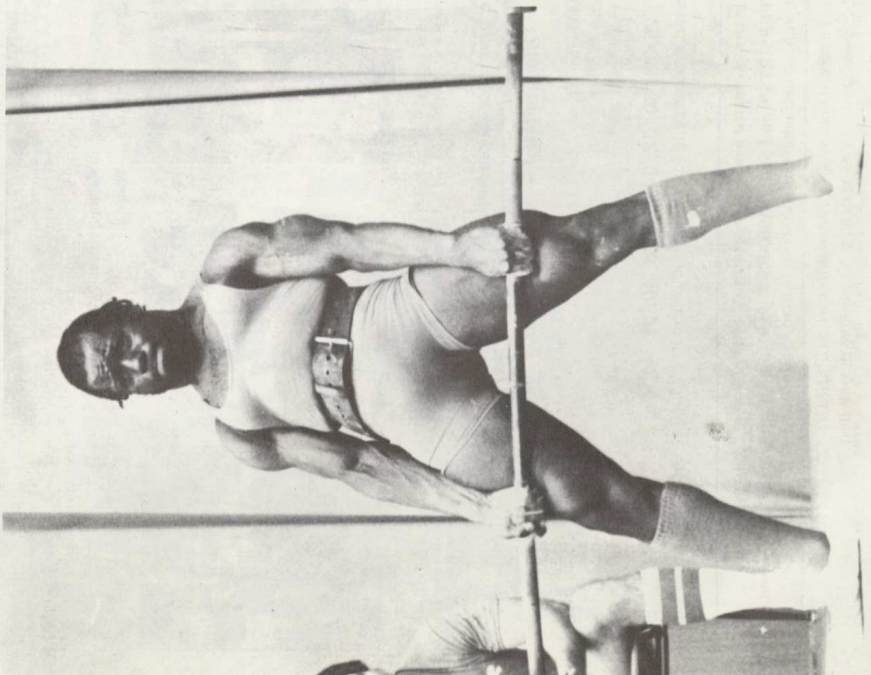
POWER PROFILE

Clyde Wright

by Willie Morris

I got very excited when the idea popped into my head to do a story on Clyde Wright. I would give me a chance to visit the port city of Baltimore, which incidentally was my birth place. It also would give me a chance to visit my best friend (also a powerlifter) Bob Reed, who resides in Pasadena, Md., about 20 minutes from the port city of Baltimore, home of the Colts, Orioles and an awesome individual by the name of Clyde Wright.

I arrived at Clyde's house after numerous long trips, but still at the specified time of 2 p.m. I walked into the house, on the door addressed and phone number of Clyde and was greeted by Clyde's mother, Mrs. Wright. I invited me in to her immaculate living room and informed me that Clyde had a little late getting home. I then took a seat and realized that I was surrounded by Clyde's athletic physique is quite evident when he pulls a deadlift.



a detailed PL USA look at some of the best lifters in the world



Clyde with his award at the World Series of Powerlifting Meet.

trophies; small trophies, big trophies, gigantic trophies, all from previous contests that Clyde had lifted in over the years. Names and places like; Temple Hills, Southern Open, Del-Mar-Va Open, etc... They all had one thing in common, they were all first place, incredible I thought to myself dozens upon dozens of trophies and I found out later there were more downstarts. I continued glancing around the room when the front door opened and in walked the man himself Clyde Wright. We shook hands and Clyde said that he was a little late because of his job, which is incidentally at Pollack Blumes one of the city's biggest furniture stores, if my memory serves me correctly, Clyde works there as a furniture delivery man.

After a few pleasantries Clyde invited me to his basement so we could begin this interview. Clyde has several hundred pounds of weight in his basement plus dozens of more trophies. Between them, Clyde and Iain Burgess could open

up a trophy center. Clyde explained to me that upon occasion he will train in his basement, but prefers to train at the gym with his younger brother Alvin who is fast becoming a force to be reckoned with at 132 lb. class. Clyde, Alvin, and a few friends have formed the 'Day Break' team.

Clyde is 27 years old and has 3 brothers and 6 sisters, is single and has been involved in powerlifting since 1972, when a friend (Earl Gilliam) introduced Clyde to the sport. With very little training Clyde squatted 300 lbs. and benched 165 lbs. in the gym at a bodyweight of 131 lbs.

Today Clyde is one of the biggest and most muscular 148 lb. lifters anywhere, and definitely one of the strongest.

Clyde's best lifts in the gym are simply incredible: a 645 lb. squat, a 370 lb. bench, and a 150 lb. deadlift, all at a 150 lb. bodyweight. The 1981 Seniors turned out to be a disaster for Clyde as he bombed out after 3 unsuccessful attempts on his opening bench press of 336 lbs., after hurting his back with a 600 lb. squat. His best competition lifts are: 606 lb. squat, 355 lb. bench press, and a 606 lb. deadlift.

Clyde virtually trains the year around but the training becomes more intense as he chooses a contest to lift in. Clyde trains five days a week Monday through Friday. A typical week of training would be as follows: starting on Monday Clyde will start his workout with the squat,

after a few warmup sets and some air squats. Clyde will take 245 for a set of 1, 355x3, 425x6, 425x6, 525x5, 585x1, 630x1. After the squat Clyde goes to the bench, after a few warmup sets he takes 225x10, 250x6, 275x6, 308x3, 335x2, 355x1, 370x1. The next workout day is Tuesday and this is the deadlift day for Clyde, using his

customary wide stance, he will do a few warm up sets and then go for 245x10, 335x8, 435x8, 535x6, 635x3, 625x1, 625x1.

Clyde is one of the few lifters I know of who squats 3 times per week. His Monday and Friday squat workouts are similar but on Wednesday his first 3 sets are the same as Monday and Friday but then he goes even heavier doing about 4 singles up to 650 or so. After the deadlift, Clyde will take 90, 225x10, 250x3, 275x3, 300x3, 340x1, 355x2.

Clyde's Thursday workout is pretty much the same as Tuesday with the exception of the pull up to 650 for a single. Clyde's Friday workout is the same as his Monday workout and I must say I found it amazing that anyone could handle this kind of a work load in a week, but he seems to thrive with it. Clyde only uses an 8 week cycle. He feels that due to the fact that he stays in shape all year around, 8 weeks is plenty of time for him to cycle down.

Clyde also oddly enough does not believe in a lot of assistance work, he will do some leg curls, some biceps work (3-4 sets of barbell curls), and some triceps kickbacks while lying on a bench with 70x10, 85x8, 100x6, 115x2, 2, and 125x6. Lastly a few sets of situps after each workout and that is it.

Clyde likes to eat meat 3 times a day, and also take vitamins daily: Vitamin C 3000 mg, a day plus Vitamin E 3000 units a day and a good B complex.

Clyde's career has had it's ups and downs but he says that beyond question the high point in his career was winning the 1979 Seniors, second to that accomplishment, lifting at the 1974 Worlds.

Clyde's squat style is very strict and upright with emphasis on leg power.



Clyde benching at the 1979 Seniors

future is to win a world championship, and then to try and dominate his class for a few years, and then perhaps a move up to the 165 lb. class.

Clyde is very pleased of the way that powerlifting has gained over the years, with television coverage, and he feels that lifters like Lamar Gant, Joe Bradley, Mike Bridges, and Larry Pacifico have really helped promote the sport of powerlifting.

Clyde, on the other hand, feels that any lifter who is good enough to win the Seniors should automatically go to the World Championships. He also feels, as many others do, that TV coverage is not very fair to the lifters in the lighter classes.

Clyde feels the United States will probably be able to dominate powerlifting for another 5 years or so, but after that with the rest of the world getting more and more involved with powerlifting, it will become harder for us to maintain such a domination.

Clyde Wright is a man on fire. He has a burning desire that drives him on toward the ultimate goal of being the very best in the world, a world champion. He is not a man given to bragging, he is but a quiet man who prefers to let his lifting speak for him.

Clyde suffered through a lot of pain, both mentally and physically at the Seniors this past summer. He is no quitter and when next year's Seniors roll around Clyde will be back for another try. With a little luck Clyde could win the most coveted prize in the world of powerlifting, the honor of being a World Champion.

POWERLIFTING
WORLD'S GREATEST SPORT

I AM A POWERLIFTER

BUMPER STICKERS
\$7.50 Each
5/\$3.00 10/\$5.00

Rickey is available for
seminars, demonstrations
and clinics

**The PUMA
WEIGHT
LIFTING
SHOE**

Orange w/Black
Blue w/White



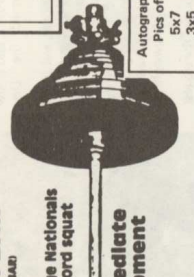
\$90.00
plus \$2.50 postage
and handling
Send Shoe Size

RICKEY DALE CRAIN, 1980 WORLD CHAMPION
CRAIN POWER-PLUS
the TEXAS POWER BAR
(FORMERLY CRAIN PLUS POWER BAR)

used for:
1981 Sr. Nationals/1981 Teenage Nationals
1003 lb. squat/975 World Record squat

\$185.00 FOB
Immediate
shipment

SPECIAL
YORK
LIFTING SHOES
Red / White
\$60.00
+
\$2.50 P & H



Autographed Color
Pics of Rickey
5x7 \$2.50
3x5 \$1.00

- LIFTING ACCESSORIES**
- SUPER SUIT II . . . sizes 24 - 48 . . . Navy Blue, Royal Blue, Black, Scarlet Red . . . \$8 Each . . . 2/\$15 . . . 5/\$35 . . . 10/\$65
 - ordered . . . Free Pair of Super Wrap II with each suit . . . \$36.00
 - SUPER SUIT I . . . White . . . sizes 24 - 48 . . . \$28.00
(Free pair of Super Wrap II with each suit ordered)
 - SUPER WRAP II . . . \$7 Each . . . 2/\$13 . . . 3/\$18
 - HURRICANE WRAP . . . \$8 Each . . . 2/\$15 . . . 5/\$35 . . . 10/\$65
 - LIFTING SUIT . . . 100% stretch nylon . . . S - XL . . . \$16.50
(any color available)
 - SUPER BELTS by Bob Morris . . . 2 Tone . . . \$75.00
Style A . . . \$65.00
Style B . . . \$75.00
Style C . . . \$60.00
 - TRAINING STRAPS by Bob Morris . . . \$4.00
 - CRAIN'S FAT BELT . . . rubber elastic waist band with zipper
send waist size . . . \$10.00 . . . 2/\$17.50
 - DEADLIFT SHOES . . . send shoe size . . . \$10.00
 - SMELLING SALTS . . . \$3.50 . . . 2/\$8.00
 - CHALK . . . 8 blocks / 1 lb. . . . \$8.00

**BEVERLY INTERNATIONAL
SUPPLEMENTS**

- Ultra-Pak . . . highest potency available for vitamins & minerals
30 day supply . . . \$23.50
- MS: Ladies Health Pak . . . 22 days regular vitamins
8 days menstrual cycle . . . 30 days \$15.00
- Vitamin B-Complex . . . Time Released . . . 150mg/mcg . . . 100/\$17.60
- Rose Hips . . . 1725 mg . . . 100/\$9.60
- Vitamin E-mixed tocopherols . . . 400 IU . . . 100/\$10.00
- Zero Carbohydrate Super-High Protein . . . 34 oz./\$18.00
13 oz./\$9.50
- Mixed Glandular Tabs . . . 60 tabs . . . 30 days . . . \$20.00
- Desiccated Liver & Yeast . . . 20 gr . . . 100/\$17.00
- Mega Minerals . . . 100/\$7.60
- Hoffman's Energol . . . 20 minims . . . 180/\$9.50
- DMSO . . . 99% Pure Unadulterated . . . 4oz./\$8.00 . . . 8 oz./\$12.00
Dimethyl Sulfoxide (DMSO) . . . Status Report . . . (free with DMSO order) . . . \$1.50



FREE BUMPER STICKER
WITH ANY ORDER

Order your J-J t-shirt
send color and size desired
\$8.00

POSTAGE & HANDLING
\$1.50

OUTSIDE U.S.A.
SURFACE . . . 15 PER CENT
AIRMAIL . . . WRITE
AMERICAN EXPRESS

If you need training info., nutritional ideas, prices on
equipment (discounts available), give me a call or write
(enclose stamped, self-addressed envelope) to place an
order or just b.s. a bit about the Iron Game. Before you
buy from anyone else call or write me.

CRAIN POWER-PLUS

RICKEY DALE CRAIN
P.O. BOX 1322
SHAWNEE, OKLAHOMA 74801
1-405-275-3689

CUSTOM DESIGN T-SHIRTS — QUANTITY DISCOUNTS — DEALERS WELCOME

POWER-RESEARCH

dedicated to bringing Science to the sport of Powerlifting

The Biomechanics of Powerlifting

by Tom McLaughlin, Ph.D.
Director, Biomechanics Laboratory
Dept. HPR, Auburn University
Auburn, Alabama 36830

Dr. Tom McLaughlin's credentials as a researcher in the field of Powerlifting are impressive. He has had articles published in MEDICINE AND SCIENCE IN SPORTS, RESEARCH QUARTERLY, JOURNAL OF BIOMECHANICS, and THE ENCYCLOPEDIA OF PHYSICAL EDUCATION, FITNESS, AND SPORTS and he has made presentations to such groups as the AMERICAN COLLEGE OF SPORTS MEDICINE, the AMERICAN SOCIETY OF BIOMECHANICS, and the INTERNATIONAL CONGRESS OF SPORTS SCIENCES. Following graduate studies at the University of Illinois at Urbana-Champaign, he became an Assistant Professor at Auburn University, Director of the Interdisciplinary Biomechanics Laboratory, and was a co-founder of the National Strength Research Center. He was also an invited Research Professor of Biomechanics at UCLA in 1979.

