

Powerlifting USA

VOL.8
NO.6
JAN/85
\$2.95



World Powerlifting Championships XIV

PACIFICO ENTERPRISES

OFFER EVERYTHING FOR THE POWERLIFTER

- Super Suit 10 (Marathon).....29.95
- Super Suit (Marathon).....29.95
- Super Wrap II.....6.00, 40 pr./\$5 ea.
- Super Wrap III.....6.00, 40 pr./\$5 ea.
- Dean Best Belts Any color suede.....60.00
- Leather.....50.00
- Single Leather.....22.00
- Hand Lifting Straps.....6.00, 2/\$11, 3/\$15
- Lifting Tiger Gloves.....11.95
- Pacifico 3 Hour Video Tape.....74.95
- Pacifico Courses Complete Set.....16.00
- Power High Top Shoes.....40.00 **SAVE \$14.95**
- Waist Waister S,M,L,XL.....9.00 2/\$17, 3/\$24
- 84 Senior Tapes...Day 1/50.00, Day 2/50.00
- Both Days.....95.00

We have the fastest delivery in the business.

Call for C.O.D. orders: 1-800-392-5496

Ohio Residence 513-898-7245

or send to:

P.O. Box 14152
Dayton, Ohio 45414

FLASH
Super Wrap 10
Now Available
\$13.00 or 3/\$35.00
One year guarantee

Add \$2 for postage per order.

FLASH
Super Suit 10
1 for \$29.95
2 for \$49.90
3 for \$74.85

PE PACIFICO
ENTERPRISES
SINCE 1976

INZER POWER SHIRTS

Scientifically designed by John Inzer, multiple American record holder including a 722 deadlift at 163 pounds bodyweight.



Vince Anello
 "After wearing the Inzer Powershirts only a few times, I am very much impressed... very pleasing results!"

Gene Bell
 "... Helped me tremendously with my lifting. A much needed product!"

Wayne Bouvier
 "The greatest T-shirt I've ever worn"

Jim Cash
 "I cannot say enough about this shirt. I am very pleased."

Ernie Frantz
 "... Excellent protective measure against injury. I've had great success benching with this shirt."

Dave Jacoby
 "Amazing results! I don't compete without it"

Gil Thompson
 "... Especially good for the added confidence and tendon strength gained with use during my workouts. The Inzer Powershirts are one thing... SUPER!"

Dennis Wright
 "It's really unbelievable! I recommend this product to anyone!"

- New easier sizing. Sizes 38 to 64 in even sizes. If you are certain of your shirt size, please indicate. For accurate fit, send relaxed measurements of the following:

Shoulder circumference _____
 Chest _____ Arm _____
 Please indicate 1st and 2nd color choices. TURQUOISE BLACK FUCHSIA RED

- I.P.F. Approved
 - Improved Quality
- Please send \$36 plus \$2.00 shipping and handling (We accept Check, M.O., C.O.D., MC or VISA)

Name _____
 Phone _____
 Address _____
 City _____ State _____ Zip _____
 Overseas orders welcomed—add 10% surface freight or 20% air freight. Texas resident add 5% sales tax.

Worn internationally in competition. Made of the highest quality T-Shirt knit.

INZER POWER SHIRTS
 P.O. Box 2981
 Longview, Texas 75606
 214/236-4012

U.S. Patents Pending

Powerlifting USA

Post Office Box 467
 Camarillo, CA 93011

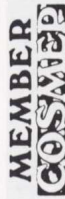
Editor-in-Chief: Mike Lambert
 International Editor: Andy Kerr
 Feature Editor: Dr. Ken Leistner
 Training Editor: Ron Fernando
 Research Editor: Dr. Tom McLaughlin
 Sports Medicine Editor: William Taylor M.D.
 Subscription Services: Jean Lambert
 Graphics/Layout: Diane Littell
 Statistician: Herb Glosbrenner
 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 0199-8536) is published monthly for \$21 per year. The office is located at 1000 N. D-216, CAMARILLO, CA 93010. 2nd class postage paid at Camarillo, CA 93010.

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

Subscription Rates: (US funds only)
 USA & Canada, 1 yr.\$21.00 US
 USA & Canada, 2 yr.\$39.50 US
 First Class Mail, 1 yr.\$36.00 US
 Foreign, Surface Mail....\$28.00 US
 Foreign, Air Mail.....\$50.00 US



COMMITTEE OF SMALL MAGAZINE
 EDITORS AND PUBLISHERS
 BOX 706 SAN FRANCISCO, CA 94101

POWERLIFTING USA advertising rates available upon your request.

TABLE OF CONTENTS

Volume 8, Number 6 • January, 1985

WORLD CHAMPIONSHIPS.....Ron Fernando.....7
 WORLD CHAMPIONSHIP SCORECARD.....8
 WORKOUT OF THE MONTH.....Troy Hicks.....14
 NATURAL TRAINING METHODS.....John Kuc.....15
 MEDITATION, PART II.....Judd Biasotto PhD.....16
 ALCOHOL AND ATHLETES.....William Taylor MD.....17
 MORE FROM KEN LEISTNER.....Dr. Ken Leistner.....18
 NUTRITION CORNER.....Jack Digangi R.D.....20
 WOMEN'S CORNER.....Ruthi Shafer.....22
 PRESIDENT'S MESSAGE.....Dr. Conrad Cotter.....23
 GRIP & ARM POSITION.....Tom McLaughlin PhD.....24
 QUESTION AND ANSWER.....Roger Estep.....25
 STRENGTH.....Donald R. Macchia PhD.....26
 TOP 100 MIDDLEHEAVIES.....E. Jean Lambert.....27
 U.S.P.F. CLASSIFICATION AWARD APPLICATION.....34
 CLASSIFICATION REPORT.....Nate Foster.....35
 RECORDS CHAIRMAN REPORT.....Nate Foster.....35
 REFEREE MESSAGE.....Nate Foster.....35
 DRUG FREE TOP 20 123s.....Jim Gallagher.....40
 CLASSIFIED ADVERTISEMENTS.....40
 1985 U.S.P.F. REGISTRATION APPLICATION.....41
 NATIONAL MEET QUALIFYING TOTALS.....41
 WHO'S WHO IN POWERLIFTING.....Diane Littell.....41
 COMING EVENTS.....56

ON THE COVER....World Championship Gold Medal

NEXT MONTH....Herb Glosbrenner's All Time 800 lb. Squatter list, and loads and loads of training articles!

© 1984 Powerlifting USA
 Reproduction of this magazine, in whole or part, is prohibited without written consent.
 Opinions expressed herein are those of the writer only, and may or may not be in agreement with P. USA.

POWERLIFTING USA Magazine

ALL PURPOSE SUBSCRIPTION FORM

Name _____ State _____ Zip _____
 Address _____
 City _____

YES! SIGN ME UP!
 Check one:

- NEW
 RENEWAL
 Address Change

\$21.00 for 12 monthly issues.
 \$39.50 for 2 years.
 Payable to: Powerlifting USA,
 Box 467, Camarillo, CA 93011.



ERNIE FRANTZ PRESENTS

WORLD FAMOUS FRANTZ CUSTOM MADE SQUAT SUITS
 Only \$35.00 ★ Order Today



ED COAN: Ernie your suits have held up through my most toughest workouts - time and time again! Thanks for all the help and thanks for a 766 lb. squat.

Call 24 hrs. a day
 (312) 892-1491
 YOU'LL BE GLAD YOU DID!



DOUG FURNAS: With my large thighs I have problems with a suit, but now what a suit! It has special thigh support at the bottom to spring you out of the hole. Thanks for a 887 lb. squat!

REPAIRS ★ FREE ALTERATIONS
 Colors: Navy - Black - Red - Lt. Blue

Send height, weight, thigh and waist measurements. Other suits say they hold up - and say they DON'T blow out - but we know they DO! Here at Frantz we take care of you - we have tailors working 24 hours a day - just in case you need your suit in 24 hours.

We guarantee our SUITS & FAST SERVICE.
 Call us today and give the Frantz Suit a try!

We don't just say its world famous, IT IS, just ask around!



Scientifically designed to be a **COMPLETE MIX** to work for **MUSCLE MASS** and **strength with STEROIDS.**

The best tasting protein ever made! It's like a banana Chocolate Milk Shake 26 years in formulation, this is the first powerlifting protein on the market.
 1 lb. \$8.50 5 lbs. \$35.50
 (\$2 postage and handling)
DEALERS WELCOME!

ERNIE FRANTZ:
 2 Times Runner up Mr. O.S.A.
 2 Times Mr. Powerlifting Champion.
 is available for seminars, demonstrations and clinics.

New 1984 Design Special Frantz Wrap
 We're in the age of 900 to 1000 lb. squats - and I know that I want my knees protected to the max. This new wrap is the best - I guarantee you'll increase your squat power!

Only \$10.00
Don't squat without them!

Deadlift Shoes CUSTOM MADE
 Rubber grit soles - no slip bottom for big deadlifts.
 Black, blue, white, beige.
Only \$3.25
 +.50 shipping.
Don't pull the big one without a pair!

Deadlift Straps
 NO-SLIP
 Extra Strength for Big Pulls.
\$4.75

USPF AMPF/APF PATCHES



Red, white, blue/gold trim.
Only \$3.00
 +.25 postage.

Power Belts
 3 ply - maximum thickness
 Blue Suede
 Nickle Double Buckle
 Best Out! - **Only \$75.00**

Ernie's Workout Log Book
 Spiral Bound
 Log a full year of workouts in this new unique book.
Only \$6.95

Super Chalk
Only \$7.00 per lb.
 or 1.25 per block.

Frantz Bench Suit
 Custom Made • Navy or Black
 Don't bench without this suit.
 No binding - No restrictive qualities.
 "The most sharp looking and comfortable bench suit I have had," Larry Pacifico.
Don't bench without this great suit!
 Send height, weight and color choice.
Only \$39.00

Frantz Powerlifting Gloves
 Designed for Powerlifting by Ernie. All leather with good padding only in the places you need it. You need it! (sizes: S-M-L-XL)
Only \$12.95 per pair.

order from
ERNIE FRANTZ STUDIO
 21 NORTH BROADWAY
 AURORA, ILLINOIS 60504
 Gym 312-892-1491

★ Next Day Packages Our Specialty ★
 Schools - Gyms - Stores - Call For Wholesale Catalog.
 ★ \$1.50 Postage and Handling on all orders. ★

Call Us Today
 CALL IN YOUR ORDER
 MASTERCARD VISA / C.O.D.

The 14th World Championships

by Ron Fernando, Training Editor

The 1984 World Powerlifting Championships were held in the Big "D", Dallas, Texas; a near last minute changeover from Austin when hotel arrangements in that city fell through. Even if you don't consider that situation, meet promoter John Pettit did an outstanding job of bringing together hundreds of athletes and spectators from all over the world, putting an outstanding venue together, which was first class in terms of presenting top level athletic performance, and inviting the major powerlifting vendors to serve the current and future needs of the lifters attending the competition. John mentioned that he had been planning this meet in the back of his mind, ever since the 1980 championships in Arlington, Texas. One of the highlights of the meet was the largest scoreboard ever seen at a powerlifting competition, which kept the entire crowd apprised of the standings throughout the various stages of competition.

One aspect of the meet was disappointing to me, and that was the attendance. The majority of the spectators during the three days of lifting seemed to be lifters or their families. There were not that many paying spectators. The Dallas Cowboys played on Thanksgiving Day and thus did not distract the public from the championships, but Dallas is a big, sophisticated sports town, and

it is hard to get and maintain attention for a relatively new and unknown sport. I'm not sure what exactly the financial results were, but I am quite certain that no one made a big killing on this meet. (Editors note: I understand that John broke even by about \$40, but he still had some t-shirts to sell off.)