**THE FUTURE POWERLIFTER
--AN ELASTIC MAN?**

Today we are in an age of powerlifting which future historians may refer to as a really 'super' one. 'Super' that is, in reference to all of the varieties and manner of elastic lifting gear worn by contemporary powerlifters (like 'super' suits, 'super' wraps, 'super' shirts, 'super' socks, etc.) For those attending a powerlifting meet for the first time it must be interesting for them to observe powerlifters hobbling to and from the platform in full contest suit, wraps, etc., like a cross between an old mummy/film and some type of strange scene.

My article this month has two major goals: (1) to expose the powerlifting community to elastic lifting gear and (2) to raise questions regarding the use and the quest for such elastic gear. If I accomplish nothing else at all, I should probably meet acquaintances with a new reason to give us as to why lifters use suits, wraps, etc.

First of all, let's examine the concept of 'elastic energy'. Let's look first at a scene where we have a pogo stick bouncing along the road. Each time he lands on the road, energy is stored in the pogo stick's spring and this energy is subsequently released during the elastic recoil as he takes off again. This suggests that in a similar manner energy might be saved if springs were somehow built into the human body. These springs which store the energy and release it again when required this would allow our superheavyweight powerlifter to bounce along using much less power and this time without the pogo stick. Kangaroos, for example, are so good at this that they require less energy the faster they hop!

There is, in fact, evidence that a good deal of energy in human motion is saved by elastic structures in the body (used much like the spring in a pogo stick). One such study

psychological, but probably, a reasonable amount of elastic energy is in fact stored and beneficially used (probably in an identical way to what we have just seen for the body) in 'super' suits, wraps, etc. It is possible to evaluate the effect of all types of 'super' gear biomechanically by a number of experimental or analytical methods, just like the Biomechanics group at Penn State this year evaluated the way down through the squat until perhaps a few inches or so above parallel. Typically after this point is reached, the top lifters then begin to increase the velocity of the descent before starting to drive up out of the bottom. Less skilled squatters were found to let bar momentum get out of control early in the squat and typically reach the bottom with higher rebound velocities (or 'bounce') than the better squatters. It seems logical that less skilled or beginning lifters are less able to tolerate these greater rebounds than top lifters can! This is mainly because training has been found to help increase the ability to store and retrieve elastic energy. It has also been shown that males can usually handle much greater rebound loads than females (watch the bouncers, girls!) (Ref. 5).

Where is all this elastic energy stored? Since we don't actually have springs imbedded in our bodies (although one can't always tell what the Soviets, the East Germans, etc. were doing), the energy must be stored somewhere in the body before being used later. This energy is stored in the elastic components of the muscles themselves. Now, all of my discussion so far has been about how elastic energy is stored briefly in the body by a counter movement before being retrieved to help the movement start. I have discussed the squat in particular, although to a lesser extent this also explains why bench press repetitions are easier when either a bounce or touch and go than when paused. We lose virtual-ly all the elastic energy during the second (s?) we are holding the bench press pause while waiting for the referee's signal. From what we've seen so far, it does make sense for a lifter to try to let the bar sink in a bit (being careful to avoid disqualification) after the referee's clap before trying to start the bench press on its way upward. Doing presses all the time in training should also be carefully thought out.

Now, what happens when a powerlifter puts on a full complement of elastic (suit, wraps, etc.)? Good question! There is little doubt in most powerlifter's minds that they do help. Certainly, a big reason why elastic gear helps is 115% weighing a mere 108.

Ref. 1. Thys, H., Szeczigiana, J. and Margaria, R., Journal of Applied Physiology, 32, 491-494, 1972.

Ref. 2. Casazza, G. A., DiPasqua, D. and Margaria, R., Positive Work done by the previously stretched muscles, Journal of Applied Physiology, 24, 21-32, 1968.

Ref. 3. Komi, T. D., Neuro Muscular Performance: Factors Influencing Force and Speed Production, Scandinavian Journal of Sports Science, 1, 245-259, 1979.

Ref. 4. Amussen, E. and Bondar, V., Elastic Energy Storage in Mammalian Skeletal Muscles, Acta Physiologica Scandinavica, 91, 385-392, 1974.

Ref. 5. Komi, T. D. and Bosco, C., Utilization of Stored Elastic Energy in Leg Extensor Muscles by Men and Women, Scandinavian Journal of Sports Science, 10, 261-265, 1978.

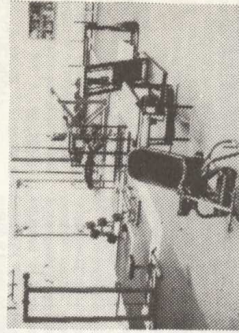
More Crain Power... Rickey's new wife just set a Teenage Women's World Record in the bench of 115% weighing a mere 108.

BARBELL & GYM EQUIPMENT

Free planning and counseling for:
HOME GYMS • SCHOOL GYMS • PRO GYMS

Largest In Stock Supply In Pennsylvania!

- OLYMPIC SETS
- EXERCISE & POWER SETS
- POWER & SQUAT RACKS
- LAT & PEC MACHINES
- CALF, HACK, & LEG MACHINES
- COMBO & SPECIAL BENCHES
- PRO GYM DUMBBELLS
- EVERLAST HEAVY BAGS



(Pitt Barbell Club Gyms!)

Distributors for AMF, Corbin-Gentry
 Dyna-Cam, Global, MGI
 and many others

Protein - Vitamins - Health Foods



Pitt BARBELL & HEALTHFOOD
 (Warehouse outlet)
 5012 Buttermilk Hollow
 West Mifflin, PA 15122
412-466-9307

(Main office)

126 Penn Hills Mall
 Pittsburgh, PA 15235

412-371-4366

(send \$1.00 for your complete catalog)

NATIONAL MASTERS

24/25 OCT 81 Naperville, ILL

60kg/132

198 115 259 573 413 314 512 1240

40-44 Age Group

J. Gentry 52kg/114 192 82 242 518 470 970 1102

45-49 Age Group

347 198 424 970 638 383 617 1669

50-54 Age Group

325 214 363 903 626 209 407 803

55-59 Age Group

325 214 363 903 626 209 407 803

60-64 Age Group

325 214 363 903 626 209 407 803

65-69 Age Group

325 214 363 903 626 209 407 803

70-74 Age Group

325 214 363 903 626 209 407 803

75-79 Age Group

325 214 363 903 626 209 407 803

80-84 Age Group

325 214 363 903 626 209 407 803

85-89 Age Group

325 214 363 903 626 209 407 803

90-94 Age Group

325 214 363 903 626 209 407 803

95-99 Age Group

325 214 363 903 626 209 407 803

100-104 Age Group

325 214 363 903 626 209 407 803

105-109 Age Group

325 214 363 903 626 209 407 803

110-114 Age Group

325 214 363 903 626 209 407 803

115-119 Age Group

325 214 363 903 626 209 407 803

120-124 Age Group

325 214 363 903 626 209 407 803

125-129 Age Group

325 214 363 903 626 209 407 803

130-134 Age Group

325 214 363 903 626 209 407 803

135-139 Age Group

325 214 363 903 626 209 407 803

140-144 Age Group

325 214 363 903 626 209 407 803

145-149 Age Group

325 214 363 903 626 209 407 803

150-154 Age Group

325 214 363 903 626 209 407 803

155-159 Age Group

325 214 363 903 626 209 407 803

160-164 Age Group

325 214 363 903 626 209 407 803

165-169 Age Group

325 214 363 903 626 209 407 803

170-174 Age Group

325 214 363 903 626 209 407 803

175-179 Age Group

325 214 363 903 626 209 407 803

180-184 Age Group

325 214 363 903 626 209 407 803

185-189 Age Group

325 214 363 903 626 209 407 803

190-194 Age Group

325 214 363 903 626 209 407 803

195-199 Age Group

325 214 363 903 626 209 407 803

200-204 Age Group

325 214 363 903 626 209 407 803

205-209 Age Group

325 214 363 903 626 209 407 803

210-214 Age Group

325 214 363 903 626 209 407 803

215-219 Age Group

325 214 363 903 626 209 407 803

220-224 Age Group

325 214 363 903 626 209 407 803

225-229 Age Group

325 214 363 903 626 209 407 803

230-234 Age Group

325 214 363 903 626 209 407 803

235-239 Age Group

325 214 363 903 626 209 407 803

240-244 Age Group

325 214 363 903 626 209 407 803

245-249 Age Group

325 214 363 903 626 209 407 803

250-254 Age Group

325 214 363 903 626 209 407 803

255-259 Age Group

325 214 363 903 626 209 407 803

260-264 Age Group

325 214 363 903 626 209 407 803

265-269 Age Group

325 214 363 903 626 209 407 803

270-274 Age Group

325 214 363 903 626 209 407 803

275-279 Age Group

325 214 363 903 626 209 407 803

280-284 Age Group

325 214 363 903 626 209 407 803

285-289 Age Group

325 214 363 903 626 209 407 803

290-294 Age Group

325 214 363 903 626 209 407 803

295-299 Age Group

325 214 363 903 626 209 407 803

300-304 Age Group

325 214 363 903 626 209 407 803

305-309 Age Group

325 214 363 903 626 209 407 803

310-314 Age Group

325 214 363 903 626 209 407 803

315-319 Age Group

325 214 363 903 626 209 407 803

320-324 Age Group

325 214 363 903 626 209 407 803

325-329 Age Group

325 214 363 903 626 209 407 803

330-334 Age Group

325 214 363 903 626 209 407 803

335-339 Age Group

325 214 363 903 626 209 407 803

340-344 Age Group

325 214 363 903 626 209 407 803

345-349 Age Group

325 214 363 903 626 209 407 803

350-354 Age Group

325 214 363 903 626 209 407 803

355-359 Age Group

325 214 363 903 626 209 407 803

360-364 Age Group

325 214 363 903 626 209 407 803

365-369 Age Group

325 214 363 903 626 209 407 803

370-374 Age Group

325 214 363 903 626 209 407 803

375-379 Age Group

325 214 363 903 626 209 407 803

380-384 Age Group

325 214 363 903 626 209 407 803

385-389 Age Group

325 214 363 903 626 209 407 803

390-394 Age Group

325 214 363 903 626 209 407 803

395-399 Age Group

325 214 363 903 626 209 407 803

400-404 Age Group

325 214 363 903 626 209 407 803

405-409 Age Group

325 214 363 903 626 209 407 803

410-414 Age Group

325 214 363 903 626 209 407 803

415-419 Age Group

325 214 363 903 626 209 407 803

420-424 Age Group

325 214 363 903 626 209 407 803

425-429 Age Group

325 214 363 903 626 209 407 803

430-434 Age Group

325 214 363 903 626 209 407 803

435-439 Age Group

325 214 363 903 626 209 407 803

440-444 Age Group

325 214 363 903 626 209 407 803

445-449 Age Group

325 214 363 903 626 209 407 803

450-454 Age Group

325 214 363 903 626 209 407 803

455-459 Age Group

325 214 363 903 626 209 407 803

460-464 Age Group

325 214 363 903 626 209 407 803

465-469 Age Group

325 214 363 903 626 209 407 803

470-474 Age Group

325 214 363 903 626 209 407 803

475-479 Age Group

325 214 363 903 626 209 407 803

480-484 Age Group

325 214 363 903 626 209 407 803

485-489 Age Group

325 214 363 903 626 209 407 803

490-494 Age Group

325 214 363 903 626 209 407 803

495-499 Age Group

325 214 363 903 626 209 407 803

500-504 Age Group

325 214 363 903 626 209 407 803

505-509 Age Group

325 214 363 903 626 209 407 803

510-514 Age Group

325 214 363 903 626 209 407 803

515-519 Age Group

325 214 363 903 626 209 407 803

520-524 Age Group

325 214 363 903 626 209 407 803

525-529 Age Group

325 214 363 903 626 209 407 803

530-534 Age Group

325 214 363 903 626 209 407 803

535-539 Age Group

325 214 363 903 626 209 407 803

540-544 Age Group

325 214 363 903 626 209 407 803

545-549 Age Group

325 214 363 903 626 209 407 803

550-554 Age Group

marathon nutrition®

AGAIN SCORES HIGHEST TOTAL

in
Potency * Effectiveness * Convenience

Dedicated Powerlifters know that peak performance is supported by explosive power and sustained endurance. This calls for a no-nonsense nutritional program.

We train powerlifters. We understand competitive stress, and we can help you achieve your maximum efficiency.

We have chosen eight tablets. They contain optimum amounts of the vitamins, minerals and enzymes which meet your special needs.

- High Potency B Complex and Vitamin C with Bioflavonoids are in sustained release form. Your body will be supplied with these vital nutrients over a 6 to 8 hour period, for complete utilization.

- The all-important Minerals are Amino Acid Chelated for your greatest assimilation.

- The oil base Vitamins A, D and E increase your oxygen efficiency and insure proper mineral interaction.

- And we've included the digestive enzymes which will enable you to build toward your goals with maximum protein and fuel food absorption.

As a finishing touch, we've put these eight tablets into an airtight packet for super convenience in daily doses.



Each Pack contains:

Lean Subjects	500%
Vitamin A (Palmitate)	25,000 IU
Vitamin D (Erad. Ergosterol)	150%
Vitamin E (d-Alpha Tocopheryl Acetate)	1,000 IU
	3333%
Vitamin C Complex (time release)	3333%
Vitamin C (Natural Ascorbic Acid)	200 mg
Ascorbyl Palmitate	500 mg
Synthetic Natural Rose Hips	500 mg
Hesperidin Complex	50 mg
B-Complex factors (time release)	100%
Folic Acid	400 mg
Vitamin B1 (Thiamin HCl & Yeast)	9333%
Vitamin B2 (Riboflavin HCl & Yeast)	130 mg
Vitamin B3 (Pyridoxine HCl & Yeast)	750%
Niacinamide	850%
Vitamin B5 (Hydro Cobal. Conc. & Yeast)	2167%
Vitamin B6 (Pyridoxine HCl & Yeast)	130 mg
Choline Bitartrate (Soy)	130 mg
Inositol (Soy)	130 mg
Pan-Amino Benzoic Acid	130 mg
Chelated Mineral Compounds	1500 mg
Calcium (Mol.)	100%
Iron (Anno Acid Chelate)	225 mg
Magnesium (Anno Acid Chelate)	45 mg
Copper (Anno Acid Chelate)	188%
Zinc (Anno Acid Chelate)	250%
Manganese (Anno Acid Chelate)	44%
Potassium (Potrate)	15 mg
Stearium Yeast (21)	100 mg
Chrominum (Anno Acid Chelate)	150 mg
Enzyme Compounds	150 mg
Guaranic Acid Hcl	150 mg

***U.S. Recommended daily allowance for Adults and Children 12 years of age or older.
**U.S. FDA not established.
***Need in human nutrition not established.

marathon NUTRITION®

1229 Via Landeta, Palos Verdes Estates, CA 90274
Phone: (213) 519-7111 / 375-3802

30/\$20.00 60/\$36.00

more Power Products from marathon

Vitamin B-15 - 100 mg. Calcium Pargamate
100/\$7.00 200/\$12.00

Balanced B Complex 125 mg.
High Potency Sustained release B Complex formula
30/\$4.50 60/\$7.75 90/\$10.95

Milk and Egg Protein
Good taste, easy mixing, highest protein efficiency
1 lb/\$6.50

Multi-One with Stress Factors
A One-a-Day High Potency Vitamin-Mineral tablet
30/\$5.00 60/\$9.50 90/\$14.00 180/\$24.00

One-Daily Formula 100 (sustained release)
A Multi-Vitamin & Mineral tablet featuring
100 mg. B
30/\$6.00 60/\$11.00 90/\$17.00

Super Bio-C 2000 - sustained release Vitamin C Complex
Formulated with naturally selected Rose Hips Powder, and Bioflavonoids which act as a catalyst for Vitamin C, helps maintain capillary integrity and heal muscle tissue
Each tablet contains:
• Vitamin C 1000 mg. • Rose Hips Powder: 500 mg. • Bioflavonoids 500 mg. • Rutin 50 mg.
50/\$4.50 100/\$7.75 250/\$17.50

Maxi-A-Min High Potency Mineral Complex
Two tablets contain:
• Calcium 1000 mg. • Magnesium 500 mg. • Zinc 22.5 mg.
• Potassium 95 mg. • Iron 30 mg. • Iodine 150 mcg.
• Manganese 10 mg. • Copper 3 mg. • Selenium 50 mcg.
• Chromium 20 mcg. • Betaine HCl 100 mg. • Glutamic Acid HCl 100 mg. • Vitamin D-400 IU
90/\$4.50 180/\$7.95 360/\$14.95

Distributor and Wholesale inquiries welcome on these products and the complete line of Marathon Nutrition® Supplements.

SHOP BY PHONE OR MAIL

* If you would like a complete list of Marathon Nutrition Vitamin, Mineral and Glandular Supplements, check here.

PRODUCT	SIZE	QTY.	PRICE	EXT.	PRODUCT	SIZE	QTY.	PRICE	EXT.
Gold Medal Pack™					B Complex 125 mg.				
2 Gram Liver					Protein, Milk and Egg				
Super Pack					Multi-One				
One Pack					One-Daily Formula 100				
One Gram Liver					Super Bio-C 2000				
B-15					Max-A-Min				
								TOTAL \$	

SHIP TO:

MasterCard VISA
Card No. _____
Expiration Date _____

Use MasterCard, Visa, Money Order or Check
MARATHON NUTRITION®
1229 Via Landeta
Palos Verdes Estates, CA 90274
Overseas orders add 20%.
© COPYRIGHT MARATHON DISTRIBUTING CO. - 1981

SOUTHWEST NATIONAL NOVICE POWERLIFTING CHAMPIONSHIPS

This meet is open to anyone in the USA meeting the eligibility requirements!

Date: January 16 and 17, 1982 Sat. - Mens 114-198 Womens - 97-114
Sun. - Mens 220-SHW Womens - 123-SHW

Location: Crossroads Mall, I-240 and I-35, Oklahoma City, Oklahoma. The lifting will be held in center court in this, the largest shopping mall in the United States with literally thousands of spectators!! This should provide our novice lifters with a terrific opportunity to promote their sport in front of the public!!!

Times: Lifting will begin at 10:00 a.m. on both days.
Weigh-in will be held from 8:00 to 9:30 a.m. each day.

Divisions: There will be both a Men's and a Women's division.

Definition of Novice: Anyone who has never placed first in a powerlifting competition is now designated a novice according to a USPF decision made at the St. Nationals in 1981.

Weight classes: Men's - 114, 123, 132, 148, 165, 181, 198, 220, 242, 275, SHW
Women's - 97, 105, 114, 123, 132, 148, 165, 181, SHW

Individual Awards: First through fifth place winners in each division will receive a large, beautiful trophy. The first place trophies will be at least 40 inches tall!!!

Team Awards: The first place team will receive a 400 lb. set of York Olympic weights and a trophy. Second place receives a York E-Z curl bar and a trophy and third place will receive a trophy.

Entry Fees: Men's Or Women's Division - \$20.00 Entry deadline is Jan. 8, 1982.
Team Entry - \$40.00 Late entry will be \$25.00.

Meet Directors: Richard Peters and Marion Fisher.

ENTRY BLANK *****

NAME _____ WEIGHT CLASS _____

ADDRESS _____ CITY _____ STATE _____

ZIP _____ PHONE _____ BEST TOTAL _____

DIVISION _____ TEAM _____

I hereby release all claims for injuries or damages which I may incur in this meet against Richard Peters, Marion Fisher, the USPF, and Crossroads Mall.

Signature _____ Parent Or Guardian (if under 21) _____

Return entry form with entry fee to:
Southwest National
P.O. Box 1753
Norman, OK 73070
(405)-360-6145

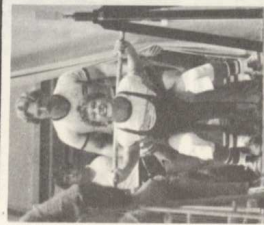
6/7 March
Pacific Northwest
OPEN
Magruder's
Fitness Center
15337 NE 92 St.
Redmond, WA
98052
1-206-881-2727

NEW LIFE CLASSIC 7/25-26/81-LIMA WEST, OH

	50	80	110	140	170	200	230	260	290	320	350	380	410	440	470	500
WOMEN																
S. Carter	180	85	235	500												
S. Miller	165	95	165	425												
S. Meyer	190	95	210	495												
S. Penz	150	75	230	455												
	114	90	230	440	220											
MEN																
D. Wymer	175	85	240	500												
M. Colver	180	75	230	485												
G. Brimley	150	85	245	480												
C. Smith	120	70	220	425												
J. Piper	120	70	205	395												
C. Hickman	275	130	330	755												
C. Dickey	190	100	255	545												
	132															
Stevenson	245	110	300	655												
F. Jones	180	115	260	570												
T. James	180	115	260	555												
C. Cavanaugh	180	115	260	555												
M. Staker	165	80	235	480												
	123															
M. Aberrathy	340	180	365	885												
L. Lucas	300	190	350	840												
S. Lutz	300	190	350	840												
C. Sargent	310	215	400	925												
D. Davis	275	205	325	805												
	148															
D. Engle	480	265	480	1265												
	335	290	450	1075												

New IPF Secretary, ARNOLD BOSTROM...his address is Box 607, 126-06 Hagersten, SWEDEN and he is the one to send World Record Applications to from now on, rather than Clay Patterson.

WHO'S WHO IN POWERLIFTING



Louis Campo, 14, squatted 370, benched 275, and deadlifted 400 for a 985 total on October 17 at the Southern States PL Championships, his first meet. These are Florida state records in 132 lb. class and exceed the winning total at this year's Teenage Nationals. Louis attends key West, H.S. and trains at Champion several other girls at her school. Photo and info courtesy Lloyd Coon.



Cathie George is a 15 year old student at Swartz Creek High School in Swartz Creek, Michigan and has done a 200 squat, 105 bench press, 285 deadlift and 590 total in sanctioned competition in the 132-lb. class. These lifts place her very high nationally for her age. She trains together with several other girls at her school. Photo and info courtesy Lloyd Coon.



Chris Cabonaro, 18, was in a mishap 4 years ago which resulted in the loss of his right arm. Since that time he began lifting at Ray's House of Iron in New Jersey, under the encouragement of Ray Penna. He totals 850 using special equipment. Chris says, "I don't do it to prove something to other people, I do it to prove something to myself." Penna photo.



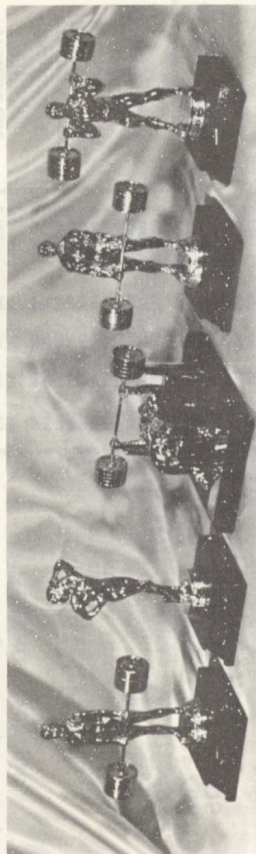
John Varrone has been lifting weights for 21 years and has been Connecticut State Champion 13 times. Relatively unknown nationally, he is highly respected in his home state for his courageous lifting and tremendous Dedulif, as well as 1st place in the 165 lb. class at the Middletown Open recently. Photo by James Mick.

1982
3rd Annual Teenage Open
Powerlifting Championships
Augusta, Georgia
MARCH 6th
at the Thunderbird Inn
Three Age Categories
14-15 yrs. old / 16-17 yrs. old / 18-19 yrs. old
3 PLACES IN EACH AGE GROUP
7 BEST LIFTER AWARDS
3 TEAM AWARDS
*"If you are a Teenager,
Don't miss this meet!"*
for more information contact:
TOM KING
1130 Brookwood Dr.
Augusta, GA 30909
404-733-1028 (home)
803-278-1665 (gym)

Powerlifters Handbook...contains the OFFICIAL International Powerlifting Federation rules for the sport of Powerlifting, all sorts of national and world record listings, Monroe Formula, Schwartz Formula (extended to 155 kilos bodyweight), Kilo Conversion chart (extended to 1100 kilos), instructions on how to use the formulas to figure what you need to win Best Lifter, Meet Director's \$8.00 per copy, postcard or (Pay Attention, Meet Directors...these will sell like hotcakes at your next contest) \$4.00 each if you buy 25 or more at a time. Order from John Pettit, Rt. 2, Box 328P, Middletown, Texas 76065.

Whether you're a Big Name or a No Name, send in your picture and details to this new feature

OLYMPIC TROPHY presents
the BENCHER



Female Deadlifter
 Figure only \$6.00

Female Physique
 Figure only \$3.50

BENCHER \$15 mounted and engraved
 Figure only \$12.00

Male Deadlifter
 Figure only \$6.00

Male Squatter
 Figure only \$6.00

How much will **TROPHIES** cost for my meet?

If you've tried to answer that question you know that the research involved in coming up with the answer can be quite time consuming. In order to simplify this process, Olympic Trophy has attempted to give the meet director an idea of what he can get for his money. All prices are based on:

- 11 1st place
- 11 2nd place
- 11 3rd place
- 2 Best Lifter graduated sizes
- 1 Team

The trophy pictured next to your budget is the size of an average trophy (a 2nd place) in your price range. These prices include a squatter, deadlifter, or a female deadlifter on top of the trophy. For a bench press figure add \$6.00 per trophy. For a free catalog of other possibilities call or write Olympic Trophy.