Be that as it may, when the best in the Powerlifting world get together at this kind of meet, many egos have to fall. There were lots of surprises this year in the World Championships, and much speculation surrounded the USA team, which had 9 new faces on it since last year. In the 52 kilo weight class, however, they had one of their standbys, Chuck Dunbar. Chuck has always been the bridesmaid in this weight class to the famous Inaba of Japan, but when I saw him the day before he lifted, he told me Inaba was apparently injured. We discussed over dinner the possibilities of the situation. Chuck knew that Inaba would do as well as he could because he was an honorable athlete and the Japanese desire not to lose face in an adverse situation. It reminded me of the incident in a previous Olympic Games where a Japanese gymnast heroically finished out the competition with a broken leg. Inaba spent most of the days prior to the meet with acupuncture needles cushion with apuncture needles

and heavy taping. Reportedly, he had been bench pressing in training and some plates had slid off the bar, with the result being a severely irritated bursa and a pinched nerve in his neck that affected him all the way down through his arm. I heard from my friend Hiro Isagawa that Inaba planned to open a scant 60 kilos or so in the bench press and realized that this would put a lot of pressure on him and finally crack open the door for Chuckie, a door that had been closed on all flyweights for ten successive championships. Sure enough, even though Inaba took a lead in the squat over Chuckie, who had what I consider one of the worst squatting days of his career, he had to take a 65 kilo "back seat" to Dunbar in the bench press. This brought it down to the deadlifts. Chuck was way out in front, but we all knew he needed to pull at least 418 in order to totally cement the victory. He looked good in the warm up and his opening attempt of 391 was very solid, with 3 white lights. His subsequent attempts at 418 were turned down, apparently for knee lock. After the final miss, he was miserable, abject, and went backstage crying. Basically, he had decided the championship had been lost. Inaba started out with 485 and mastered it comfortably. Perhaps a formal interpreter for the Japanese team could have helped at this point, because Hideaki needed only 496 to beat Dunbar, but instead he took 501. The first attempt got 9 tenths of the way up, but just before he locked out, he stepped backwards and lost it. His injury was bothering his lockout. His final attempt barely cleared the floor. Dramatically, Dunbar was the world champion and was ecstatic with joy, whereas 5 minutes prior he was practically sobbing in



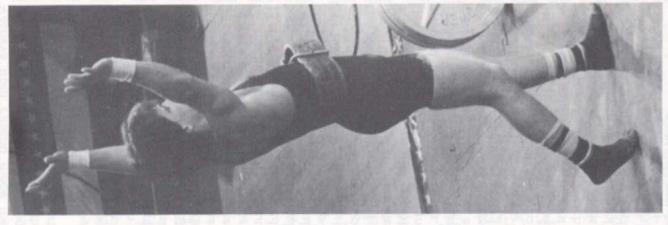
Ten Times Lamar Cant has pulled his way into a World Pl. title.

disconsolation. Notice was served, however, that Inaba is still a force to be reckoned with. He lifted with one arm, so to speak, and only lost the championship by 5 kilos. He will be back. Elsewhere in this weight class, Jeff Madson of New Zealand twice attempted a world record 518 deadlift and had it up very easily only to lose it at the top. He has been training with Fred Hatfield in California and perfected Fred's leap just prior to the deadlift, which he claims helps him immensely in focusing all his energy on the initial pull. He finished with a strong 490 kg for an easy third place. The 52 kg class was fairly competitive, although contenders like John Maxwell of Gt. Britain and Tuomisto of Finland were missing. Joe Cunha, from the USA, is still a major threat despite his recent personal difficulties. If these athletes all get together next year, we could have some stellar lifting.

The 56 kg weight class saw the only two successful world record attempts of the championships, and they were two beautiful bench presses by Hiro Isagawa of Japan with 330 and 336 respectively. Lamar Gant, of course, was our entrant and he came through once again, but this time mostly on the virtue of being a lighter athlete. He squatted a rather tough 468, and 253 was all he could manage in the bench press. Lamar has been a promoter of drug free lifting, and the recent Sports Illustrated article about him emphasized not only his drug free stance but his non-meat eating habits, etc. as well. Actually, his totals have dropped considerably since 1980 when he was the Strength Athlete of all Strength Athletes, but a world championship is a world championship; you can't fault him for that. My opinion is that Lamar's back is starting to give out from the strain

Left...Hiro Isagawa rinned up 2 record benches. Wallace photo.





World Championship titles in a row now.

In the 67.5 kg class one of our newest US stars, Danny Austin, was pitted against the wily veteran Eddie Pengelly, former champion Stefan Nentis and world deadlift record holder Valineva, and others from Europe. Danny was extremely confident, very cool and completely coached by Doyle Kennedy and his several assistants. He took a 10 kg lead in the squat, extended it with 162.5 kg bench press, then precisely motored a very easy 639 lb. deadlift to total 722.5 kg, which is not that far away from the world record. Danny is a

60 kg class since the retirement of Joe Bradley, but these lifters will continue to improve and their lifts obviously will go up. Other interesting lifters in this weight class include Luciano Delara of France, who won the 1984 World Masters championships in Europe. He was probably the most emotional and vocal participant in the competition, not only as a lifter but as a coach. Unfortunately, in this class we saw our first bombout in the person of Nelson Sleno of Canada, whose new "quick dip" style of squatting did not satisfy the judges.

mel of Belgium pulled a credible 578 deadlift to outdistance veteran Kuller-Lampela of Finland. The Finns came in a force to be reckoned with. They had a good mixture of veterans and young athletes that will serve as a solid foundation for future European and World championships in Australia. He was probably the most emotional and vocal participant in the competition, not only as a lifter but as a coach. Unfortunately, in this class we saw our first bombout in the person of Nelson Sleno of Canada, whose new "quick dip" style of squatting did not satisfy the judges.

showing in the squat and deadlift and balanced lifting in the bench press. Goran has a perfectly compact physique for this weight class. It doesn't look like he has to do a lot of reducing to get down to the class limit. He and his coach made an interesting pair, because his coach is the massive Lars Hedlund, towering over him by about a foot, and outweighing him by at least 200 lbs. Eddie Van Wem-

we should see some stronger lifting from both of them at the next World Championships in Helsinki, Finland. The 60 kg class was the only weight class in which the US did not have an athlete and thus it was an opportunity for some of the younger athletes from Europe to shine. Goran Hennerson, the defending champion, from Sweden, outdistanced his opponents by 7.5 kilos, with a strong

few years, but seems to have fallen off the mark a bit. I sincerely believe that it's been the retirement of Narenta Bhairo of Great Britain that has caused the pause in Phil's progress. Goran always the outstanding squatter and deadlifter, used to inspire Phil to extend himself more. I talked to some of the members of British team and apparently Bhairo may be coming back next year, so

of all those heavy deadlifts of the last ten years, 550 should have been a rep weight, but it wasn't. 600 barely cleared the floor. He had confided to me earlier that he had pulled a 659 weighing considerably over 132 lb. class limit, so the stress of bodyweight lifting could have contributed somewhat to his diminished pulling power. Bhairo lifted beautifully with only slight misses on his 3rd attempt squat and deadlift. He opened up his benches with 308 and his next 3 attempts rocketed up, including a 4th attempt 341 which was turned down for uneven extension. I expect that we will slowly but surely see Hiro overtake Gant's longtime superiority in this class. He has a very solid body structure for the class, good for all three lifts, and once his recent back injury heals completely, his squats and deadlifts will get moving again. His bench presses will continue to soar and we will see more big records from him. One of the big surprises of the meet and this weight class was India's first bronze medal in the person of P. J. Joseph. Joseph was been a solid performer for the last 5 years, and here he managed a beautiful 540 pound deadlift to ice down his third place performance. Manojit Bose, India's team manager in Dallas, and an administrator of the Indian Powerlifting Federation called Joseph the greatest lifter India has ever produced. We should all take note that India is now a hotbed of Powerlifting with over 700 million people in the country and thousands of people interested in the sport. Before long, we will see even more quality lifters from India, throughout the weight divisions. Phil Stringer and Kamath of India rounded out the top weight class. Phil has been a top competitor for Great Britain the last

Table with columns: Name, Country, DL1, DL2, DL3, Total, and other stats. Includes lifters like H. BARON - FR, L. WACHTER - SW, B. WADDELL - AL, etc.

Table with columns: Name, Country, Bwt, SQ1, SQ2, SQ3, BP1, BP2, BP3, ST, DL1, DL2, DL3, Total. Includes lifters like D. AUSTRIN - US, E. NENGELY - GB, K. ELSON - IC, etc.

Table with columns: Name, Country, Bwt, SQ1, SQ2, SQ3, BP1, BP2, BP3, ST, DL1, DL2, DL3, Total. Includes lifters like G. BELL - US, G. WASZKIEL - AL, E. COPPIN - BE, etc.

When this 48 deadlift wasn't passed, Chuck Dunbar thought for sure that Inaba would beat him again.



VIDEO TAPES

1984 IPF World Powerlift Championships Video

VIDEO - VIDEO - VIDEO

□ VHS or BETA □

- Tape 1: \$50, 52, 56, 60, 67 1/2, 75kg
- Tape 2: \$50, 82 1/2, 90, 100, 110, 125, 125 + 2kg
- Both Tapes, Special Price: \$95

(lifters, state your weight class)

Send cashiers check or money order payable to:

Lelay Publishing Co.

3601 Casa de Sol

Dallas, TX 75228 U.S.A.

214-681-3422

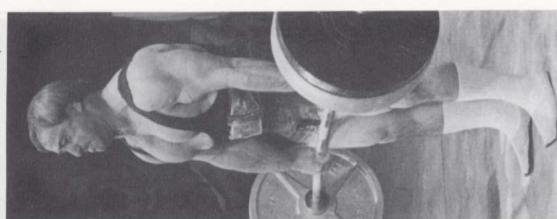
Add \$10.00 for postage and handling overseas

U.S. orders add \$3.00 postage and handling

U.S. currency/Please allow 4-6 weeks delivery

(Detach and return this ad)

Dennis Wright...a decade and a half of great lifting, topped off with the title of "I.P.F. World Champion".



really did look like an old time Viking, with his thick beard, quiet countenance and massive strength. He works in a herring factory, sorting out bad smelling fish from the good smelling fish all day. Try that kind of work and lift weights afterwards; it's not easy, folks.

The 125 kilo weight class saw a long string of United States winners. John Gamble was the winner in our 1984 Senior Nationals. Chaillet fell behind 15 kilos in the squat as Wolter, the tall Netherlands lifter, powered up an 804 pounder with such ease that it made one consider the possibility of another 20 kilos on the bar. He added further to his lead with 225 kg bench and cemented it with a 355 kg DL. Mark tried a massive 848 pounds to overtake Wolters on his 2nd attempt, but could pull it 3/4 of the way up and no more. Mark is usually good for one big pull a meet, and couldn't do better on his next try. He has nothing to be ashamed of because he got beaten by an excellent lifter. In my opinion a true star of Powerlifting was born in the person of Ab Wolters at these championships. Brulois of France, Nevanpaa of Finland, and Terry Young of Canada battled for the remaining places. Unfortunately, Steve Zetolofsky of Great Britain was a bombout. Steve was ready and I think he would have taken either



I win!...Coan really put on a show.

the third and final lifter on the Japanese team that had been decimated by injuries. He made an excellent squat at 337.5 kg, but fell behind on the bench when he only managed 380. He did put a scare in everyone, when he tried a massive 733 pound deadlift to overtake Wright, but it wasn't to be on that day. Dave Caldwell and Eamon Toal of Great Britain finished 3rd and 4th respectively. Dave is a massively built lifter with a bodybuilder type physique, who has come back from a serious back injury to return to international prominence. Eamon has been an extremely steady performer for Great Britain over the years. They are tough competition for themselves and all others in the U.K., although if Steve Alexander decides to go up there would likely outcall them. An interesting note in this class is Janos Nemeshazy of Switzerland. He placed 6th here, and has also done very well in Olympic lifting, snatching 155 kg and clean and jerking 195 kg. He said that he has given up the sport of olympic lifting to concentrate on Powerlifting because of his 'advanced age', 30. Some other fine lifters in this class were Roux of France, O'Grady of Ireland, and Buchs of France. He is the French champion, but he bombed out here. Johnny Persson of Sweden started too high as well. We all missed the presence of last year's world champ Ken Mattson from Sweden, who was absent due to recurring injuries.

The 100 kg class offered the closest competition in this World Championships between Jim Cash of the United States and Tony Stevens of Great Britain. Tony was in the best shape I have seen him in the last 5 years. He was ready for battle. He did everything he could, but on the last successful deadlift of the session, Jim Cash pulled that magnificent 810 pounds he needed to overtake Tony. He even tried a massive 843 lbs which came about 2 inches from completion. This year Jim showed such fine sportsmanship that he was designated by the team to accept the team championship award. Another Szafranski of West Germany in 3rd place and young 4th place finisher Dino Toi of Australia. He tried a big deadlift than even Cash made and should be a strong finisher in the years to come as he gets his squat and bench press moving. Jari Tahminen of Finland, Shane Blood of Australia, and Monstere Pollet of France rounded out the class, the latter lifter having a very heavily built physique.

In the 110 kilo weight class, Dave Jacoby of the United States completely outdistanced the competition. He was probably the most muscular of the US lifters, and reminded one of a bit of another super lifter, Ed Coan, with his red hair and mild mannered demeanor. All of his squats were strongly done, as were his bench presses and he finished with a beautiful 350 kg deadlift to outcall DL machine Mark Savage of Great Britain. Saarelainen exemplifies the typical Finnish lifter, dour, quiet,



Gene Bell...carried the pride of hundreds of military lifters worldwide.

the competition, he deadlifted the same 688 that Alexander got. These two should fight it out again at the Europeans and also in the next world's for 2nd and 3rd place. I'm sorry, Steve, but I think the USA will have 1st place locked up again. There were some rugged veterans in this weight class among them Johansson of Norway and Bruce Waddell of Australia, who was a bombout this year. This weight class suffered from some very strict judging. (Editor's note: we understand many of the refs were for knee lock, which was not obvious to the audience, who repeatedly booed the decisions). An interesting sight was the Lasnier of France on the victory stand (awards were presented through 5th place), who touched everyone as he was moved to tears during the awards ceremony.

The 90 kilogram class saw the return of veteran United States lifter Dennis Wright. This year he told me before the meet he was planning to retire afterwards, regardless of what transpired at the contest. He came through beautifully, however, missing only one squat and one bench press. He finished all his deadlifts and sailed out ahead of his competition by a margin of nearly 50 pounds. Surprisingly enough, second place went to Maeda of Japan,

tating, so when I saw him up on the platform, I was shocked, and I was even more shocked to see him wrapping his opposite arm around the squat bar as if he was a polio victim. I found out he had a torn biceps and could hardly put any weight on that arm, however, he still planned to deadlift by reversing his normal grip. His lifting was a study in courage, as he was performing purely for team points with little realistic chance of placing. Once Dr. DiPasquale's arm comes back, we should find him against knocking heads with the top 3 in the middleweight division. He combines years of lifting experience, brute strength, and a background as a physician to help him through the injuries and to discern between good and bad training cycles. Here again there were some good newcomers. For example, Tony Granert from Australia, a former bodybuilder, looked and lifted great. I he puts on weight and goes up a class or two, he could do very well for his country. Gordon Hansuld of Canada had the highest bench press of the competition in this weight class at 402 lbs. He is built perfectly for the bench, and with additional improvement in the squat and DL should improve his overall placing in the next World Championships. The USA is always very deep in this weight class. With such athletes as Rickey Crain, Gene Bell and a host of others, it's been one to pop out of nowhere, it's been one of our strongest weight classes of recent times.

The light-heavyweight class was one that many were eagerly waiting to see, simply because it was the debut of Ed Coan of the United States. Many had heard of Ed after he valued himself into popularity through his victories in the YMCA

Nationals and Senior Nationals, and his world record exceeding deadlift. There is talk of a possible matchup between Ed Coan and Mike Bridges in next year's Senior Nationals. I certainly hope that comes off because we would see more than a couple of tons of weight being tossed around by these two great lifters. Ed was extremely confident. By next year he should post a World Record total, and that will be an achievement to be remembered for a long, long time. This year he did an 875 kg total, which in pounds added up to over 1900, and he came up with a gutsy 749 squat and a world record breaking 793 deadlift, to go along with his fine 440 bench, but those lifts were not passed for some minor reason.

Second and third place was a very hotly contested battle between former world champion Steve Alexander of Great Britain and fast rising Jarmo Viranen of Finland. It was a tough call on the squat that robbed Alexander of a 305 kg attempt and the choice of a lesser weight on his 3rd deadlift than he needed to overtake Viranen, that kept him from pressuring the Finn more intensely. Viranen is a Junior World Record breaker, who was well ahead of his previous bests in the squat. He drove up an easy 185 kg bench and utilized probably the highest back arch of

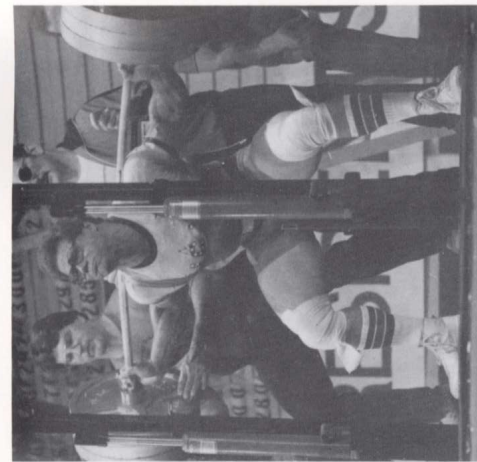
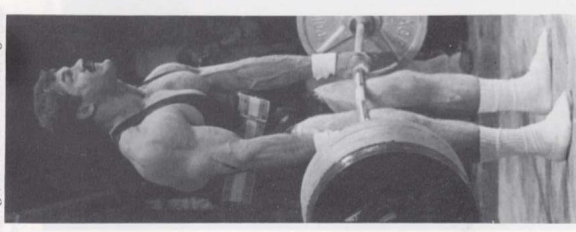


Dan Austin was the personification of control on the lifting platform.

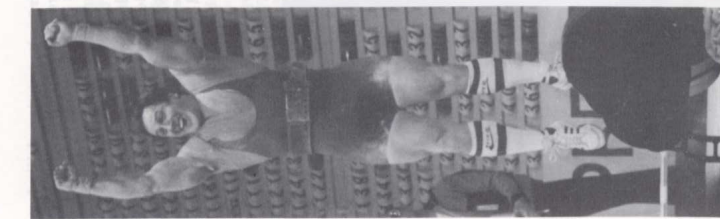
2nd or 3rd in this competition, but his squats were all red lighted. Very few of the people that I talked to noted an infraction of the rules. He was heard to threaten a few of the officials after the competition at the banquet in his own good natured way.

The Superheavyweight class saw Lee Moran of the United States not as a mere colossal debut. Lee is not as tall as the other lifters, but his height, but his strength is definitely in the right places. He told me when we had dinner, eight days before the meet that he is thinking of pursuing a professional wrestling career and he definitely has the maintenance and attitude to do so. He is very good friends with top pro wrestler Big John Studd, who now claims to be the world's strongest squatter after training that Lee squatted 1005 lbs. and Lee is considering switching to professional wrestling for financial reasons. He lifted well under his capabilities. He has one of the big 1003 squat. He tried a 903 lb squat, but felt that he hurt his back on his 1st attempt, cut it high, and got called on depth on that particular attempt. He performed the only 600 BP in the entire meet, an extremely easy one, performing well under his capabilities. This kind of controlled, capable lifting was due to the sound coaching of the U.S. lifters. There weren't any ridiculous attempts taken. World record attempts were taken only when the competition was decided or the pounds were necessary to win. I think it says a lot for coaches who guided the US lifters

Look how close Jim Cash came with a huge, world record breaking 643.



Dave Jacoby was a literal eruption of muscle mass and vascularity.



Walders celebrated each lift as if he knew from the beginning that he was destined to win the Class.

the champions they proved themselves to be. Of course, the opportunity to lift before the home crowd and not having to suffer the rigors of an overseas flight did help a bit.

All in all, it was a very interesting, and very well run championships. Although there were only 2 world records successfully completed, that's more than there were last year, and this meet was drug tested extensively to make sure the performances were legitimate. Next year's Worlds are set for Finland and I feel this is going to be an outstanding lifting venue, although it is cold and damp over there. I hope to be out there reporting for PL USA again, and there is much to look forward to, especially the presence of more new faces, especially in the Supers and 198s, if Lee and Dennis proceed with their plans to move on to other things. There is a possibility that Ed Coan may move up a weight class, leaving the 82.5 kg division to Mike Bridges, but rumor has it that Rick Gaugler may be making a comeback in that class. We'll have to wait till next year to find out for certain, but as for this year it was an outstanding championships, with fantastic friendship and camaraderie, and memories that will never be forgotten, especially by this reporter.

World Championship T-Shirts & Souvenirs

Package Deal Number 1:

For \$10 postpaid, you will receive an official World Championship T-shirt, (S-M-L-XL) a copy of the official program for the World Championships, and a copy of the official meet results.

Package Deal Number 2:

for orders of TEN T-Shirts or more, (S-M-L-XL) and the price per t-shirt will be sensationally discounted down to only \$5 each.

order from:

1984 World Championship
Box 617
Lancaster, Texas 75146

YORK OLYMPIC SETS
140 lb. or 210 lb. set \$379.50
180 lb. or 400 lb. set \$427.50
with Texas Power Bar \$427.50

USA OLYMPIC SETS
with Texas Power Bar

210 lb. set \$389.50
400 lb. set \$447.50

TEXAS POWER BAR \$187.50
YORK POWER BAR \$205.00

ELITE DEAD LIFT BAR \$245.00

SPIN-LOK or OUIK-LOK Olympic Collars \$42.00 each

YORK SOLID DUMBBELLS \$74/lb.
USA SOLID DUMBBELLS \$85/lb.

DELUXE DUMBBELLS with Chromed & Knurled Handles

5 lb.	31.00	45 lb.	142.00
10 lb.	38.00	50 lb.	150.00
15 lb.	45.00	55 lb.	157.00
20 lb.	52.00	60 lb.	164.00
25 lb.	59.00	65 lb.	171.00
30 lb.	66.00	70 lb.	178.00
35 lb.	73.00	75 lb.	185.00
40 lb.	80.00	80 lb.	192.00

OLYMPIC DUMBBELL HANDLES with COLLARS \$120.00/pair

DELUXE DUMBBELLS with Chromed & Knurled Handles

USA OLYMPIC SETS with Texas Power Bar

USA Olympic Plates \$74/lb.
USA Olympic Plates \$64/lb.