\$600
 1st-16 1/4 in.
 2nd-15 1/4 in.
 3rd-14 1/4 in.
 Team-24 in.
 or \$19.50 EACH

\$800
 1st-23 in.
 2nd-22 in.
 3rd-21 in.
 Team-30 in.
 or \$26.50 EACH

\$1000
 1st-31 in.
 2nd-30 in.
 3rd-29 in.
 Team-33 in.
 or \$34.75 EACH

\$1200
 1st-35 in.
 2nd-34 in.
 3rd-33 in.
 Team-42 in.
 or \$43.70 EACH

\$2725
 1st-38 in.
 2nd-37 in.
 3rd-36 in.
 Team-42 in.
 (includes Bench, Squatter & Deadlifter)
 or \$85.00 EACH



Winners Take All

Here it is—the complete training system by Mike Bridges

This complete course-book is a handsome 52-page edition that will pay for itself many times over. No serious lifter will want to be without it! Just published, "New Dimensions in Powerlifting" is packed with new ideas, techniques, inside hints, training schedules, routines, competition approaches, and more. A WINNING approach from a real WINNER! A great contribution to the sport.

NEW



First Edition

Only \$14.95



NEW!

'Let the Bridges System' Work for You!

Mike Bridges has developed a new Strength Dimension in our sport and would like to share the 'WINNING' ways on a personal basis developing an individual taped training course of your very own. Just send previous training program and receive a programmed analysis to a new and rewarding fresh approach to a 'WINNING TOTAL'.

ONLY \$19.95!

- SUPER SUIT 1 — White only, \$28.
- SUPER SUIT 2 — Famous "Spanjan" material in Navy Blue, Royal Blue, Scarlet Red. (Indicate choices 1, 2 or 3) Both Suits available in sizes 26-46, \$36.
- Plus FREE pair of Super Wrap Its with each Super Suit you order.
- SUPER WRAP — 1 pair \$5., 3 pair \$12.
- SUPER WRAP 2 — Longer-lasting, higher-grade fabric. 1 pair \$7. 2 pair \$13., 3 pair \$18.
- DEADLIFTING STRAPS — 1 pair \$6., 2 pair \$11., 3 pair \$15.
- SUPER BELTS — By Bob Morris. The finest available. Leather—Regular Thickness \$33. Leather—Double Thickness \$62. Suede—Double Thickness (any color) \$75.

Description	Quantity	Color(s)	Waist Size or Weight Class	PRICE
Sub Total				
Shipping				
Total				



Mail to: Mike Bridges Systems
 P.O. Box 71
 Vandalia, Ohio 45377
 513/890-8775

'Now Available for Seminars'

Prices include tax and shipping in the U.S.A. Outside U.S.A. add 10% for Surface Mail and 20% for Air Mail Satisfaction Guaranteed. C.O.D. Accepted

Name _____
 Address _____
 City/State _____ Zip _____

DYNAMICS of the DEADLIFT

4. OVERCOMING STICKING POINTS

Although overloading and power rack training can be quite effective for some lifters, others require the use of a full range of motion which is unassisted to overcome sticking points. Two fine methods of overcoming sticking points without overloading or power rack training are to first make the deadlift more difficult to perform by the angle of release or the changing of the angle to release and second to the actual lift. As a result, the squat rather than the full back squat as the angle change eliminates help from the back in the ascent.

Another example would be to do a close grip bench press rather than using the normal grip as this helps to eliminate shoulder and pectoral strength. This same method can be used with the deadlift in several ways instead of training on the deadlift itself so that when the trainee returns to the deadlift after several months or working it from a harder position, his or her poundages may increase markedly.

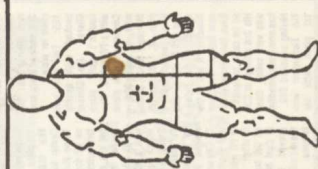
The second method of overcoming one's sticking points without overloading or using the power rack is to determine which muscle group or groups are creating a sticking point and then strengthening them by using exercises which isolate those muscles groups. For example, a two arm chin ups, latissimus, bicep and forearm. If someone wanted to isolate the bicep alone, he or she would specialize by doing a curling exercise which works just the bicep and not three muscle groups together. Isolation on one's weak muscle group can be done with myriads of exercises. Now the above mentioned routines will be explained separately.

A. Making the Deadlift More Difficult to Perform.
It sounds logical that an Olympic lifter can clean or power clean

Titan Suits

\$28. Don't let the price fool you! Our suits have been proven at the T/A Nationals and with world record poundages at the Senior Nationals. We have no stock sizes, every suit is customized to fit each individual or made to your specs. Choose from tan, chocolate, rust or blue. Specify training or competition fit. Send overall (top of trap to mid thigh, as illustrated), hip, leg measurement, height and wt. to:

Titan Suits, 921 Rickey, Corpus Christi, Texas 78412
Money orders or cashiers checks only to assure prompt delivery



The second type of exercise which makes the deadlift more difficult to perform is that which forces the lifter to stoop down lower to grasp the bar rather than forcing the lifter to pull the bar higher. It is similar to the first set of exercises in that it works the same muscles involved in deadlifting and greatly increases the distance of the pull.

The first of these exercises is the snatch grip deadlift. This is simply a deadlift performed on an Olympic bar with one's hands just inside the interior collars. The wide grip automatically forces the lifter to descend or squat lower thus creating a higher pull. A sample routine for someone who can perform 300 for one rep in this manner could be 135x10, 225x5, 250x1, 275x3-5

Another series of important exercises which force the lifter to bend lower thus creating a longer pull is the stiff leg or stiff leg deadlift done while standing on a 4 inch or 6 inch blocks or on top of a bench. Standing on 4 inch blocks causes the lifter's insteps to be approximately 2 inches from the bar. A 6 inch block allows for the lifter's insteps to actually touch the bar providing more distance to the pull. Placing the bar up on a bench and standing immediately behind it forces the lifter to bend all the way down to the toes to grasp the bar making the lifter pull the bar 8 inches further than normal. One set ahead of this would be to perform this style with legs bent at only a 10-20 degree angle which eliminates leg strength being used. If the trainee does decide to use the stiff leg variety of this exercise the trainee should make sure to stretch both hamstrings and back and start utilizing the movement very slowly.

The height of the block or whatever to utilize bent legs or straight should be left up to the lifter's experience. This author's personal routine has been to use straight legs with a 10 degree bend at the leg while standing on 4 inch high blocks. The routine is as follows: 135x10, 225x5, 385x2, 485x1, 505x1. The final set should be heavy but never maximum so as not to cause a stalemate or premature peak. The lifter may or may not wear lifting straps.

B. Developing the Muscles.
The second method of overcoming one's sticking points without the use of a power rack or overloading, is to determine which muscle group is causing a problem and isolate that muscle group with an exercise which works that muscle in a different angle or serves to exclude other assisting muscle groups or works the deadlift muscles from the point of sticking. The bottom, middle and top position of the deadlift will be analyzed and the muscles which are dominant in each phase will be recommended. Finally, suggested exercises for assistance will be recommended for each phase.

Before going over each phase it is important to point out that the quick Olympic lifts will be listed in these phases, (bottom, middle, top) and they will be illustrated with the power clean. Since, in the power clean, the lift is started from the floor and is pulled slightly faster than the deadlift, the lifter must concentrate on an explosive start. This concentration helps develop good starting power and thus the bottom position of the deadlift.

Since momentum is created in the middle of the power clean and speed accelerated, the lift can serve to break a middle sticking point in the deadlift. Also, the final shrug at the top of any quick lift helps to break a deadlift sticking point at the top where so many powerlifters are caught short.

Finally, since Olympic movements are fast, they serve to develop fast twitch muscle fibers which are those fibers utilized when an athlete executes a fast movement in sports. These fibers are left undeveloped from simply deadlifting and could serve to increase Olympic lifts. Therefore, the quick Olympic lifts will be listed under each of the three positions.

BOTTOM POSITION
According to Gray's Anatomy, the primary muscles for maintaining the spine in the erect posture and to bend the trunk backward when it is required to counterbalance the influence of any weight at the front of the body are the erector spinae

muscles. They are responsible for most of the action of the deadlift and along with a slight assist from bent quadriceps are responsible for the bottom position of the deadlift. Assistance movements which can help to isolate a weak bottom area are as follows:

- stiff leg deadlift.
- stiff leg deadlift on 4 inch blocks.
- stiff leg deadlift on 6 inch blocks.
- stiff leg deadlift with bar on bench, lifter standing on bench.
- stiff leg deadlift on 4 inch, 6 inch blocks or on bench.
- snatch grip deadlift.
- snatch grip deadlift on 4 inch, 6 inch blocks or on bench.
- isometric deadlift on power rack with empty bar set a low position.
- isometric/isotonic deadlift on power rack with loaded bar set at low position.
- the good morning exercise.
- power clean.
- clean pull.
- snatch pull.
- power snatch.
- hyperextension with or without weight.

MIDDLE POSITION.
The erector spinae muscles are still in the process of hoisting the weight but other muscles come into play and assist. The trainee will note that during the process of deadlifting the upper arm or humerus is drawn back slightly as the bar is pulled upward. This movement is primarily executed by the latissimus dorsi and lesser major muscles. Therefore, since these middle back muscles are attached to the humerus and serve to pull it back slightly when deadlifting, they will be the cause of a middle sticking point. Exercises to eradicate a middle sticking point are as follows:

- wide grip chins with or without weight.
- medium grip chins with or without weight.
- close grip chins with or without weight.
- wide grip chins behind neck with or without weight.
- pull downs with wide or medium grip in front on lat machine.
- grip behind neck on lat machine.
- pull ins with cable seated on grip.
- bent over barbell row (pronated grip).
- bent over barbell row (supinated grip).
- one dumbbell bent over row.
- two dumbbell bent over row.
- the good morning exercise.
- the power clean.
- clean pull.

A wide variety of exercises have been listed in hopes that the reader will be able to choose an exercise that will cater to his or her individual needs. A general rule would be to first ascertain one's sticking point, choose one isolation exercise and perform it once weekly. It is permissible if the trainee uses an assistance movement or movements which fully develop the same muscles involved in the deadlift. For example, if the trainee did the stiff leg deadlift on blocks once per week, it would be fine to exclude the deadlift as the important muscles are already worked.

If an assistance move is used in addition to the deadlift, perform it once weekly, three days before or after the deadlift and with higher repetitions than the deadlift so to focus power on the deadlift and not on the assistance movement.

World Masters '82. The Masters lifters voted to have the meet in late October (separate from the Olympic lifters now, by the way), however the IFP would rather have it earlier in the year so that it doesn't interfere, travel-wise, with the regular World Powerlifting Championships. The promoters, Chuck Braxton and Dean Best, found difficulty in securing the desired venue in late October, but can get it in early September, so it looks like that may be the eventual date.

- snatch pull.
- power snatch.
- isometric deadlift done with empty bar from middle position.
- isometric/isotonic deadlift done with loaded bar at middle position.
- lockout deadlift done from the middle position of the power rack.
- lockout deadlift done from middle position of power rack or off blocks with touch method.

TOP POSITION.

According to Gray's Anatomy the trapezius muscle retracts the scapula and braces back the shoulder, if the head is fixed, the upper part of the trapezius will elevate the point of the shoulders as in supporting weights. Thus, both in the deadlift and in the shrug, it is the shoulder directly backward. This is the action of the final shrug which places assistance improvements in the lifter. Assistance improvements are as follows:

- shrugs done with bar in front of body.
- shrugs done with bar behind body.
- shrugs with dumbbells.
- shrugs done in cheating style, pulling bar from just above knees using trapezi and back connectives.
- lockout deadlift from top position on power rack.
- isometric deadlift with empty bar at top position.
- isometric/isotonic deadlift with loaded bar at top position.
- the upright row done in cheating manner, pulling the bar from the floor to a sternum with close grip.
- power clean.
- clean pull.
- snatch pull.
- power snatch.

100 Capsules
only \$11.95

500 Capsules
\$49.95

'NATUROL' - Multi-Gland Formula
100 tabs.....\$13.00

'ORCHID 200' - Raw Testicle Gland
200 mg., 100 caps.....\$8.95

'ADRENAL 150' - Raw Adrenal Gland
150 mg., 100 caps.....\$9.95

'ULTRA-100' - Mega Potency Vitamin-Mineral Time Release with Chelated Minerals. 1-a-day for total nutrition 2 month supply.....\$12.00

'MULTI-PAK' - Supreme Potency Vitamin/Mineral Supplement. 30 day supply.....\$21.00

'B-15' - Russian Formula
100 tabs.....\$6.00

'MILK & EGG PROTEIN' - (No Sugar)
14 oz.....\$7.50

Order From:
**WHEELER'S
FITNESS AND STRENGTH ENT.**
P.O. BOX 1483
Bakersfield, Calif. 93302

805-871-3925
MC/VISA ACCEPTED

Calif. residents add 6% sales tax
Add \$1.50 for shipping
Outside U.S.A. add 20%

RAW GLANDULARS

Natural Steroid Substitutes

*** ANABOLIC GLANDULARS ***
Raw Milk-Gland Formula
TWO AS POTENT AS STEROIDS
Glands Produce Muscle
100% NATURAL
100 CAPSULES

EACH CAPSULE CONTAINS THE FOLLOWING RAW GLANDS:
Raw Adrenal 60 MG.
Raw Pituitary 60 MG.
Raw Orchic(esticle) 60 MG.
Raw Pancreas 60 MG.
Raw Kidney 60 MG.
Raw Heart 60 MG.
Raw Argentine Liver 150 MG.