YORK OLYMPIC SETS with Texas Power Bar

USA OLYMPIC SETS with Texas Power Bar

USA OLYMPIC SETS with Texas Power Bar

USA OLYMPIC SETS with Texas Power Bar

USA OLYMPIC SETS with Texas Power Bar

USA OLYMPIC SETS with Texas Power Bar

USA OLYMPIC SETS with Texas Power Bar

USA OLYMPIC SETS with Texas Power Bar

USA OLYMPIC SETS with Texas Power Bar

USA OLYMPIC SETS with Texas Power Bar

USA OLYMPIC SETS with Texas Power Bar

USA OLYMPIC SETS with Texas Power Bar

USA OLYMPIC SETS with Texas Power Bar

USA OLYMPIC SETS with Texas Power Bar

USA OLYMPIC SETS with Texas Power Bar

USA OLYMPIC SETS with Texas Power Bar

USA OLYMPIC SETS with Texas Power Bar

USA OLYMPIC SETS with Texas Power Bar

USA OLYMPIC SETS with Texas Power Bar

USA OLYMPIC SETS with Texas Power Bar

USA OLYMPIC SETS with Texas Power Bar

USA OLYMPIC SETS with Texas Power Bar

USA OLYMPIC SETS with Texas Power Bar

USA OLYMPIC SETS with Texas Power Bar

USA OLYMPIC SETS with Texas Power Bar

USA OLYMPIC SETS with Texas Power Bar

USA OLYMPIC SETS with Texas Power Bar

USA OLYMPIC SETS with Texas Power Bar

USA OLYMPIC SETS with Texas Power Bar

USA OLYMPIC SETS with Texas Power Bar

USA OLYMPIC SETS with Texas Power Bar

USA OLYMPIC SETS with Texas Power Bar

USA OLYMPIC SETS with Texas Power Bar

USA OLYMPIC SETS with Texas Power Bar

USA OLYMPIC SETS with Texas Power Bar

USA OLYMPIC SETS with Texas Power Bar

USA OLYMPIC SETS with Texas Power Bar

USA OLYMPIC SETS with Texas Power Bar

USA OLYMPIC SETS with Texas Power Bar

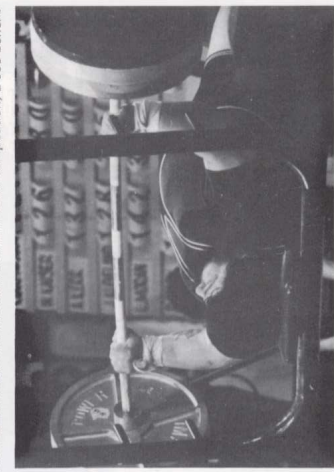
USA OLYMPIC SETS with Texas Power Bar

USA OLYMPIC SETS with Texas Power Bar

TEAM STANDINGS

United States.....	117
Great Britain.....	73
Finland.....	65
Australia.....	38
Sweden.....	36
Canada.....	31
Netherlands.....	29
Norway.....	25
France.....	27
Japan.....	25
India.....	25
Belgium.....	22
Switzerland.....	15
Brazil.....	15
West Germany.....	14
Iceland.....	10
Austria.....	9
New Zealand.....	8
Italy.....	4
Ireland.....	3

Lee Moran...made a lift seldom seen in World competition, a 600 bench.



WORKOUT of the Month

10 Week Deadlift Routine by World Record Breaker Troy Hicks

I feel you could improve your deadlift as much as 30 to 50 lbs on this routine, which assumes a 500 lb starting deadlift capability coming in. It's a 10 week cycle in which the first 8 weeks involve pure training, week 9 is dedicated to working on form and maintaining the feel of the weight, and Week 10 is for mental preparation and rest before the meet. Recommended: Stretching, Exercises - 1) Hang from chin bar with toes pointed down and 2) Lay on back touch toes to floor, and reach back over your head to stretch the lower back.

I recommend hyperextensions for conditioning the lower back. Also, standing on a box 6 inches high and doing deadlifts helps condition the lower back and I believe helps you to move the bar off the floor quicker to help get through your sticking points.

Doing lockouts with the bar at the knees with training straps, shrugs with olympic bar and t-bar rows are done to strengthen the traps and upper back for the lockout.

After the first 4 weeks drop all assistance exercises except hyperextensions, so that you don't overwork your back, which does not recover as quickly as other body parts. Do hyperextensions throughout the complete routine to keep your lower back muscles stretched and flexible.

I also think that some high bar squats should be included, as I feel they help with the drive off the floor. Consistency and hard work are the keys to achieving your goals.

Week 1:
DL: 135x8, 225x8, 315x5,
405x5, 455x5
DL (6" box): 225x5, 225x5, 225x5, 225x5
DL no rack, from knees, w/straps,
450x5, 500x5
Shrugs w/Olympic Bar: 3x225x5,
T-Bar Row: 125x5, 175x5, 225x5,
Hyperextensions: 2x25.

Week 2:
DL: 135x8, 225x8, 315x5,
405x5, 475x3
DL (6" box): 225x5, 275x5, 315x5
DL no rack, from knees, w/straps,
475x5, 515x3
Shrugs w/Olympic Bar: 3x225x5,
T-Bar Row: 125x5, 175x5, 225x5,
Hyperextensions: 2x25.

Week 3:
DL: 135x8, 225x8, 315x5,
405x5, 485x3
DL (6" box): 225x5, 275x5, 315x5,
DL no rack, from knees, w/straps,
500x5, 525x2.

Week 4:
DL: 135x8, 225x8, 315x5,
405x5, 495x3
DL (6" box): 225x5, 275x5, 315x5,
DL no rack, from knees, w/straps,
525x5, 550x3
Shrugs w/Olympic Bar: 3x225x5,
T-Bar Rows: 125x5, 175x5, 225x5,
Hyperextensions: 2x25.

Week 5:
DL: 135x8, 225x5, 315x5,
405x5, 505x3, 515x1,
Hyperextensions: 2x25.

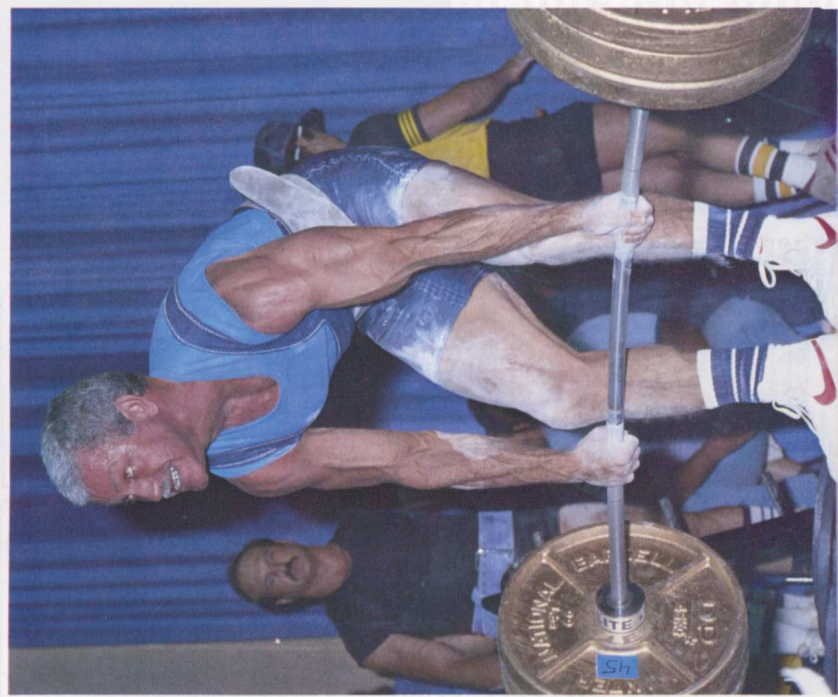
Week 6:
DL: 135x8, 225x5, 315x5,
405x3, 505x3, 525x1,
Hyperextensions: 2x25.

Week 7:
DL: 135x8, 225x5, 315x5,
405x3, 505x1, 525x2,
Hyperextensions: 2x25.

Week 8:
DL: 135x8, 225x5, 315x5, 405x3,
505x1, 525x3,
Hyperextensions: 2x25.

Week 9:
DL: 135x5, 225x2, 315x1, 405x1,
Hyperextensions: 2x25.

Week 10:
Meet Attempts: 525, 550, 565,
Hyperextensions: 2x25.



Troy Hicks (below)...set a world record of 639 pounds in the deadlift while competing as a lightweight. Now he's one of the best there is at 165.

A NEW Concept in weight training instruction. A Workout by workout, set by set, rep by rep workout plan, with exact training poundages specified over the entire span of a strength training cycle, laid out for you by a top Powerlifting Champion. Each month, a different lift is analyzed. For those at different strength levels than the starting poundage specified, simply increase or decrease the training weights in direct proportion. For example, if your lift is 400, and the starting lift for the program is 500, multiply the training poundages by .8 (400 divided by 500); if your lift is 600, multiply poundages specified by 1.2 (600 divided by 500).

TRAINING

Natural Training Methods by John Kuc, 4 Time World Champion

I have previously discussed my overall philosophy of drug free training, however, in this article I would like to delve into actual drug free training methods. Over the last few years I have found that adjustments have had to be made to my training programs. These adjustments are not mind shattering revelations, but they have proven to be very important and have to be made if you are to be successful. I feel steroids are like an unfair "equalizer". They can take an individual who has inconsistencies or flaws in his training routines and allow him to make progress in spite of these flaws. That same individual without the aid of steroids would not be able to do this.

I have found that without the use of drugs much more attention has to be paid to the intangibles. The small things that at one time did not seem too important are now proving to be very important. Perhaps important is not a strong enough word. They will make the difference between success and failure. My general training philosophies remain the same. I have always trained in the same manner. I believe in heavy weights and low rep training for all three lifts. All training is done under contest conditions. This I feel is extremely important whether you use drugs or not. When I am squatting I wear suit, wraps and belt. I am currently using Dyna Wraps, Super Suit II and a power belt of my own design. The heavy sets in the bench are all done with a pause. All deadlifting is done off the floor without the use of straps or any other type of assistance. I feel training should duplicate contest conditions as closely as possible. It is foolish to train in one manner and attempt to compete in another.

One of the biggest adjustments that has to be made when training without steroids is NOT TO OVERTRAIN. Over and over I would find myself in an overtrained condition, because I was attempting to train at previous intensity levels. This year's Drug Free Nationals was a perfect example. Two weeks prior to the contest I pulled a 825 deadlift along with 3x3 of work sets. This was basically the same time table I used when my training was drug aided. The problem was I did not fully recover by meet time. This overworked condition caused me to be red lighted for stopping on what should have been a fairly easy weight. Altering my schedule to allow for extra recovery time is a seemingly minor adjustment, but in this example it turned out to be the difference between success and failure. I made this adjustment prior to the Bedford Open in late October and pulled a fairly easy 830. If I can keep from overtraining I feel I will exceed the existing World

Record within a year. Whether you use drugs or not, the moral of this story is that we should learn from our mistakes.

Your recovery rate without drugs is much slower. When I took steroids it seemed like I could hit the heavy weights week after week. Without steroids you must allow for a longer recovery period. This is probably the single biggest benefit from drugs, the ability to train at high intensity levels for long periods of time. Without steroids your training intensity must be cut back. If you continue to attempt to train with the same intensity as you did with drugs or at the level of an individual using steroids, you will quickly reach an overworked condition. Each individual must find their own intensity level. As a non-steroid user you must use caution when analyzing different routines. Remember that you probably will not be able to train at the intensity level of a steroid aided lifter.

I have recently been using a heavy and light system that has been working well. On Monday I squat, Tuesday bench, Thursday squat, deadlift and bench. Week 1 would be heavy squats and lighter deadlifts, week 2 would be lighter squats and heavy deadlifts. This would then be repeated over and over. On the bench, since smaller muscle groups

are involved, an overworked condition is not so easily reached. Two or three heavy weeks in a row can be taken before a light week is needed. Whatever the case, the drug free powerlifter's Golden Rule should be "Thou shall not overtrain".

Almost all lifters today are into cycling. When I first began competing this term was unheard of. Cycling actually became popular concurrent with the increased use of megadoses of steroids by many athletes. Many cycles are designed to coincide with steroid intake. A drug free lifter has to be very careful not to fall into a "cycling trap". A drug free lifter can't afford to be so strict in adherence to a cycle. I know of some lifters who, if they miss one rep in the latter part of their cycle, will pass up a competition. This is absurd. When training drug free you are going to experience much wider variations in your strength level. There will be days when you are going to miss some reps. On the other side of the coin, there will be days when your strength level is high. Because of this you cannot be too tightly to a cycle. You must be intelligent enough to recognize these fluctuations and adjust accordingly. When your strength level is up take advantage of it, don't back off just because your cycle calls for only a certain performance level. Flexibility is the key.

Assistance work is another area that will vary between the steroid aided athlete and the drug free athlete. I feel assistance work to be very important to both. Assistance work is designed to overcome a weak point and we all have weak points. I feel that assistance work may be more important to the non-steroid user, but this is only true if the assistance work and supplementation.

is done correctly. As with all of your training you must be very careful not to overdo the assistance work. With steroids it seems to be like you can do endless amounts of assistance work and bodybuilding. Without the steroids you will not have this luxury. Too much assistance work or bodybuilding will quickly lead to an overworked state. You must be more selective with your assistance work. I would not recommend more than one heavy assistance exercise per lift.

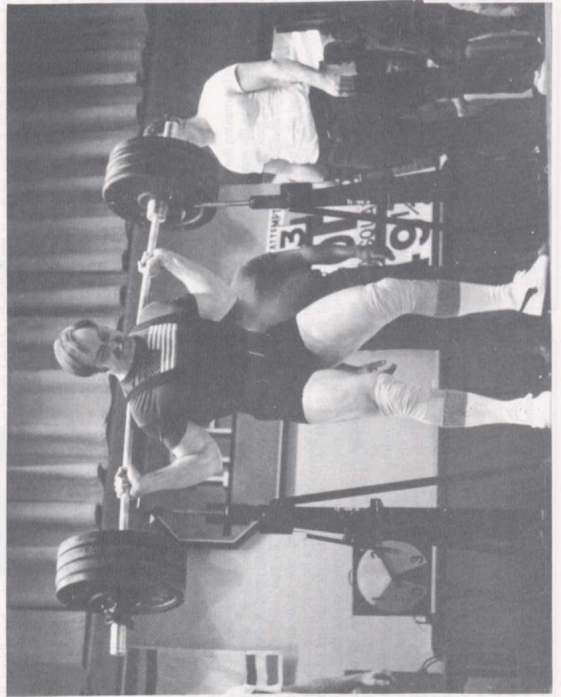
When choosing assistance exercises you must be objective and pick the exercise best suited for you. I have recently added close grip bench presses to my routine. My bench has begun to move and they appear to be working. If I had added another assistance exercise such as incline presses or dumbbell presses, it would have been too much. What I am saying is determine your weak points and add an assistance exercise that is tailored to correct that problem.

My training articles are not meant to condemn or ridicule those who use drugs. The use of steroids is a personal decision. Whether you choose to use them or not to use them does not make one person morally superior to another. All I am attempting to do is share with the readers of this magazine the similarities and differences I have encountered in training with and without the use of steroids.

To recap, the following points should be considered:

1. Heavy weights and low reps.
2. Do not overtrain.
3. Have flexible training cycles.
4. Use assistance work wisely.

In my next article, I will discuss diet and supplementation.



John Kuc at 242 in the 1974 World Championships. Pope photograph.

NUTRITION CORNER

by Jack Diganzi

I get quite a few letters from readers who are coaches. Most of the letters ask me what you say to the Junior High, High School or College athletes when it comes to good nutrition. In this issue of Nutrition Corner, we'll take a good look at what is the latest in Nutrition For the Coach.

First of all, coach, you'll have to accept that your athletes are very vulnerable if they hear or read something about a certain vitamin, they are by all means ready to run out and buy out the store of the stuff. What you want to do is keep that enthusiasm, but make them aware that there is no miracle food, miracle vitamin, or miracle anything. I wish there were. I guess a well balanced meal chosen from the 4 Food groups sounds a little tacky, but it is a basic start. Once this is understood, adjustments can be made where necessary for their chosen sport. So, sit back coach, powerlifter and weight training athlete, take a pad and pencil and jot down a few good points as you read this article. Come back to it as you need to for reference.

Just as in any sport, football, basketball, track, powerlifting, etc., you've got to get the basics down first, and with a method that's simple and easy to understand. Nutritionists use the concept of the 4 Food Groups. You can tell them to visualize this in terms of a tomato. You have your bun (bread and cereal group), your burger (meat or protein group), your cheese (milk and dairy products) and your tomato and lettuce (fruit and vegetable group). You could do the same thing with a meat and cheese pizza. We can expand on that notion this way: Meat group—need about 2.3 servings per day; fruit and vegetable group—need 4 servings daily. That's what a balanced diet is about.

If they ask what about weight gain or losing weight, then tell them simply to watch calorie intake. If they want to gain weight, suggest increasing the serving of EACH FOOD group, not just the protein or dairy food groups. Don't let them get into the habit of believing that a "high protein" diet will pack on the muscle fast. If they want to reduce, cut down on the serving sizes, but keep the balance there. Remember, we're talking about basic nutrition for the younger athlete, not the high powered, very selective diet of an experienced, seasoned athlete. What you want to accomplish is getting them off junk foods and snacks and onto non-productive habits and on to foods that will fuel and maintain their energy supply and set up a foundation for muscle growth. If you can do this, then you've done them one real service not only throughout their athletic career, but throughout their life. That's why you're a coach—to teach and assist. Now let's take a look at some nutrition questions most often asked by athletes. Let's start with energy.

Physical activity, in any sport, demands calories. It is like the gasoline you put in your car. How much fuel you need, calories, for your car depends on how much you

kids may experience if they try this. First, once they start limiting their carbs, they'll have less and less energy. The protein they're eating does not convert into energy all that well. You'll also have to watch for once extra weight they'll pick up once the carbs start coming in. In any weight-limit sports, your athletes will have to watch the scales closely.

Finally, make sure they understand they'll have to rest during the carb loading phase. If they don't rest, you'll have a lot of carbs will be used and the storage percent will never be realized. Now let's take a look at a very popular and very misunderstood topic—protein.

How much do I need? Is more better? Isn't muscle made of protein? Then the more protein I eat, the more muscle right? Please, coach, please tell your athletes that too much protein not only doesn't do any good, too much protein can and will do a lot of harm. So let's take a long, close look at this seemingly magic stuff called protein.

Muscles require protein for maintenance and growth. No amount of protein stuffed into your body will make your muscles grow any faster or any bigger. It's the combo of workouts, rest, nutrition that will spur on progress. Remember, protein is absolutely necessary for growth and repair of muscle tissue. Overload the protein thing, and you're hurting yourself a lot more than doing any good. Like how? Well, how about dehydration, plac-

ing an enormous strain on the liver and kidneys, i.e., ketosis. How about the possibility of gout to say nothing of the high fat intake! If that doesn't convince you, then how about the cost. Yes, dollars and cents! Protein does cost a bit more than fruits and vegies.

Eating Before the Event: No matter what your sport, the hard fact is that one good wholesome meal will not, by any stretch, will give you the edge. Having one bad meal before the event, however, will hurt your performance. To be effective, you must eat good meals throughout your training schedule, meals that every day, supply your body with the stuff you need to compete. What about the last meal before the big event? Well, studies tell us that you should give yourself about 4 good hours between the time you put your fork down and the time you tie up your laces. Any less, and you're likely to give most of the meal back, the hard way. However, you have to consider nerves and the type of food. Here's some guide lines. Protein foods will digest more slowly. They call up gastric juices in order to be digested. Fats and oils (especially fried foods) move very, very slowly through the gut. I wouldn't advise any heavy-duty fat intake at the pre-event meal, because there would be very little energy coming from that fat that soon. Plus, you'd no doubt give up most of this meal as well. What you need is energy foods; carbs. I'll get to that in one moment. You also should be getting plenty of fluids at the pre-event meal. You don't want to get anywhere near

dehydration. Here's also a word about coffee, tea or cola drinks containing caffeine. Avoid them because they have a natural diuretic effect, and dehydration is the last thing you need.

Finally, by all means, if one type of food makes you "feel" great, then by all means, go for it! It means it takes advantage of the psychological benefit and use it.

Here are some guidelines to follow: 1) Eat your last bit about 4 hours before the event. 2) Don't overload yourself with protein, or fats, or fried food. These won't give you energy, they'll just bog you down.

3) What will give you energy, they'll just Lots of them. One suggestion you may try is the liquid meal. This would be a fruit juice, honey, sugar, a little skim milk and some ice. Being in a liquid form helps digestion. The low-fat, moderate protein and combo of fruit juice or juices, say orange juice and pineapple or whatever, and one very ripe banana all blended together, makes for one great drink. A meal in a glass as far as an athlete's pre-event nutrition is concerned. It is full of simple and complex carbs and goes into the digestion phase very quickly. What about a soft drink, a swag of honey or a candy bar? Well, they can actually bring down your overall energy level. How? A load of quick energy dumped into the blood-

stream will trigger your body's insulin to "level off" that high peak of energy now sitting in your bloodstream. Right away you will feel a little licky, but very shortly, as the insulin pulls down the blood-energy level, you'll start to feel less and less kick. Finally, you'll have actually less energy than when you first started! If you reach for another swag of honey, or another can of cola, the process repeats itself. Stick to fruits and juices in this liquid meal or any time you need some energy, and you'll have plenty for a long while.

Body Fat—If you are carrying around a little more weight than necessary, then get rid of it. Now in some sports such as Powerlifting, 10-15% fat could be useful. In leverage sports, but athletes in other sports the major sports as well as the minor ones, really don't require that extra "cushion" of fat. In contact sports, perhaps a little fat helps. About 5-10% bodyfat for most sports is about right. How could you check? Well, body weight and measurements do well for a start. A good mirror and an honest opinion also helps. Other, more exotic ways include skin-fold callipers, and underwater weighing. A good honest look at yourself is probably the best way to assess how much fat you are toting around.

Weight-Gaining: One quick word about gaining weight. You need extra calories. One pound equals about 3500 calories, so try adding about 1000 more calories per day and you'll gain. Keep the fat content

relatively moderate and the protein higher, while keeping the carbs very high. In other words, eat more protein, more fat, eat more carbs, gain weight. What about weight-gaining products, those super-weight gain supplements? Well, there is a place for them, but we're trying to cover the basics here.

Weight-Reduction: Reducing weight involves the same thing, calories, but in reverse of the above. Limit your calorie intake by about 1000 calories per day and you'll lose weight. Keep the protein at about middle-of-the-road and cut the carbs down as well. Just remember that you'll be drawing on your own body's energy reserve to do this. You may feel little tired for a lot of really available energy, but that means it's working, and being actively. Losing too much weight too fast can and will do harm.

One of the most important—if not the most important—nutrients is water. For those coaches who think water break is for the weak, you should realize the danger of limiting water-breaks. The body uses water to regulate body temperature, it's the calories that count. Food 98.6 F if too much water is lost and the temperature regulation mechanism is affected. The body's temperature will rise, and will literally "cook" the tissue from the inside. A 102 F or 103 F temperature is very serious. An internal temperature of 105 F or 107 F or higher can and will kill. Your young athletes perform- mance level will diminish very rapidly

relatively moderate and the protein higher, while keeping the carbs very high. In other words, eat more protein, more fat, eat more carbs, gain weight. What about weight-gaining products, those super-weight gain supplements? Well, there is a place for them, but we're trying to cover the basics here.

Weight-Reduction: Reducing weight involves the same thing, calories, but in reverse of the above. Limit your calorie intake by about 1000 calories per day and you'll lose weight. Keep the protein at about middle-of-the-road and cut the carbs down as well. Just remember that you'll be drawing on your own body's energy reserve to do this. You may feel little tired for a lot of really available energy, but that means it's working, and being actively. Losing too much weight too fast can and will do harm.