*** 'NATUROL' - Multi-Gland Formula**
100 tabs.....\$13.00

'ORCHID 200' - Raw Testicle Gland
200 mg., 100 caps.....\$8.95

'ADRENAL 150' - Raw Adrenal Gland
150 mg., 100 caps.....\$9.95

'ULTRA-100' - Mega Potency Vitamin-Mineral Time Release with Chelated Minerals. 1-a-day for total nutrition 2 month supply.....\$12.00

'MULTI-PAK' - Supreme Potency Vitamin/Mineral Supplement. 30 day supply.....\$21.00

'B-15' - Russian Formula
100 tabs.....\$6.00

'MILK & EGG PROTEIN' - (No Sugar)
14 oz.....\$7.50

Order From:
**WHEELER'S
FITNESS AND STRENGTH ENT.**
P.O. BOX 1483
Bakersfield, Calif. 93302

805-871-3925
MC/VISA ACCEPTED

Calif. residents add 6% sales tax
Add \$1.50 for shipping
Outside U.S.A. add 20%

SUPERWRAP II

"The finest knee wrap available for competition or training"

- 3 Pairs \$18.00 • 2 Pairs \$13.00 • 1 Pair \$7.00
- STRONGER • HEAVIER • LONGER LASTING
- OFFICIAL LENGTH • GREATER STRETCH WITH MORE COMFORT

SUPERWRAP II is the most effective knee wrap in use. Top competitors around the world buy SUPERWRAP II to improve squat performance. Another fine value from the MARATHON Distributing Company.

"... add pounds to our SQUAT & TOTAL." Use SUPERWRAP AND SAVE \$\$\$!
FREE PAIR OF SUPERWRAP II with each Supersuit™ purchased.

Also ... the original SUPERWRAP™ • 3 Pairs \$12.00 • 1 Pair \$5.00
 ... the original heavy duty knee wrap cut to official length

BOB'S Custom Lifting Belts from **marathon** Distributing Co.

Style (A) Deluxe Suede Covered belt with stitching twice around belt, once down center, and around holes ... \$75.00

Style (B) Suede Covered belt has stitching twice around belt and once down center. Double row of holes ... \$75.00

Style (C) Double thickness belt with stitching once around belt, down center and around holes ... \$60.00

Style (D) Single thickness belt with double row of holes ... \$30.00

Two Tone® ... \$75.00

Training Strap's Heavy washable nylon won't stretch. Blue, yellow, green, red ... \$5.00

Style 1

SHOP BY PHONE OR MAIL

Male Female

Height Weight Suit Size Qty. EXT.

Item	Height	Weight	Suit Size	Qty.	EXT.
SUPERSUIT™ II					
SUPERSUIT™					
SUPERWRAP™ II					
SUPERWRAP™					
Additional orders or special instructions					Total

IMPORTANT

SUIT SIZE: If you are certain of your suit size, please indicate it in the appropriate column of the adjacent order form. If you've never before worn a Supersuit, check the appropriate box for male or female.

SUIT COLOR: Indicate your 1st, 2nd and 3rd choice of color by numbering the appropriate box.

BELTS: Indicate waist measurement, style and color preference.

SUPERSUIT™ II

- Black
- Navy
- Blue
- Royal
- Scarlet
- Red

SUPERSUIT™

- Natural

Name: _____ Exp. Date _____

Address: _____ State _____ Zip _____

City _____

Check, Money Order, MasterCard or Visa must accompany orders.

Card No. _____ Exp. Date _____

*Overseas orders add 20% Calif. residents add 6% Sales Tax.

Phone: (213) 519-7111/375-3802

Palos Verdes Estates, CA 90274



marathon Distributing Company 1229 Via Landeta, Palos Verdes Estates, CA 90274

FREE SUPERWRAP™ II

SUPERSUIT™

from **marathon**™
 Distributing Company

"SUPERSUIT™ supports powerlifters throughout the world ... proven in international and national competitions."

More local, state, national, international, and world championships have been won in a SUPERSUIT™ than any other lifting suit."

• The finest POWERLIFTING SUIT AVAILABLE. The famous SUPERSUIT™ by Spanjian is offered in FIVE COLORS. Both models, SUPERSUIT™II and the SUPERSUIT™, feature, the same design; HIGHER SIDEPANELS and WIDER SHOULDER STRAPS for GREATER BODY SUPPORT in the SQUAT.

• The new Supersuit™ II, with even stronger material is now available in navy blue, royal blue, scarlet red, and black for \$36.00. The original Supersuit™ is available in natural (white) for \$28.00.

• FREE Pair of SUPERWRAP™ II with each suit purchased.

MIKE BRIDGES, MULTI-CLASS WORLD CHAMPION "... A POWERLIFTER AHEAD OF HIS TIME."

MARK DIMIDIK 1980 WORLD CHAMPION

LARRY PACIFICO 9 TIME WORLD CHAMPION

MARVIN PHILLIPS, 20-TIME WORLD RECORD HOLDER IN THE SQUAT

The best wear Supersuits, so wear the best
 Increase your squat and total with a SUPERSUIT™
 Often imitated — never equalled

- SUPERSUIT™ II (Stronger Material) Black, Navy Blue, Royal Blue, Scarlet (Red) ... \$36.00
- SUPERSUIT™ Natural Color (White) ... \$28.00
- SIZES AVAILABLE: 24, 26, 28, 30, 32, 34, 36, 38, 40, 42, 44, 46, 48

The numbered sized suits give a more accurate fit for greater body support during the squat. Do not accept substitutes.

The MARATHON Co. is the exclusive worldwide source of the Supersuit™ by Spanjian.
 Distributor inquiries on SUPERSUITS™ and SUPERWRAPS™, foreign or domestic, are welcomed.
 Team, school and wholesale discounts also available.

"Champions and record holders TRAIN and WIN with SUPERSUIT™."
 — ORDERS PROCESSED SAME DAY AS RECEIVED ... IMMEDIATE SHIPMENT —

POWER-RESEARCH

dedicated to bringing Science to the sport of Powerlifting

PSYCHOLOGICAL ASPECTS OF POWERLIFTING

by Jud Biasiotto, Ed.D. and Ed Ritter, PhD

BIORHYTHMS -- CAN THEY PREDICT WEIGHTLIFTING SUCCESS?

What are biorhythms? We are surrounded by naturally occurring cycles: the ebb and flow of tides, night and day, and seasonal changes - to name but a few of the physical cycles. Less obvious are the cycles of activity occurring within our bodies and other living organisms. Nonetheless, many biological functions regularly alternate between one level and another. A biological rhythm which is readily observable is one's pulse rate, or the 28 day menstrual cycle in women.

In addition to being rather constant functions, what is especially interesting about biological rhythms is that they are intrinsic, and are not dependent on environmental factors even though they can be influenced by such factors. Whether or not the rhythm is intrinsic can be determined by controlling the environment. For example, the organism might be kept in light or darkness or at a constant temperature in order to see if the rhythm persisted. Intrinsic rhythms have been demonstrated in all plants and animals except for the very lowest forms.

No one has located a structure or organ which serves as a biological clock, but it is thought that biological rhythms are produced by chemical substances which are produced and used up during metabolism.

Even though biological rhythms are intrinsic they are also correlated with environmental events such as the time of day. Again, keep in mind that biological rhythms are not independent of the environment - often changes in temperature or light serve to signal the function. If the signal occurs with regularity and with a period which is not very different from the biological rhythm, the biological rhythm will fall into step and become synchronized. For example, newborns have very disorganized patterns of hunger and sleep, but soon fall into the regular periods which are typical of the culture.

We are most likely to become aware of biological functions when we are disrupted such as when we fail to get enough sleep or attempt to adjust to rotating shift work. The desynchronization caused by flights across several time zones produces a sense of fatigue and malaise called "jet lag." It is possible to reset biological rhythms by changing the phase of the signal. However, such adjustments take time. For exam-

beginning and middle of each cycle when the phase changes direction from positive to negative or vice versa. On these days we are in a transition state and thus, so are the theory goes, we are most vulnerable. That is, we are weaker, more likely to become emotionally disturbed, or make mistakes.

Biorhythm devotees claim that we can use our knowledge of what phase we are in to compensate for low periods; that is, we can be more careful, undertake less demanding tasks, or avoid strenuous activities, etc. Whereas, on the other hand, we could take advantage of our peaks by scheduling appropriately challenging activities.

With the advent of the computer, it is an especially simple matter to compute and graph the three fundamental biorhythm curves. Inspection of the curves allows one to see which days are critical. We recently received an unsolicited offer for an individualized biorhythm computer printout for a one year price of \$3. This might have very well been one of those instances in life where, "You get what you pay for." ... not that we thought there would be anything wrong with the computer calculations. Rather, the

real question was whether or not the information would be of any use.

Let's take a closer look at the evidence for these biorhythms and the predictions made from them.

The evidence is varied, and we have categorized it as follows: (1) analogies, (2) case studies, (3) correlational studies, and (4) experiments.

EVIDENCE FOR BIORHYTHMS

Analogies and extrapolations. Many writers argue that just because some biorhythms have been verified, and because they are so prevalent in plant and animal life, that this proves the existence of other rhythms. Granted that the existence of biological cycles increases our confidence in the feasibility of other rhythms, it is still a speculative hypothesis. Reasonable hypotheses have turned out to be false when tested.

The three biorhythm cycles in question may exist, but logically and scientifically, it is necessary to demonstrate them in their own right. Actually, we should be skeptical rather than optimistic because as of yet, no known animal cycle operates with the degree of precision and invariance as has been claimed for these three biorhythms.

Case Studies. Believers in biorhythms frequently attempt to bolster their arguments and convince others by reporting case studies which are consistent with the theory. With respect to athletes, they attempt to show that people who were successful were at biorhythmic high point, and that those who failed were at a critical

day. For instance, Gittelson, in his book, *Biorhythm Sports Forecasting*, presents some interesting case studies. In boxing, Ken Norton shattered Muhammad Ali's jaw on March 31, 1973. Ali's biorhythms were near critical for both physical and emotional cycles. The reverse was true when Ali met Joe Frazier in Manila. Ali was on a physical high while Frazier was at his lowest physical point. Consequently, according to Gittelson, Frazier's defeat was reflected in biorhythm terms.

Points out that when Ken Norton and Muhammad Ali's jaw on March 31, 1973, Ali's biorhythms were near critical for both physical and emotional cycles. The reverse was true when Ali met Joe Frazier in Manila. Ali was on a physical high while Frazier was at his lowest physical point. Consequently, according to Gittelson, Frazier's defeat was reflected in biorhythm terms.

points out that when Ken Norton and Muhammad Ali's jaw on March 31, 1973, Ali's biorhythms were near critical for both physical and emotional cycles. The reverse was true when Ali met Joe Frazier in Manila. Ali was on a physical high while Frazier was at his lowest physical point. Consequently, according to Gittelson, Frazier's defeat was reflected in biorhythm terms.

points out that when Ken Norton and Muhammad Ali's jaw on March 31, 1973, Ali's biorhythms were near critical for both physical and emotional cycles. The reverse was true when Ali met Joe Frazier in Manila. Ali was on a physical high while Frazier was at his lowest physical point. Consequently, according to Gittelson, Frazier's defeat was reflected in biorhythm terms.

points out that when Ken Norton and Muhammad Ali's jaw on March 31, 1973, Ali's biorhythms were near critical for both physical and emotional cycles. The reverse was true when Ali met Joe Frazier in Manila. Ali was on a physical high while Frazier was at his lowest physical point. Consequently, according to Gittelson, Frazier's defeat was reflected in biorhythm terms.

biorythmically high but performed low, or were biorythmically low but performed high.

Some supporters who discover negative instances argue that the individuals involved would have done even worse (or better) as the biorythmic state. Of course, biorythmics are not directly determinable to prediction. One must be able to independently determine biorythms - rather than use the theory as the "explanation" for this or that. This is impossible to prove the theory wrong. All scientific theories must be falsifiable in other words, be capable of being proved wrong.

Correlational Studies. The relationship between biorhythms and behavior (if they exist) may simply be coincidental rather than causal. Just because two events consistently happen at the same time, this is no proof that one causes the other. A third variable may be causing both, or perhaps what one thinks is the cause is really the effect. That is, failure may very well cause impaired body functions and success may improve physiological functioning rather than the other way around. Also, with respect to coincidence, biorhythm researchers frequently loosely interpret the critical periods - using a 48 hour period rather than the indicated 24 hour period.

Experiments. One of the most widely cited instances of the use of biorhythms involved the Ohmi Railway Company in Japan. In an analysis on both sets of rhythms and the lifters' daily workouts, interestingly, the results revealed a high correlation for the pseudo-biorhythms indicated a low pseudo-physical period. We then gave the lifters what they believed were their real rhythms, but in reality were the pseudo-biorhythms. (It should be noted that the lifters were not aware that there were two sets of rhythms.) After three months, we ran an analysis on both sets of rhythms and the lifters' daily workouts. Interestingly, the results revealed a high correlation for the pseudo-biorhythms (.84) and only a moderate correlation (.61) for the real biorhythms. Thus, it was clear that a placebo effect was occurring.

CONCLUSIONS

Is it reasonable to suggest that such complex processes as strength, emotion, and intelligence are regulated by invariant biological mechanisms? We think not. Assuming this runs counter to clearly established facts which show that learning, social conditioning, and life events exert a powerful influence. Or, are we to assume that even the rewards and punishments which come to us are also synchronized with the same cycles? Even if such biorhythms were invariant and important, left unanswered is the question about how heavily they should be weighed. In other words, what magnitude of effect is to be expected? All too often, biorhythm advocates seem to ignore other variables.