One of the most important—if not the most important—nutrients is water. For those coaches who think water break is for the weak, you should realize the danger of limiting water-breaks. The body uses water to regulate body temperature, it's the calories that count. Food 98.6 F if too much water is lost and the temperature regulation mechanism is affected. The body's temperature will rise, and will literally "cook" the tissue from the inside. A 102 F or 103 F temperature is very serious. An internal temperature of 105 F or 107 F or higher can and will kill. Your young athletes perform- mance level will diminish very rapidly

relatively moderate and the protein higher, while keeping the carbs very high. In other words, eat more protein, more fat, eat more carbs, gain weight. What about weight-gaining products, those super-weight gain supplements? Well, there is a place for them, but we're trying to cover the basics here.

Weight-Reduction: Reducing weight involves the same thing, calories, but in reverse of the above. Limit your calorie intake by about 1000 calories per day and you'll lose weight. Keep the protein at about middle-of-the-road and cut the carbs down as well. Just remember that you'll be drawing on your own body's energy reserve to do this. You may feel little tired for a lot of really available energy, but that means it's working, and being actively. Losing too much weight too fast can and will do harm.

One of the most important—if not the most important—nutrients is water. For those coaches who think water break is for the weak, you should realize the danger of limiting water-breaks. The body uses water to regulate body temperature, it's the calories that count. Food 98.6 F if too much water is lost and the temperature regulation mechanism is affected. The body's temperature will rise, and will literally "cook" the tissue from the inside. A 102 F or 103 F temperature is very serious. An internal temperature of 105 F or 107 F or higher can and will kill. Your young athletes perform- mance level will diminish very rapidly

relatively moderate and the protein higher, while keeping the carbs very high. In other words, eat more protein, more fat, eat more carbs, gain weight. What about weight-gaining products, those super-weight gain supplements? Well, there is a place for them, but we're trying to cover the basics here.

Weight-Reduction: Reducing weight involves the same thing, calories, but in reverse of the above. Limit your calorie intake by about 1000 calories per day and you'll lose weight. Keep the protein at about middle-of-the-road and cut the carbs down as well. Just remember that you'll be drawing on your own body's energy reserve to do this. You may feel little tired for a lot of really available energy, but that means it's working, and being actively. Losing too much weight too fast can and will do harm.


One of the most important—if not the most important—nutrients is water. For those coaches who think water break is for the weak, you should realize the danger of limiting water-breaks. The body uses water to regulate body temperature, it's the calories that count. Food 98.6 F if too much water is lost and the temperature regulation mechanism is affected. The body's temperature will rise, and will literally "cook" the tissue from the inside. A 102 F or 103 F temperature is very serious. An internal temperature of 105 F or 107 F or higher can and will kill. Your young athletes perform- mance level will diminish very rapidly

if the body's fluid level is down. The pulse rate increases, blood pressure increases, etc., in a shirt, the body runs less and less. There is a very simple way to minimize any side effect of dehydration: have frequent water breaks. Also, have them weigh before the practice, record it, and in the mid-afternoon practice, reweigh. If the weight is down, have them drink plenty. If they don't drink more, swallow it. I may believe me, don't make mistakes with your people, not on at least that simple of a thing.

What about salt tablets? Forget them. They are too concentrated and very salty. Your kidneys will be very stressed, a lot of strain and they're probably forcing out more salt than athlete's body as it is. Do

In review, take a long look at your athletes nutritional status. Believe me, coach, if your athletes are eating bad, then you can almost bet their performance will be just as bad or even worse. Go over the basics: like eating balanced meals of protein, carbs and fats. Check their bodyweight, lose or gain, it's the calories that count. Finally, keep the 4 Food Group Plan. It can be very useful. Have any questions about a particular athlete or problem, by all means jot it down and send it to me and I'll see if I can help.

Nationally, Jack Diganzi, R.D., M.S., 116 Dupont Pl., West Monroe, LA 71291



\$1050 (shipping included)

FROM HAWAII!

The Power Pit T-Shirt

★ Durable, high-quality t-shirts
★ Available Colors: Black, White, Yellow, Green, Red, Brown, Navy Blue, Royal Blue, Maroon

★ In Sizes: S - M - L - XL
Size Qty 1st Color 2nd Color 3rd Color

NAME _____ STATE _____ ZIP _____
ADDRESS _____
CITY _____

SEND TO: **THE POWER PIT**
98-820 Mountain Road, Aiea, HI 96701 (808) 487-6500
NO C.O.D.'s
allow 2-4 weeks for delivery

American Drug Free Powerlifting Association

Mens Sana In Corpore Sano

A Sound Mind In A Sound Body

Organized to meet the demands of the powerlifter, the ADFPA provides sanctioned contests with mandatory drug testing.

Join the ADFPA and support the return of fair competition. For information or to apply for membership, contact any of the officers below.

Brother Bennett
President
P. O. Box 351
Bay St. Louis, MS 39520

George Hummel
Sec./Treas.
939 N. 20th Street
Allentown, PA 18104

Nick Theodorou
5 Stonecroft Dr.
Easton, PA 18042

POWER-RESEARCH

dedicated to bringing Science to the sport of Powerlifting

Grip Spacing and Arm Position
by **Thomas M. McLaughlin, PhD**
The following article is excerpted with permission from Dr. McLaughlin's new book **BENCH PRESS MORE NOW**.

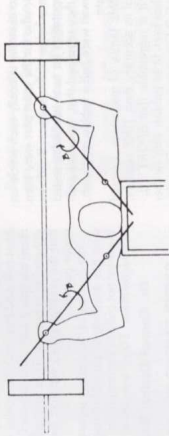


Figure 1.—Angle of the arms - B. Think of the arm as fixed to the axis shown between each shoulder and hand. Rotation occurs about this axis. Position shown in maximum position where elbows are nearest the plane through shoulders and neck. (© Thomas M. McLaughlin 1984. All rights reserved)

Investigation of the optimal arm orientation during a lift awaits more three-dimensional kinematic studies of the bench press.

The angle I have defined is most easily seen (figure 1) at its maximum position, when the elbows are rotated as far as possible toward the shoulders. From my film studies I have found this to be the final position of nearly every bench presser who misses a lift. This also happens to occur at (guess where?) the sticking point. What's really funny about this is that any hope of pushing the bar through the sticking point is dashed when the arms rotate to this position. Since the hands can't rotate outward along the bar, there is little the triceps can do here for extension. Also, the anterior deltoid is being ineffective by this point, and the pectoralis major is also not at its greatest leverage here either. It would be better to rotate in the other direction (elbows move more towards sides) to at least put the arm in a position where the triceps could help more.

This time-up arm pressing point, that rotating the arm there is a very crucial "finishing" skill. The narrower your grip also the more critical it is since a narrower grip shortens the pectoralis major (contributor to bench press force production) the shorter a muscle the less force it can generate! Ever notice that the narrow grip bench press specialists have tremendous trouble locking out at the top? With this grip, once they rotate themselves out (as in figure 1) there is even less help possible from the chest to lock the lift out. I have seen this in the top narrow grip benchers, and we also showed it in my narrow grip style lift in our three-dimensional study. The triceps kill you once you rotate out. Narrow grip benchers need to avoid this maximum rotation position until the lift's completion. It will be fun to explore this further and someday show how this rotation should be performed optimally in the bench press!

Power Publicity...Dr. Robert Stark of Phoenix, Arizona recently got a line writeup in the Phoenix Gazette, with a big 3 column wide photo of Dr. Stark bench pressing. The article relates how the Dr. Stark stays young by lifting, and how he got started at age 55 by going to Jon Cole's gym and asking questions. Dr. Stark is a bariatric specialist, who treats overweight conditions with exercise and nutrition, and has always been fit himself. He not only enjoys lifting himself, but he recognizes the healthy aspect of it in improving the cholesterol characteristics of its practitioners. This article appeared in the "RECREATION" section of the paper, and did a real service to Powerlifting, as well as entertaining the readers of the newspaper with some insight into one of the people in their locale, by explaining what it was about and why people get involved with it. Since Masters lifters, women lifters, etc. do not fit the commonly held stereotype of a powerlifter that the public holds, it seems that the media is more likely to cover them in particular. If there is a deserving lifter in your area, that the local newspaper or television station might be interested in, give them a call, and see if you can't get some positive publicity for Powerlifting. If you are successful and do get something in the public's eye, send a clipping or let us know what happened; write to the U.S.P.F. Publicity Committee, Box 467, Camarillo, CA 93011.

short arms. Coupled with a wide grip these people are terrors in competition when bench press time comes around: 4) Obviously, a few people can excel in bench pressing with narrower grips, but just think what they could do with a wide grip if they gave it some time. It is important to realize here that narrow grip benchers are triceps and deltoid strong and pectoralis major weak. When switching to a wide grip it is necessary to give yourself some time to get the chest up to par (and for a while your maximum lift will possibly be less with a wide than narrow grip). It just takes some time.

The ideal arm position during the bench press is difficult to determine from a two-dimensional analysis. The necessary three-dimensional studies to determine this are presently underway. If the hand is fixed on the bar (which it is) and the bar is not allowed to move, these are still one degree of freedom in positioning the arm. This freedom is equivalent to a rotation of the arm about an axis (or line) through the hand and shoulder. The range of motion of the rotation during a bench press is small, but critical. The location of the end of the bar and the shoulder cannot be used to determine the position of the elbow.

Power Publicity...Dr. Robert Stark of Phoenix, Arizona recently got a line writeup in the Phoenix Gazette, with a big 3 column wide photo of Dr. Stark bench pressing. The article relates how the Dr. Stark stays young by lifting, and how he got started at age 55 by going to Jon Cole's gym and asking questions. Dr. Stark is a bariatric specialist, who treats overweight conditions with exercise and nutrition, and has always been fit himself. He not only enjoys lifting himself, but he recognizes the healthy aspect of it in improving the cholesterol characteristics of its practitioners. This article appeared in the "RECREATION" section of the paper, and did a real service to Powerlifting, as well as entertaining the readers of the newspaper with some insight into one of the people in their locale, by explaining what it was about and why people get involved with it. Since Masters lifters, women lifters, etc. do not fit the commonly held stereotype of a powerlifter that the public holds, it seems that the media is more likely to cover them in particular. If there is a deserving lifter in your area, that the local newspaper or television station might be interested in, give them a call, and see if you can't get some positive publicity for Powerlifting. If you are successful and do get something in the public's eye, send a clipping or let us know what happened; write to the U.S.P.F. Publicity Committee, Box 467, Camarillo, CA 93011.

In addition to bar path, two factors must be specified to completely describe bench press technique. The first is hand position on the bar (i.e. grip spacing). The second is the rotation of the forearm and upper arm about an axis through the shoulder and the hand.

Any bench presser should increase the distance between his hands to further enhance his performance. Although expert lifters demonstrated no significant differences in upper body length relative to the novice lifters, their finishing bar position was significantly closer to the shoulder. The normalized average heights above the shoulder were 1.923 meters and 0.794 meters for the novice and light expert groups respectively. If the arm length is proportional to body length this could occur only if the competitive lifter's hands were placed further apart on the bar than were the novice's. The benefit associated with increased hand spacing is to help compensate for the increased triceps involvement required by the optimum path described earlier. If the bar is held fixed and the hands moved outward, the elbow moves closer to a vertical line through the bar. This motion reduces the elbow extension moment required. The required triceps involvement is correspondingly decreased. A novice lifter could conceivably reduce the shoulder torque requirements without affecting the elbow torque requirements by modifying his bar path and hand spacing in a coordinated fashion.

The large expert bench pressers also used grip spacings significantly wider than the novices and analogous to the light experts. For the larger lifters the mechanics of the bench press are affected by the rules of powerlifting. When a very tall individual bench presses competitively, the 32 inch grip width limit works against him since a wider grip would be more advantageous. For very big bench pressers this limit on width roughly approximates a smaller lifter having to "close grip" all his bench presses! Perhaps the rules on grip width can someday be amended to be proportional to shoulder width, height, etc.