In the current findings, we feel that it would be foolish for a lifter to postpone his competition just because his biorhythm chart indicated a critical day. Unless, of course, in his own mind he was so convinced of the overriding importance of biorhythms that a very high expectation would be self-fulfilling.

Now Baby. Ten & Chip Hultquist were recently blessed with John Victor, 7 lbs. 7/16 oz. Chip swears he saw him doing a pushup the other day.

the number of pitches thrown for strikes versus those thrown for balls, etc. No matter what criterion we used, we found no relationship strong enough to be used as a predictor of athletic performance.

Later, we conducted two studies using P.A.U. powerlifters. In the first study, we had 24 novice powerlifters calculate their own biorhythms and then we correlated these rhythms with their daily performance. The results of the study revealed an extremely high relationship (.89) between biorhythms and lifting performance. This suggested that the biorhythms were a valid predictor of performance. But in the second study we did something a little different. This time, we had 31 novice powerlifters, but instead of letting them calculate their own biorhythms, we computed them. In fact, we calculated two sets of rhythms - a true set for each lifter and a pseudo-set. The pseudo-biorhythms were computed so that they would read directly opposite of the true rhythms. For instance, when the lifter's true rhythms indicated a high physical period, the pseudo-biorhythms indicated a low physical period. We then gave the lifters what they believed were their real rhythms, but in reality were the pseudo-biorhythms. (It should be noted that the lifters were not aware that there were two sets of rhythms.) After three months, we ran an analysis on both sets of rhythms and the lifters' daily workouts. Interestingly, the results revealed a high correlation for the pseudo-biorhythms (.84) and only a moderate correlation (.61) for the real biorhythms. Thus, it was clear that a placebo effect was occurring.

CONCLUSIONS

Is it reasonable to suggest that such complex processes as strength, emotion, and intelligence are regulated by invariant biological mechanisms? We think not. Assuming this runs counter to clearly established facts which show that learning, social conditioning, and life events exert a powerful influence. Or, are we to assume that even the rewards and punishments which come to us are also synchronized with the same cycles? Even if such biorhythms were invariant and important, left unanswered is the question about how heavily they should be weighed. In other words, what magnitude of effect is to be expected? All too often, biorhythm advocates seem to ignore other variables.

In the current findings, we feel that it would be foolish for a lifter to postpone his competition just because his biorhythm chart indicated a critical day. Unless, of course, in his own mind he was so convinced of the overriding importance of biorhythms that a very high expectation would be self-fulfilling.

Now Baby. Ten & Chip Hultquist were recently blessed with John Victor, 7 lbs. 7/16 oz. Chip swears he saw him doing a pushup the other day.

RECEIVE A FRUIT LIFTING SUIT **FREE** WITH THE PURCHASE OF A **WOMAN PUMP**



MAGNUM

CONFORMS TO THE STANDARDS:
2000 (17 1/2" x 11 1/2" x 11 1/2") DIAMETER
2200 (17 1/2" x 11 1/2" x 11 1/2") DIAMETER
2400 (17 1/2" x 11 1/2" x 11 1/2") DIAMETER
2600 (17 1/2" x 11 1/2" x 11 1/2") DIAMETER
6 1/2" - CENTER HOLE

HEAT TREATED FOR MAXIMUM STRENGTH
WILL ADJUST TO ANY COMPETITION WEIGHT
SIZES AVAILABLE
FULLY WARRANTED

\$225**

PEALER - IMPROVES WELOUSE

Custom GYM EQUIPMENT
PUMP MAPS
FRUIT LIFTING SUITS

TIM ELDRIDGE
(212) 462-7046
BILL WOFFORD
(212) 462-8801

RESELEN FORMER
LEE E. ROSEN
EL MONTE, CALIF. 9172

February 13th, 1982
Virginia Open Bench Press Meet
Trophies 1st thru 5th places
114 thru Super

Masters Division (over 40)
1st thru 5th by Formula

March 13th, 1982
Virginia Open No. 11
Open, Novice, Masters & Female
Team Awards
Best Lifter Awards

For more info, call or write
WILLIE MORRIS, BOX 5
STANARDSVILLE, VA 22973
phone 804-985-7660
Tues., Thurs., Sun., evenings only

ABSOLUTELY NEW!

SQUATMASTER

IT KNOWS WHEN YOU'RE PARALLEL WITH ELECTRONIC ACCURACY!

THINK

WHAT RUNS THROUGH YOUR MIND TOWARD THE BOTTOM POSITION OF YOUR SQUAT? IF YOU'RE LIKE ME, YOU'RE ASKING YOURSELF, DEEPER? DEEPER?

THIS IS WASTED CONCENTRATION!

IF YOU'RE ALSO LIKE ME, YOU END UP GOING PAST PARALLEL TO MAKE SURE.

THIS IS WASTED POWER!

DON'T WASTE NEEDED ENERGY AND CONCENTRATION. LET SQUATMASTER DO THE THINKING SO YOU CAN CONCENTRATE ON WHAT'S REALLY IMPORTANT - DRIVING THAT BAR THROUGH THE CEILING!!!

ADVANTAGES

FREES YOUR MIND FOR MORE POWER.

TAKES THE GUESSWORK OUT OF THE FULL SQUAT.

LIGHTWEIGHT—WEIGHS ONLY 3 OZ.

SMALL AS A PACK OF CIGARETTES.

ATTACHES AND DETACHES FROM SUPERSUIT INSTANTLY.

ADJUSTABLE FOR ANY DESIRED DEPTH ABOVE AND BELOW PARALLEL.

NO NEED FOR A TRAINING PARTNER OR MECHANICAL STOPS (WHICH CAN BE AWARD) TO INSURE A PARALLEL SQUAT.

ORDER FORM — PLEASE PRINT

NAME _____ SQUATMASTER WITH BUZZER \$27.50

ADDRESS _____ ELEMENT

CITY/STATE _____ ZIP _____ SQUATMASTER WITH \$32.50

CHECKS PAYABLE TO RICHARD OHL SOLID STATE ELECTRONIC ELEMENT

MAIL TO: SQUATMASTER
P.O. BOX 5564
PEORIA, IL 61603

NOT RESPONSIBLE FOR DAMAGE TO SUIT DUE TO IMPROPER USE

ALLOW 2 TO 6 WEEKS FOR DELIVERY

The SQUAT

A Comparative Study of Champion Squatting Styles

by Training Editor, Ron Fernando

If any of the readers of PL USA have access to, or are the owners of older magazines such as Iron Man's Lifting News or the older Muscle Power mags during the early years of Powerlifting, they could be astonished at the change of squatting styles since those early days. Then, the better than average Olympic lifters would usually excel in the squat because of the leg strength derived from heavy clean and snatch recoveries. Then, the power squat as we know it today, was primarily unheard of; coaches would tell their charges to put the bar high on the back, etc. etc. One of the best advocates of using total body recoveries was the great Doug Hepburn. He stated that the power squat was in the hips and the glutes and the body would respond if the feet were placed wider and the bar put lower in the back. People listened and obediently the American record squat began to climb. At this time also, the use of heavy wraps and 'extra aids' began in earnest. Reliable sources (Bob Squisly/Packer) told me that the lifters of the late 60's used a squatting outfit that makes a super suit look like a diaper. Heavy, heavy shorts made out of SAIL material, not of the kind that's been marked down but the actual stuff that helps propel big schoolers! The shorts were heavily stitched and faced up the front. Usually the lifter wore either double or triple sewn ace bandages (sometimes more than one on each knee). The extreme tightness imparted on these lifter's bodies combined with the wide, wide stances used then resulted in a hell of a lot of shallow squats. Many of the so called records of those days would never be passed today because of the much stricter interpretation of where the mystic 'parallel' line is. Some of the fine stylists in those days were Peanut West, George Frenn, Len Ingro and Russ Fletcher. Fletcher was probably the first lifter to do a legal 800 squat by 'officially' standards when he sat absolutely rock bottom with 810 at the 1970 Seniors. Footwear was about the same as today - about half using regulation lifting shoes (the old York red and white type) or high top basketball shoes. Jon Cole was one of the best exponents of the 'stretch reflex' method (crash and bounce) system using a lot of lower back. I remember attending a seminar in Tucson given by Cole during the time when he was claiming to be the 'Worlds Strongest Man'. He stated quite succinctly that one's squat could be improved by



Enrique Hernandez was a successful exemplar of the Olympic style squatter. *Wainnabe photo*

power style squats. You can't argue with his results! Larry Kidney is another lifter who stresses perfection of technique - his recent 881 squat was a picture perfect number - tight 'cooling' of the hips, a slight stop of the knees after the initial dip and then whammo - 3 white lights and a 2,160 total. Mike Bridges has perhaps the best natural leverages in terms of insertion/origin/placement, height, bone structure, etc. His 'Bridges flare' may not work for everyone, but if you have the proper physical equipment, you will usually see a marked improvement in the lift. Mike does emphasize the use of a lot of stretching moves (burler's stretch, etc.) to loosen up the hip area so that the correct depth can be achieved.

Of course, not everyone has the luck to be born a Bridges or a Phillips but certain general rules can be derived from all the years of hit and miss technical analysis on the squat.

1. One must closely evaluate one's physique to determine if a wide, medium or narrow stance be taken. Very few lifters can get by solely on the narrow stance - only the smaller lifters such as Joe Cunha or Chuckie Durrbar can do so. Through the years, extremely wide squatting has been phased out in favor of a more moderate wide stance. The hip flexors here great, but as judging gets strict, depth becomes much more difficult.



The lessons that Jon Cole learned are still being utilized by today's Powerlifters. *Carl Johnson photo*



2. The descent should be controlled with the lifter employing the quick dip only when the crease at the hip 'breaks' with the upper body.

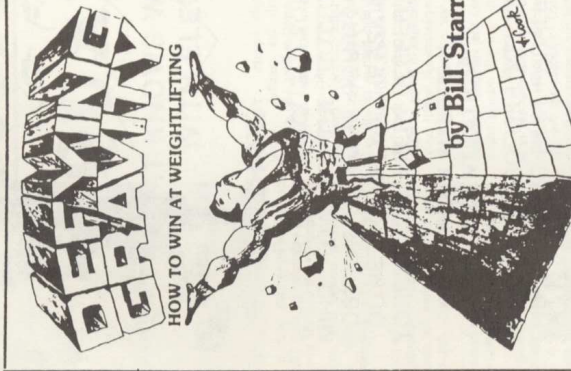
3. Excessive use of the lower back as a hinge could be a deterrent to ultimate squat power. The development of the abdominals and the proper use of the suede power belts will insure a more upright position during the descent.

4. Generally speaking, most of today's champions use the lifting gear suit, 'heavy wraps' on their heavy day only and this only when contest time is near. Sweats, shorts and loose wraps can be used for the lighter days.

A word about reps: as the squat evolved into a virtual science, the philosophy of reps sets changed accordingly. In the early days the old 5-4-3-2-1 system was in vogue. Actually, this system was an all out bid as it was mini-cycle and of itself, but gave the lifter no rest building repetitions. Along came the 5x5 system which is the forerunner of the bulking theories of the 60s and early 70s. The problem with that was that rarely if ever did the lifter exert all of his or her energy equally on all five of the sets. Today a lot of lifters are using the 'inverted pyramid' where they will warm up with lower reps to the top weight of the day and then grind out 5 to 8 reps with it. This saves the energy for the crucial heavy set.

Lifters in general are more interested in approaching the sport as a science, and not as a heave-ho contest as it was in the old days. As the weights begin to climb ever further upwards, you will see more and more emphasis on technique as opposed to pure bulk-like strength. Additionally, stretching is being given more importance for pure injury prevention reasons.

A Major New Book Especially for LIFTERS!!



BILL STARR, champion lifter and former National Powerlifting Record holder, presents the NEW book, **DEFYING GRAVITY, How to Win at Weightlifting**. Bill Starr will tell you how to win the lift, plan your training, and talk to you, the lifter, as only one who has been there can do. Look at what you'll find inside:

- Total Preparation for your next contest
- Sex and the Barbell/Pre-Contest Nutrition
- Making Weight/Warming Up/Lifting Strategies
- Biorythms/Warming Up/Lifting Strategies
- and much, much MORE!

Dr. Ken Leistner, Feature Editor of PL USA Magazine, says 'It's informative, enjoyable, and above all else, it is the real thing.'

To receive your copy of **DEFYING GRAVITY, How to Win at Weightlifting** by Bill Starr, write your Name, Address, and Zip Code in the coupon provided below; enclose a check payable to **POWERLIFTING USA** for \$7.95 PLUS \$1.00 postage & handling (\$11.95 for hardback edition); cut out the coupon and send it out right away to:

POWERLIFTING USA Magazine
Box 467, Camarillo, California 93011

PS...this limited First Printing will go fast, Order Now!