My major reasons for supporting the view that a wide grip is optimal in the bench press came from a study that I did with Dr. Nels Madden back in 1982. We did a three-dimensional analysis of yours truly performing three types of bench presses: 1) wide grip (32 inch), hitting high on chest; 2) wide grip (32 inch), hitting low on chest; and 3) narrow grip (shoulder width, 20 inch), hitting high on chest. (Note: the spacings here are the distances between index fingers (as in rules), and "low" on chest was base of pectoralis major and "high" on chest was 2 inches above that

Question & Answer

This month, training questions are answered again by Roger Estep, 1979 Sr. National Champion and World Record breaker in the 198 lb. class. If you have a training question, send it to QUESTION & ANSWER, 1413 Holgate Dr., Anaheim, CA 92802.

Dear Roger: I have been stuck awhile at 270 in the press behind the neck. I dumbbell press on Mondays and also bench press on that day. I press on Saturday, working up to 3 to 5 singles with 90% of my one rep limit. I laid off on the press behind the neck for a while and came back and made 250 easy, but just missed 270 again. I also bench press on Thursday. I weigh 260. I would greatly appreciate any help you can give me.

Thank you, **Kenneth Manzele**

Dear Ken: Behind the neck pressing is a show of great strength. If that is your goal, to have the best behind the neck press in the world, then you have to attack the lift as your primary movement, and everything else is done only to supplement your pressing. I would recommend you to train the lift twice a week, once heavy and once medium. On the heavy days, work up to 4 to 5 singles with near maximum weight; then go to 20-30 pounds over the medium day, go for 2 to 3 sets of five. The behind the neck press is extremely stressful on the deltoids, so little or no delatoid assistance is needed. If you wish, you may do a few standing dumbbell lateral raises to pump the shoulders. Triceps work will also be helpful. If you run into sticking points, you could start doing power rack work at different points in the movement. Because perfection in the behind the neck press is your goal, you should start your workout with this movement. A point of caution: as I have mentioned earlier, this exercise is strenuous to the shoulder joint, so be sure to warm the area up well with extra stretching and light work before going heavy. Fred Hatfield is one of the best pressers around, and he won't even load the bar until he has stretched out at least 15 minutes.

Your Friend, **Roger Estep.**

Dear Roger: I am 19 years old. I've been lifting weights for the last four years. I work out with 300 lbs. for 3 to 5 reps for 3 to 5 sets. Lately my max hasn't increased. It has remained at 405 for the last six months. Since I've been lifting weights, I've had this problem with my shoulder. Whenever I do a pressing movement, such as the bench press or military press, it feels as if the muscle in my left shoulder is tearing away from the bone.

Ronald Taylor

Dear Ron: Your lack of progress on the bench press could be due to several factors, such as your shoulder injury, overtraining due to all the pressing you do, or your training schedule. Your shoulder injury could be a result of overtraining or you could have been injured by accident during a lift. I would suggest you see a physician of sports medicine and see if he can help you. If you can not find one, you might seek help from an experienced lifter at your gym or in your area. I wish I could give you more, but it is very hard for me to treat you by correspondence. Injuries are very individualized and people respond differently to therapy. However, I will recommend that you do a lot of stretching of the shoulder area before training. Jeff Everson and Dr. Hatfield have written several articles on stretching both in POWER-LIFTING USA and Weider's MUSCLE & FITNESS that you can use as an outline. Your program seems to be very heavy on pressing movements. You have to make a decision as to which one of the lifts, either the bench press or the olympic lifts, you want to specialize in. If your main goal is to be an olympic lifter, then the bench press should only be used as an assistance exercise. On the other hand, if Powerlifting is your goal, then the clean & jerk and the snatch could be used to help your powerlifting. Any pain in the shoulder area coming from the olympic lifts should be avoided. I recall a few years ago, when I was doing both the powerlifts and the olympic lifts, I was getting a great deal of shoulder pain from the snatch. Knowing that I was on threat to Lee James and the 1976 Olympic Games, I decided to concentrate on the powerlifts, which turned out to be the right decision for me. My best advice to you is to decide which of the lifts you want to concentrate on and use the others to help you in that effort. I would like to close by telling you that for your age you have some very good lifts and I think you could do very well in either olympic or Powerlifting.

Best Wishes, **Roger Estep.**

Corrections...the proper address for Wisconsin State Chairperson Bruce Sullivan is 802 Willmor St., Racine, WI 53402. Also, Bob Powers 630 delectit at Lighthteavyweight should have received TOP 100 list consideration.

WHERE'S THE BENCH?
IF YOU'VE BEEN WONDERING WHERE YOUR WORLD CLASS BENCH PRESS HAS BEEN HIDING, HERE'S THE BOOK FOR YOU...



• The result is the most comprehensive, "State of the Art" book on bench pressing ever written...with practical training and technique ideas presented in nearly 100 pages of text (and with 29 tables, figures and photos, plus references).

• The unique ideas presented are bound to revolutionize bench press training and will help move your own bench pressing to the future!

• Dr. Tom McLaughlin has combined the results of over 5 year of research - on dozens of great bench pressers, with experience - competitive power lifter himself, he has gained unique insights over the years, training with the world's best bench pressers as former co-director of the National Strength Research Center, Auburn University.

To order "BENCH PRESS MORE NOW" send only \$11.95 to: Biomechanics, Inc., 201 Belcourt Pkwy, Roswell, GA 30076.

Name.....
Address.....

City..... State..... Zip.....
Send Cash, Check or Money Order in U.S. Currency only, U.S. and Canada, please add \$2.00. Foreign orders add \$4.00 postage/handling.

*SPECIAL NOTE: At least \$1.00 from the sale of each book will be donated to the United States Powerlifting Federation for further research on the Bench Press and other lifts.

POWERLIFTING USA MAGAZINE

198 1/4 lb./90 kg.

TOP 100

for USA lifters competing Nov 1983 to Oct 1984

NEW PL USA TOP 100 Achievement Awards



Our new Powerlifting USA TOP 100 ACHIEVEMENT CERTIFICATES document your lifting accomplishments in a way that you'll be proud to display for years to come. These certificates are beautifully done, printed in Red and Gold ink on exquisite paper stock, embellished with the official gold seal of Powerlifting USA Magazine, and personally signed by POWERLIFTING USA Publisher Mike Lambert. This is a distinctive award that certifies your lifts as accomplishments for you to see. Each certificate specifies your name, your TOP 20, 50, or 100 ranking division, your weight class, and your actual numerical ranking in your class. The price for this CERTIFIED documentation of your achievements is \$5.00 each, however, we are also offering you the finest way to permanently protect and display your certificate, a rich wood grain plaque with a unique, crystal clear cover. There's no frame to hassle with, and each plaque is ready to hang, flush against your wall. The signed certificate, sealed as official by Powerlifting USA Magazine, with the deluxe display plaque are available TOGETHER for \$18.95 as a total package price. If you have appeared on a previous TOP 100 listing (even several years back) or have made the list since the last one was published for your weight class, then you are eligible for these awards. To order, send your name, street address, weight class, lift, date it was made, the amount of weight, and the list that your name appeared on. Send \$5 per certificate or \$18.95 for certificate and deluxe mounting plaque, payable to Powerlifting USA, Box 467, Camarillo, CA 93001. California residents add 6 per cent sales tax.

NEXT MONTH...TOP 220s

DEADLIFT	BENCH PRESS	SQUAT
1934 Sanger, G 12/17/83	788 Duke, B 7/8/84	1 793 Wright, D 7/8/84
1935 Wright, D 7/8/84	790 MacDonald, M 10/27/84	2 795 Wask, J 7/8/84
1936 Kesho, V 7/10/84	791 Siler, C 2/17/83	3 771 Siler, C 2/17/83
1937 Siler, C 2/17/83	792 Black, B 7/8/84	4 740 Person, P 5/19/84
1938 Person, P 5/19/84	793 Black, B 7/8/84	5 740 Person, P 5/19/84
1939 Person, P 5/19/84	794 Wright, D 7/8/84	6 738 Parigian, G 7/8/84
1940 Person, P 5/19/84	795 Wright, D 7/8/84	7 738 Parigian, G 7/8/84
1941 Person, P 5/19/84	796 Wright, D 7/8/84	8 733 Mottla, R 7/8/84
1942 Person, P 5/19/84	797 Wright, D 7/8/84	9 733 Mottla, R 7/8/84
1943 Person, P 5/19/84	798 Wright, D 7/8/84	10 733 Mottla, R 7/8/84
1944 Person, P 5/19/84	799 Wright, D 7/8/84	11 733 Mottla, R 7/8/84
1945 Person, P 5/19/84	800 Wright, D 7/8/84	12 733 Mottla, R 7/8/84
1946 Person, P 5/19/84	801 Wright, D 7/8/84	13 733 Mottla, R 7/8/84
1947 Person, P 5/19/84	802 Wright, D 7/8/84	14 733 Mottla, R 7/8/84
1948 Person, P 5/19/84	803 Wright, D 7/8/84	15 733 Mottla, R 7/8/84
1949 Person, P 5/19/84	804 Wright, D 7/8/84	16 733 Mottla, R 7/8/84
1950 Person, P 5/19/84	805 Wright, D 7/8/84	17 733 Mottla, R 7/8/84
1951 Person, P 5/19/84	806 Wright, D 7/8/84	18 733 Mottla, R 7/8/84
1952 Person, P 5/19/84	807 Wright, D 7/8/84	19 733 Mottla, R 7/8/84
1953 Person, P 5/19/84	808 Wright, D 7/8/84	20 733 Mottla, R 7/8/84
1954 Person, P 5/19/84	809 Wright, D 7/8/84	21 733 Mottla, R 7/8/84
1955 Person, P 5/19/84	810 Wright, D 7/8/84	22 733 Mottla, R 7/8/84
1956 Person, P 5/19/84	811 Wright, D 7/8/84	23 733 Mottla, R 7/8/84
1957 Person, P 5/19/84	812 Wright, D 7/8/84	24 733 Mottla, R 7/8/84
1958 Person, P 5/19/84	813 Wright, D 7/8/84	25 733 Mottla, R 7/8/84
1959 Person, P 5/19/84	814 Wright, D 7/8/84	26 733 Mottla, R 7/8/84
1960 Person, P 5/19/84	815 Wright, D 7/8/84	27 733 Mottla, R 7/8/84
1961 Person, P 5/19/84	816 Wright, D 7/8/84	28 733 Mottla, R 7/8/84
1962 Person, P 5/19/84	817 Wright, D 7/8/84	29 733 Mottla, R 7/8/84
1963 Person, P 5/19/84	818 Wright, D 7/8/84	30 733 Mottla, R 7/8/84
1964 Person, P 5/19/84	819 Wright, D 7/8/84	31 733 Mottla, R 7/8/84
1965 Person, P 5/19/84	820 Wright, D 7/8/84	32 733 Mottla, R 7/8/84
1966 Person, P 5/19/84	821 Wright, D 7/8/84	33 733 Mottla, R 7/8/84
1967 Person, P 5/19/84	822 Wright, D 7/8/84	34 733 Mottla, R 7/8/84
1968 Person, P 5/19/84	823 Wright, D 7/8/84	35 733 Mottla, R 7/8/84
1969 Person, P 5/19/84	824 Wright, D 7/8/84	36 733 Mottla, R 7/8/84
1970 Person, P 5/19/84	825 Wright, D 7/8/84	37 733 Mottla, R 7/8/84
1971 Person, P 5/19/84	826 Wright, D 7/8/84	38 733 Mottla, R 7/8/84
1972 Person, P 5/19/84	827 Wright, D 7/8/84	39 733 Mottla, R 7/8/84
1973 Person, P 5/19/84	828 Wright, D 7/8/84	40 733 Mottla, R 7/8/84
1974 Person, P 5/19/84	829 Wright, D 7/8/84	41 733 Mottla, R 7/8/84
1975 Person, P 5/19/84	830 Wright, D 7/8/84	42 733 Mottla, R 7/8/84
1976 Person, P 5/19/84	831 Wright, D 7/8/84	43 733 Mottla, R 7/8/84
1977 Person, P 5/19/84	832 Wright, D 7/8/84	44 733 Mottla, R 7/8/84
1978 Person, P 5/19/84	833 Wright, D 7/8/84	45 733 Mottla, R 7/8/84
1979 Person, P 5/19/84	834 Wright, D 7/8/84	46 733 Mottla, R 7/8/84
1980 Person, P 5/19/84	835 Wright, D 7/8/84	47 733 Mottla, R 7/8/84
1981 Person, P 5/19/84	836 Wright, D 7/8/84	48 733 Mottla, R 7/8/84
1982 Person, P 5/19/84	837 Wright, D 7/8/84	49 733 Mottla, R 7/8/84
1983 Person, P 5/19/84	838 Wright, D 7/8/84	50 733 Mottla, R 7/8/84
1984 Person, P 5/19/84	839 Wright, D 7/8/84	51 733 Mottla, R 7/8/84
1985 Person, P 5/19/84	840 Wright, D 7/8/84	52 733 Mottla, R 7/8/84
1986 Person, P 5/19/84	841 Wright, D 7/8/84	53 733 Mottla, R 7/8/84
1987 Person, P 5/19/84	842 Wright, D 7/8/84	54 733 Mottla, R 7/8/84
1988 Person, P 5/19/84	843 Wright, D 7/8/84	55 733 Mottla, R 7/8/84
1989 Person, P 5/19/84	844 Wright, D 7/8/84	56 733 Mottla, R 7/8/84
1990 Person, P 5/19/84	845 Wright, D 7/8/84	57 733 Mottla, R 7/8/84
1991 Person, P 5/19/84	846 Wright, D 7/8/84	58 733 Mottla, R 7/8/84
1992 Person, P 5/19/84	847 Wright, D 7/8/84	59 733 Mottla, R 7/8/84
1993 Person, P 5/19/84	848 Wright, D 7/8/84	60 733 Mottla, R 7/8/84
1994 Person, P 5/19/84	849 Wright, D 7/8/84	61 733 Mottla, R 7/8/84
1995 Person, P 5/19/84	850 Wright, D 7/8/84	62 733 Mottla, R 7/8/84
1996 Person, P 5/19/84	851 Wright, D 7/8/84	63 733 Mottla, R 7/8/84
1997 Person, P 5/19/84	852 Wright, D 7/8/84	64 733 Mottla, R 7/8/84
1998 Person, P 5/19/84	853 Wright, D 7/8/84	65 733 Mottla, R 7/8/84
1999 Person, P 5/19/84	854 Wright, D 7/8/84	66 733 Mottla, R 7/8/84
2000 Person, P 5/19/84	855 Wright, D 7/8/84	67 733 Mottla, R 7/8/84