NAME _____ PHONE _____
 ADDRESS _____ CITY _____ STATE _____ ZIP _____
 WEIGHT _____ HEIGHT _____ CHEST _____ HIPS _____ LEGS _____
 COLOR CHOICE _____ SECOND _____ SIZE _____ TRAINING STRAPS _____
 KNEE WRAPS _____

(Overseas orders include \$3.00 additional per book for air mail delivery)
 (Allow 6 weeks for delivery/California residents add 6% sales tax)

SOUTHERN COLORADO CHAMPIONSHIP

10/17/81-PUEBLO, CO
 CLEARFIELD, PA
 POWER DAY IV
 10/24/81

WOMEN-105	SO	BP	DL	T
H. Eris	155	95	240	480
H. Nunez	230	105	290	585
F. Fox	215	90	250	505
J. Pail	180	105	220	505
M. Castro	265	130	270	665
J. Estrada	210	115	240	565
R. Clementi	185	95	250	530
C. Skardstad	170	100	240	510
T. Konecny	330	240	400	970
D. Dehart	330	225	405	960
J. Duran	305	250	385	920
V. Virgilio	285	175	385	815
R. Roman	375	250	385	815
D. Gonzalez	325	160	405	880
P. Fahn	185	165	380	830
J. Harris	400	240	480	1120
M. Padilla	315	225	405	945
D. James	335	225	405	945
E. Wulfsberg	415	305	565	1285
B. Gonzalez	430	320	520	1275
B. Cunningham	500	270	500	1270
J. Gonzalez	525	290	440	1035
T. Torres	165	95	240	480
M. Machin	315	225	405	945
R. Rodriguez	335	225	405	945
J. Hinds	560	320	535	1415
J. Thompson	400	300	520	1220
L. Storer	450	320	520	1275
M. Caldwell	485	320	520	1275
N. Sullivan	500	320	520	1275
D. Vahrech	385	315	525	1225
K. Krueger	405	270	475	1130
B. Navarro	395	270	465	1140
G. Colton	580	335	625	1540
S. Sava	425	275	540	1240
F. Hawkins	425	275	540	1240
R. Carlson	530	385	695	1520
S. Mesery	500	425	500	1225
T. Team award	1. Pueblo Elite Club, 2. Colo. Springs			
G. Colton, best lifter man; E. Wulfsberg, best class; F. Miller, best lifter woman; J. Cottonne, Team trophies; Presque Isle Powermen-Erie, Elizabeth Ross, best class.				
Southern Colo. records: A special thanks to our records since it is the 1st time we have established M.C. Mr. Bill Stewart. Bill did a fantastic job on the lifters. Head judges were Dan James from Colo Springs and Larry Castro from Pueblo, Colo. Larry is my business partner in the Elite Health Club, 622				

Thank to Alan Siegel for results.
 Big Vegas Meet. Ken Trujillo's Nevada Open has entries from Utah & others. Ken welcomes any available international refs also.

ROYALTY HOUSE

BOX 1211

OKLAHOMA CITY, OK 73101

DISCOUNT PRICES from Dick Burke's Mail Order Company on York, Champion, Universal, MAC (Image barbells, equipment, & barbells shipped to you. Write for FREE catalogue or call 805/942-5608. The York Power Bar is available in pounds of 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120, 130, 140, 150, 160, 170, 180, 190, 200, 210, 220, 230, 240, 250, 260, 270, 280, 290, 300, 310, 320, 330, 340, 350, 360, 370, 380, 390, 400, 410, 420, 430, 440, 450, 460, 470, 480, 490, 500, 510, 520, 530, 540, 550, 560, 570, 580, 590, 600, 610, 620, 630, 640, 650, 660, 670, 680, 690, 700, 710, 720, 730, 740, 750, 760, 770, 780, 790, 800, 810, 820, 830, 840, 850, 860, 870, 880, 890, 900, 910, 920, 930, 940, 950, 960, 970, 980, 990, 1000. Address is 3721 N.W. 25. Visa and Master Charge accepted by mail or phone.

198 CHAMPIONSHIPS

10/17/81-N. MIAMI BEACH, FL

CLASS	SO	BP	DL	T
A. Conyers(BL)	530	400	575	1505
E. Milnes	470	350	500	1220
S. Johnson	400	320	500	1220
G. Bell(BL)	580	385	595	1540
J. Galarza	460	380	570	1330
M. Brown	600	405	540	1545
V. Diaz	600	350	580	1530
J. Hines	525	395	565	1485
R. Stockton	440	255	500	1190
T. Thomas	380	310	500	1190
J. Williams	320	285	422	1000
K. Swenney	335	295	425	1010
D. Lombardi	505	370	585	1460
D. Whelan	480	360	530	1385
G. Terhune	450	360	530	1385
B. Dierker	425	360	515	1325
V. Pickover	480	330	480	1260
V. Martin	400	270	475	1245
M. Brown	600	405	540	1545
V. Diaz	600	350	580	1530
J. Hines	525	395	565	1485
R. Stockton	440	255	500	1190
T. Thomas	380	310	500	1190
J. Williams	320	285	422	1000
K. Swenney	335	295	425	1010
D. Lombardi	505	370	585	1460
D. Whelan	480	360	530	1385
G. Terhune	450	360	530	1385
B. Dierker	425	360	515	1325
V. Pickover	480	330	480	1260
V. Martin	400	270	475	1245
M. Brown	600	405	540	1545
V. Diaz	600	350	580	1530
J. Hines	525	395	565	1485
R. Stockton	440	255	500	1190
T. Thomas	380	310	500	1190
J. Williams	320	285	422	1000
K. Swenney	335	295	425	1010
D. Lombardi	505	370	585	1460
D. Whelan	480	360	530	1385
G. Terhune	450	360	530	1385
B. Dierker	425	360	515	1325
V. Pickover	480	330	480	1260
V. Martin	400	270	475	1245
M. Brown	600	405	540	1545
V. Diaz	600	350	580	1530
J. Hines	525	395	565	1485
R. Stockton	440	255	500	1190
T. Thomas	380	310	500	1190
J. Williams	320	285	422	1000
K. Swenney	335	295	425	1010
D. Lombardi	505	370	585	1460
D. Whelan	480	360	530	1385
G. Terhune	450	360	530	1385
B. Dierker	425	360	515	1325
V. Pickover	480	330	480	1260
V. Martin	400	270	475	1245
M. Brown	600	405	540	1545
V. Diaz	600	350	580	1530
J. Hines	525	395	565	1485
R. Stockton	440	255	500	1190
T. Thomas	380	310	500	1190
J. Williams	320	285	422	1000
K. Swenney	335	295	425	1010
D. Lombardi	505	370	585	1460
D. Whelan	480	360	530	1385
G. Terhune	450	360	530	1385
B. Dierker	425	360	515	1325
V. Pickover	480	330	480	1260
V. Martin	400	270	475	1245
M. Brown	600	405	540	1545
V. Diaz	600	350	580	1530
J. Hines	525	395	565	1485
R. Stockton	440	255	500	1190
T. Thomas	380	310	500	1190
J. Williams	320	285	422	1000
K. Swenney	335	295	425	1010
D. Lombardi	505	370	585	1460
D. Whelan	480	360	530	1385
G. Terhune	450	360	530	1385
B. Dierker	425	360	515	1325
V. Pickover	480	330	480	1260
V. Martin	400	270	475	1245
M. Brown	600	405	540	1545
V. Diaz	600	350	580	1530
J. Hines	525	395	565	1485
R. Stockton	440	255	500	1190
T. Thomas	380	310	500	1190
J. Williams	320	285	422	1000
K. Swenney	335	295	425	1010
D. Lombardi	505	370	585	1460
D. Whelan	480	360	530	1385
G. Terhune	450	360	530	1385
B. Dierker	425	360	515	1325
V. Pickover	480	330	480	1260
V. Martin	400	270	475	1245
M. Brown	600	405	540	1545
V. Diaz	600	350	580	1530
J. Hines	525	395	565	1485
R. Stockton	440	255	500	1190
T. Thomas	380	310	500	1190
J. Williams	320	285	422	1000
K. Swenney	335	295	425	1010
D. Lombardi	505	370	585	1460
D. Whelan	480	360	530	1385
G. Terhune	450	360	530	1385
B. Dierker	425	360	515	1325
V. Pickover	480	330	480	1260
V. Martin	400	270	475	1245
M. Brown	600	405	540	1545
V. Diaz	600	350	580	1530
J. Hines	525	395	565	1485
R. Stockton	440	255	500	1190
T. Thomas	380	310	500	1190
J. Williams	320	285	422	1000
K. Swenney	335	295	425	1010
D. Lombardi	505	370	585	1460
D. Whelan	480	360	530	1385
G. Terhune	450	360	530	1385
B. Dierker	425	360	515	1325
V. Pickover	480	330	480	1260
V. Martin	400	270	475	1245
M. Brown	600	405	540	1545
V. Diaz	600	350	580	1530
J. Hines	525	395	565	1485
R. Stockton	440	255	500	1190
T. Thomas	380	310	500	1190
J. Williams	320	285	422	1000
K. Swenney	335	295	425	1010
D. Lombardi	505	370	585	1460
D. Whelan	480	360	530	1385
G. Terhune	450	360	530	1385
B. Dierker	425	360	515	1325
V. Pickover	480	330	480	1260
V. Martin	400	270	475	1245
M. Brown	600	405	540	1545
V. Diaz	600	350	580	1530
J. Hines	525	395	565	1485
R. Stockton	440	255	500	1190
T. Thomas	380	310	500	1190
J. Williams	320	285	422	1000
K. Swenney	335	295	425	1010
D. Lombardi	505	370	585	1460
D. Whelan	480	360	530	1385
G. Terhune	450	360	530	1385
B. Dierker	425	360	515	1325
V. Pickover	480	330	480	1260
V. Martin	400	270	475	1245
M. Brown	600	405	540	1545
V. Diaz	600	350	580	1530
J. Hines	525	395	565	1485
R. Stockton	440	255	500	1190
T. Thomas	380	310	500	1190
J. Williams	320	285	422	1000
K. Swenney	335	295	425	1010
D. Lombardi	505	370	585	1460
D. Whelan	480	360	530	1385
G. Terhune	450	360	530	1385
B. Dierker	425	360	515	1325
V. Pickover	480	330	480	1260
V. Martin	400	270	475	1245
M. Brown	600	405	540	1545
V. Diaz	600	350	580	1530
J. Hines	525	395	565	1485
R. Stockton	440	255	500	1190
T. Thomas	380	310	500	1190
J. Williams	320	285	422	1000
K. Swenney	335	295	425	1010
D. Lombardi	505	370	585	1460
D. Whelan	480	360	530	1385
G. Terhune	450	360	530	1385
B. Dierker	425	360	515	1325
V. Pickover	480	330	480	1260
V. Martin	400	270	475	1245
M. Brown	600	405	540	1545
V. Diaz	600	350	580	1530
J. Hines	525	395	565	1485
R. Stockton	440	255	500	1190
T. Thomas	380	310	500	1190
J. Williams	320	285	422	1000
K. Swenney	335	295	425	1010
D. Lombardi	505	370		

★★★ MIKE MACDONALD SYSTEMS ★★★★★
presents

TOP QUALITY FORMULAS AT 20 PER CENT BELOW HEALTH FOOD STORE PRICES

SUPER STRESS
Sustained Release
B-12 5000 mcg
Sustained Release
Super C 2000 mg
Sustained Release
Vitamin E 1000 IU

Dyno Vites (Ultimate Vitamin Mineral formula)
Ascorb-a-Minerals
Sustained Release
Mega Zinc 1000 mg
Sustained Release

NATURAL FAT BURNING FORMULAS
Trimplex (Lecithin, kelp, B-6, and Apple Cider Vinegar formula)
Lipo Vite (choline, inositol and methionine formula)
Betaine Hydrochloride 600 mg (for improved digestion)
Amino Pro Instant beverage, 90% Pro (delicious carb taste and easy mixing)

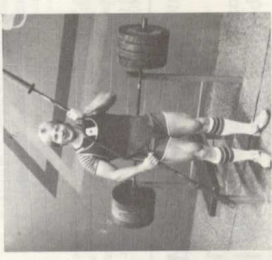
*** B-15 ***
(original Russian formula)
30% more stamina and Lowest Price
1000 tabs 38.50
500 tabs 20.50
300 tabs 13.50
100 tabs 5.50
99.9% pure undiluted top quality (non industrial grade)

8 oz. 12.50
16 oz. 23.50

RAW GLANDULAR FORMULAS GROWTH WITHOUT DRUGS
Stero-Glan, 5 tabs provide: pituitary 150 mg, adrenal 150 mg, liver 150 mg, pancreas 150 mg, kidney 150 mg, heart 150 mg, bee pollen 75 mg, yeast 200 mg

250 tabs 14.50
500 tabs 26.00
1000 48.50
2000 89.50

Argentina Beef Liver
20 grain plus B-12
Adrenal 150 mg
Orchic 150 mg (raw testicle)
Pancreas 650 mg
Pituitary 35 mg
Prostate 130 mg
Spleen 250 mg
Thymus 140 mg
Heart 140 mg



For the Ultimate in Bench Pressing Blast-Off Power, Pectoral Development, and Tricep Lockout Power.

35 lb. Olympic Style Bar\$125 postpaid
20 lb. Regular Style Bar \$75 postpaid
45 lb. Olympic Style Bar (rotating ends) \$250 postpaid
Sent UPS COD Accepted

**MIKE MACDONALD SYSTEMS
302 WEST CENTRAL ENTRANCE
DULUTH, MINNESOTA 55811**

Build Natural Power
Have a Long Career
call me at (1-218-722-4053)
Postage Paid on orders \$50.00 and up
(others add \$2.00 handling cost)

181 G. Bell* 620 375* 625 1620P
4th 400

198 D. Donham 620 450R 550 1620
*best lifter: R - state record:
Highlights: women: 105 lb. Sandra Sims,
132 lb. Tammy Walden, 150 lb. Tammy Walden
squat and matched the state record in the DL, 123
class. Tammy Walden coasted to a win, leaving at
least 20 lbs on the platform in both the squat and
deadlift. She was a very strong woman with a
physique and beauty contests and is an outstanding
example of the results of women's weight
training. 195 class: Mary Dorman, a local "Mud
broke into the top 100 in squat, bench and total.
196 class: Eric Jackson, in his 1st meet,
broke into the top 100 in squat, bench and total.
197 class: Eric Jackson, in his 1st meet,
broke into the top 100 in squat, bench and total.
198 class: Eric Jackson, in his 1st meet,
broke into the top 100 in squat, bench and total.
199 class: Eric Jackson, in his 1st meet,
broke into the top 100 in squat, bench and total.

WOMEN-105
S. Sims 165 85 225 475
L. Carney 185 100 230 515
T. Marino 190 100 ---
123 J. Walden* 200 110 255 595
J. Walden* 205 100 225 530
132 J. Walden* 135 75 200 410
J. Heinrich 155R 90R 225R 470R
M. Dorman 315 175 275 765
MEN-NOVICE 114
E. Jacobson 260 20 340 810
Perz 325 275 350 950
C. Branson 295 185 290 800
148 S. Snell 385 235 465 1085
190 J. Dorman* 465 315 500 1380
T. Thomas 400 325 500 1225
K. Collier 400 230 425 1055
18 J. Dorman 425 305 475 1205
J. Bibby 445 245 450 1140
M. Walden 400 300 385 1085
199 J. Dorman 530 330 510 1370
D. Dorman 450 315 420 1215
R. Smith 390 365 460 1215
E. Quarry 350 300 450 1100
J. Dag 550 380 525 1455
W. Stephens 385 245 400 1010
242 J. Dorman 560 340 565 1465
T. Penardis 540 360 500 1400
C. Banson 450 350 475 1275
275 J. Dorman 530 350 580 1450
R. Hennes 300 255 350 905
CLASS 1-123
K. Snell 260 200 360 820
S. Johnson 460 315 515 1290

GHC
Greenville Health Club
221 White Oak Rd.
Greenville, S. Carolina 29609

Super Suits - Wraps
Chalk - \$6.00 lb.
York Power Sets & Extra Plates
Lifting Belts
Deadlift Slippers - \$6.50 pr.
Universal Gyms in stock

1-803-268-5203
(since 1975)
Mike Apps or Mike Hawkins

TEXAS POWER BAR

the TEXAS Power Bar is a Maintenance Free Bar and it is the First Bar to be registered with the I.P.F.!

Used in the 1981 Senior National Championships and the 1981 Teenage National Powerlifting Meet.

MAC TEXAS POWER BAR \$172.50

Write For Catalog

MAC BARBELL EQUIPMENT
1601 N.W. Dallas • Grand Prairie, Texas 75050 • 214-263-4828

MAC TEXAS POWER BAR

MAC TEXAS POWER BAR \$172.50

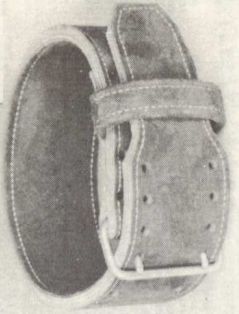
Write For Catalog

MAC BARBELL EQUIPMENT
1601 N.W. Dallas • Grand Prairie, Texas 75050 • 214-263-4828

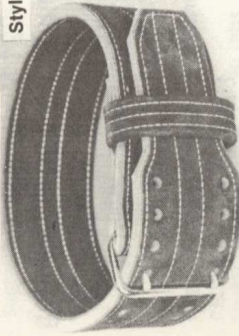
Pat's Power Products

124 East State Street, West Lafayette, IN 47906
Ph. Office: 812-753-4639; Shop: 317-743-3481

Style 1 Stitching



Style 2 Stitching



MODEL NUMBER	NO. OF LAYERS	TYPE COVERING	APPROXIMATE THICKNESS	BUCKLE PLATING	BUCKLE WIDTH	STYLE STITCHING	BELT PRICES
2N1	1	Nat.	7-mm	chrome	2"	none	24.00
3N1	1	Nat.	7-mm	chrome	3"	none	28.00
3S1	1	Suede	9-mm	chrome	3"	1	42.00
4N1	1	Nat.	7-mm	zinc	4"	none	31.00
4N2	2	Nat.	11-mm	zinc	4"	1	51.00
4N3	2	Nat.	13-mm	zinc	4"	1	61.00
4N2C	3	Nat.	11-mm	zinc	4"	2	55.00
4N3C	3	Nat.	13-mm	zinc	4"	2	65.00
4N2CD	2	Nat. Dyed	11-mm	chrome	4"	2	71.00
4N3CD	3	Nat. Dyed	13-mm	chrome	4"	2	81.00
4S1	1	Suede	10-mm	zinc	4"	1	54.00
4S2	2	Suede	12-mm	zinc	4"	1	64.00
4S3	3	Suede	13-mm	zinc	4"	1	74.00
4S1C	1	Suede	10-mm	chrome	4"	2	60.00
4S2C	2	Suede	12-mm	chrome	4"	2	70.00
4S3C	3	Suede	13-mm	chrome	4"	2	80.00
4S1CD	1	Suede } with insert	10-mm	chrome	4"	2	69.00
4S2CD	2	Suede } color	12-mm	chrome	4"	2	79.00
4S3CD	3	Suede } color	13-mm	chrome	4"	2	89.00

- All belts except Model No. 2N1 have double prong buckles.
- Fifteen colors of Sueded offered: Black, Navy blue, Royal Blue, Brown, Rust, Light blue, Light green, Gold, Red, Gray, Purple, Maroon, Light brown, Dark Green and Sand.
- All belts are 100-mm wide and IPF and USPF legal.
- Stitching Style 1 is one time around belt; Style 2 is two extra rows.
- All sales out of United States add 10% for postage.
- Postage included on sales in United States.
- No COD orders please.

NAME _____ PHONE _____

ADDRESS _____ CITY _____ STATE _____ ZIP _____

MAIN COLOR _____ COLOR INSERT _____

MODEL NO. _____

WAIST SIZE _____

ON COD models only

the PERFECT Gift!

A Powerlifting USA Magazine Subscription Certificate will bring 12 feature-packed issues to your favorite person. Good for New or Renewal subscriptions. Purchase yours now, \$15 to Box season now, \$15 to Box 467, Camarillo, CA 93011



EDWARD S. HUDSON MEMORIAL PL MEET-11/7/81

114-NOVICE	SO	BP	DL	T	
G. Humphries	117.5	50	125	292.5	275
T. Hughes(I)	117.5	60	122.5	300	292.5
K. Swander(I)	122.5	65	155	342.5	332
R. Guinet	127.5	105	---	---	---
148-OPEN	218.5	105	325	582.5	582.5
F. Cortes	197.5	145	207.5	550	550
T. McDonald	177.5	135	192.5	505	505
T. Urnie	182.5	92.5	195	470	470
J. Wakoni	210	130	237.5	577.5	577.5
W. Reilly	222.5	120	227.5	570	570
P. Roberts	205	127.5	227.5	560	560
P. Johnson	205	110	230	535	535
P. Jolley	195	110	230	535	535
P. Furrow	187.5	115	227.5	510	510
S. Montgomery	137.5	147.5	200	485	485
R. Alonzo	157.5	127.5	200	485	485
R. Alonzo	155	97.5	182.5	435	435
G. Kearns	157.5	260	682.5	---	---
R. Howell	200	155	250	655	655
W. Herzer	245	142.5	250	637.5	637.5
J. Luginmann	190	155	240	625	625
J. Allen	190	155	240	625	625
R. Swall	205	150	242.5	597.5	597.5
R. DeTommaso	192.5	175	220	587.5	587.5
J. Burg	220	147.5	235	582.5	582.5
R. M. M. M.	215	122.5	217.5	555	555
C. Arpock	200	120	215	535	535
W. Dinnem	160	180	200	540	540
R. M. M. M.	150	137.5	187.5	475	475
198	200	200	715.0L	---	---
D. Burrell	260	182.5	227.5	650	650
J. Murray	260	182.5	227.5	650	650
E. Blitck	250	132.5	265	647.5	647.5
P. Fincher	227.5	150	257.5	635	635
A. Meyer	215	182.5	227.5	625	625
R. Shambarger	235	155	235	625	625
H. Heister	207.5	150	257.5	615	615
G. Chabot	230	142.5	237.5	610	610
D. Roastel	220	140	222.5	582.5	582.5
D. Jones	200	105	227.5	532.5	532.5
R. Wadley	277.5	182.5	267.5	727.5	727.5
S. Lumpe	260	155	272.5	687.5	687.5
G. Charlton	255	145	267.5	687.5	687.5
D. Swell	250	185	250	685	685
K. Kondetisky	257.5	200	265	722.5	722.5
B. Ship	245	170	265	690	690

National Meet Qualifying Totals

Senior Nationals	Junior Nationals	National Collegiate	Teenage Nationals (14-15)	Teenage Nationals (16-17)	Teenage Nationals (18-19)
114	1008	903	672	800	852.25
123	1179	1030	837	899.25	955.5
132	1267	1135	959	793.5	1032.25
148	1388	1333	1146	953.5	1101.75
165	1581	1421	1256	1021.5	1128
181	1770	1521	1350	1012	1227.75
198	1780	1542	1421	1000.5	1269.5
220	1868	1719	1455	1076.75	1439.75
242	1956	1725	1455	1105.25	1325.5
275	2055	1890	1455	1186	1439.75
SHW	2105	1852	1499	935	1243.75

Record Update...since the Washington State records were published in the October issue of PL USA, Thomas Stillman informs me that John Cao has squatted 415 and that Mr. Stillman has bench pressed 275, deadlifted 495, and totaled 1160, all of which exceed previously listed marks.

YMCA Nationals!!!
Saturday
Jan. 9, 1982

Garry Benford
Columbus Central YMCA
40 W. Long St.
Columbus, Ohio 43215
(614)-224-1131



1982 National Collegiate Powerlifting Championships
Men's and Women's Division
March 19 and 20, 1982
Henderson Center
Marshall University
Huntington, West Virginia
For information contact:
Joe Pendley
306 Brown St.
Ravenswood, W.V. 26164
304-736-4361

Former World Champ, Rickey Dale Crain, will be putting on a seminar.

PHYSICS

of the

ELITE SUIT

* REDESIGNED *

We said the suit was scientifically designed - here's why

THE MATERIAL - special heavy duty polyester contains no elastic to rot or stretch out. The finish of the material prevents any biting in on the straps or legs. Virtually rip proof.

THE PATTERN - designed originally and exclusively for Powerlifting by a World Record holder. Not a converted wrestling suit as seen on the market. Because of unique stretch properties of the fabric, the suit is cut so that the most stretch is horizontal, the least vertical. This allows you to put the suit on easier, yet offers the most supportive resistance while squatting.

The Elite Suit does not give a false sense of security. While other suits are tight only at the straps or seams, the Elite Suit has extra material taken out of the hips and legs to **really support**.

THE CROTCH - engineered at the University of Texas Physics Lab, the "saddle seat" offers the ultimate in stress distribution in the crotch. The back seam spans across the butt from leg to leg, to eliminate sharp corners that cause blowouts.

THE GUARANTEE - unconditionally guaranteed for 3 months from shipping date against ripping or defects in workmanship.

BUY ELITE - IT MAKES SENSE \$38.00

(plus \$1.50 postage)

sizes 26-40 in Black, Navy, and Red. Team prices on orders of 8 or more. Give height and weight info, 1st and 2nd choice of color.

SALE: Old Elite Suits \$20.00 while supply lasts!!

(38-40 only)

ELITE

ELITE SALES, INC. POST OFFICE BOX 17711 AUSTIN, TEXAS 78760 (512) 441-7993

ELITE COMPETITION WRAPS \$8.50

Designed specifically for Powerlifting competition and training. Due to synthetic materials used, these wraps **WILL NOT RIP**. When squatting, the wrap stretches to the bottom position and then stops stretching - essential for an explosive start. The best on the market!

ELITE Wraps are guaranteed for ONE YEAR!

SPECIAL : SUIT AND WRAPS \$43.00

LEATHER GRIP \$6.00

Special formula designed to help the Powerlifter keep his grip. No more tender hands, no more torn callouses. Three weekly applications will toughen skin, build and harden callouses, and keep you hanging on to those heavy deadlifts.

GYM BAGS \$17.50

Heavy duty canvas with rust proof zippers and side pocket. United States Powerlifting Federation insignia. Bag is 9 in. by 21 in. Available in red or blue.



ELITE SALES OFFERS THE LIFTER THE FINEST IN SERVICE, AS WELL AS COMPETITIVE EQUIPMENT

- ↑ All items in inventory, sent air mail -- no waiting
- ↑ VISA/MASTERCARD accepted. Include number and exp. date
- ↑ C.O.D. orders by mail or phone
- ↑ Express Mail Delivery (24 hour) if requested. Freight collect.

Make payable to **ELITE** Sales, Inc.

WEST COAST OFFICE

P.O. Box 9950

San Jose, California 95157
(408)-378-2148

IMPORTANT

Include \$1.50
postage
PER ITEM

MAIN OFFICE
P.O. Box 17711A

Austin, Texas 78760
(512)-441-7993