move a weight), the muscle will not be able to lift a load heavier than the tendons will permit before tearing. Fortunately, the same exercise movements which encourage the increase in development of muscle tissue (increased amount of contractile protein in the muscle fibers) will also cause the connective tissue of the tendons to increase. This will result in thicker tendons which will permit a stronger bond between the muscles and the bones. This will in turn permit more weight to be moved (increased strength).

The above is true since in most cases when we lift an extremely heavy load, the first thing to be injured is the tendons. We can think of the tendons as being the weak link in the chain. Of course, this is true primarily for advanced weightlifters. Most people who do not exercise regularly will have tendons which are stronger than their muscles. In the case of the advanced trainee, the true potential of their muscle strength will not be realized, because lifting the maximum poundage permitted by their muscles, could result in a tear or stretching of the tendons. Here, isometric exercises and exercises which employ low repetition, high weights will act to develop and increase tendon strength. This will permit the lifter to realize his true strength potential.

Obviously, other factors enter into the proper development of maximum strength development such as proper nutrition (especially in regards to protein), rest and the proper state of mind. Information on nutrition and rest are available to the trainee from magazines such as Powerlifting USA. Training the mind to work with you in achieving the proper attitudes and motivation necessary to achieve your maximum strength potential is more difficult. Recent medical evidence suggests that biofeedback and stress management techniques may be employed to achieve the desired psychological effort. I personally have found these techniques to be powerful tools for allowing the muscles you have developed to achieve their maximum tension development, which results in increased weight added to your lifts. Information on what biofeedback is and how it can be used to improve your lifts can be obtained by writing to Health Management Institute, P.O. Box 10752, Merrillville, Indiana 46411. The information is free.

In any event, the thing to remember is that strength is determined by the amount of contractile protein in our muscles and the strength of the connection (tendons) between the muscle and bone. The amount of protein layed down in the muscle (anabolism) will be partially dependent on the amount of weight lifted, frequency of the exercise session and the amount of protein contained in the diet. Once the muscles are developed and the tendons have achieved their proper strength, the true potential of the lifter will depend on the psychological state of the individual. Here, biofeedback has proven to be effective.

STARTIN' OUT

A special section dedicated to the beginning lifter

STRENGTH: Is it in the Muscles or the Tendons?
by Donald D. Macchia, Ph.D., Indiana University

muscles and tendons to avoid strain. At the level of the tendon, there are special organs which help the body prevent overworking the muscle-tendon unit. These protective organs are called "golgi tendon organs". The tendon organs will prevent a second set of organs located in muscles (called muscle spindles) from causing the muscle to contract too much. This will prevent the muscles from pulling too hard on its tendons or attachments, thereby damaging or rupturing these connections. The way golgi tendon organs work goes something like this: when muscles are stretched (as in weightlifting) the muscle spindles are also stretched. Muscle spindles are small organs located between muscle fibers (cells). One end of the muscle spindle is attached to the end of the muscle, the other end is attached to the muscle itself. When the muscle spindles are stretched, they will send a message back to the muscle to shorten or contract. If the muscle shortens, the muscle spindle will shorten and the signal to the spinal cord to cause muscle shortening will stop. That is to say, the muscle spindle will only be active when it is stretched and inactive when it is not stretched. This, however, can be dangerous, since if the weight the muscle is trying to lift becomes so great that the muscle cannot shorten (as in isometric lifting) the muscle spindle will be stimulated (because it is stretched) and will signal the muscle to shorten more by contracting harder. This can place a lot of tension on the muscle and could lead to muscle-tendon injuries. When the muscles are forced to exert a great amount of tension on the tendons, the golgi tendon organs are activated. Before injury can occur the golgi tendon organ will send signals to the spinal cord to shut down the muscle spindles, so the tension development in the muscle will decrease. This can and does save the muscle-tendon unit, in many cases, from serious injury. Since the muscles used in weightlifting are under conscious (voluntary) control, we can overcome the signals put out by the golgi tendon organs and cause damage to our muscle or tendons. Here, it is important to prevent from exceeding the capacity of our muscle-tendon strength and to develop proper strength in these tissues to handle increasingly heavy loads.

In answer to the question of where they have weak connections to us, bones they move (allowing us to

What causes the addition of new protein to our muscles is still an active area of research. Near as we can tell, the chronic (long term) exposure of our muscles to the lifting of heavy weights will cause changes in the anabolic hormone levels of the body and the muscle cell biochemistry to favor the increase in the anabolic activity of the body. This will cause more protein to be placed into the muscle tissue than is removed. The net result is an increase in the amount of muscle tissue (which is primarily water and protein) that is primarily generated at the sole site of our strength in our muscle tissue. This is in part due to our muscle tissue. This is in part due to, however, how strong we are will not only depend on how hard the muscles can contract (short-term), but on how strong our tendons are. Remember, our muscles are attached to the bones of our body by the tendons. What good would our muscles be and how strong would we be if the attachments between the muscles and bones are weak. No matter how strong our muscles are, if they have weak connections to us, bones they move (allowing us to

The three things most weight trainees work for is muscle size, symmetry, and strength. Powerlifters and Olympic weightlifters can develop tremendous muscle size and symmetry, but the thing that separates them from bodybuilders is the amount of strength that can be developed. That's not to say that bodybuilders are weak. Quite to the contrary, many bodybuilders also compete as powerlifters or Olympic weightlifters. However, if this is the case, it is usually because the strength developed by the bodybuilder was the result of the incorporation of strength building exercises which form an integral part of the powerlifter's or weightlifter's routine. Many different routines have been published over the years to help the weightlifter develop strength. In every case, the core of the routine will consist of exercises which work large muscle groups. Further, those exercises which prove to be most effective use low repetition sets (3 to 6 repetitions) with heavy weights (rather than the high repetition, 8 to 12 as repetitions, lower resistance exercises usually employed by bodybuilders). Although we know what must be done to develop strength, the question which usually arises is what is it that we do to our anatomy and physiology through exercise, to increase strength. Additionally, where is the seat of our strength? Is it in the muscles or the tendons? We must first answer these questions we must first examine the body's basic anatomy.

There are three different body tissues of concern which are affected by weightlifting. There are the mobile joints, such as the elbow, knee, wrist and shoulder are characterized as taking their strength and mobility from the tensile strength of the ligaments and the contractile (muscle shortening) properties of the muscles. The muscles are in turn connected to the bones (which form the joint) by tendons.

Ligaments are connective tissue sheaths which surround each joint in the body. They help to keep the bones locked in place and act to prevent a separation of bones at the joint. Functionally, the muscle and tendon act as a unit. This unit acts to (1) stabilize the joint (surrounds the joint and holds the bones in place), and (2) cause the bones to move about the joint hinge (due to contraction of the muscle). Every muscle in your body is connected to bone tissue by tendons. Tendons are a type of connective tissue which is characterized as being quite strong and somewhat elastic. Muscles which cross joints in your body are connected to the two or more bones which form the joint by tendons. The muscles of your body have tendons at either end for this purpose. In weight training, it is the intent of the lifter to develop both the tendons and muscles gradually, so that heavier weights can be handled without injury due to strain. As the weights which are handled increase in strength, a corresponding increase in strength, endurance and the ability for the

United States Powerlifting Federation Classification Awards Program

MEN'S CLASSIFICATION STANDARDS

CLASS	114	123	132	148	165	181	198	220	242	275	SHW
Elite	1064	1167	1246	1394	1527	1642	1731	1824	1890	1946	2033
Master	981	1064	1146	1279	1400	1505	1625	1736	1786	1857	
Class I	882	953	1025	1152	1257	1350	1422	1505	1554	1598	1670
Class II	777	838	904	1009	1102	1190	1257	1323	1367	1411	1472
Class III	672	733	788	887	965	1036	1097	1157	1196	1229	1279
Class IV	590	639	689	772	838	904	953	1003	1047	1075	1119

TEENAGE MEN'S CLASSIFICATION STANDARDS

CLASS	114	123	132	148	165	181	198	220	242	275	SHW
Elite	1014	1097	1180	1323	1450	1539	1627	1731	1786	1841	1918
Master	910	987	1064	1191	1314	1407	1514	1610	1654	1725	
Class I	799	866	932	1042	1124	1199	1295	1367	1411	1455	1504
Class II	678	733	794	882	970	1036	1097	1157	1196	1235	1284
Class III	546	595	640	711	783	838	882	925	965	992	1036
Class IV	468	441	474	529	579	618	656	689	717	733	766

WOMEN'S CLASSIFICATION STANDARDS

Class	97	105	114	123	132	148	165	181	198	198	+
Elite	639	683	733	782	827	899	981	1053	1130	1190	
Master	579	623	667	711	749	827	893	959	1025	1080	
Class I	518	562	601	639	672	744	805	865	920	970	
Class II	463	496	535	568	601	661	716	766	821	865	
Class III	402	435	468	496	524	579	623	672	716	755	
Class IV	347	375	402	424	452	496	535	573	617	650	

AWARD: Classification patch and/or certificate (Elite only) to athletes who qualify.

1. Powerlifting totals must equal or exceed the totals listed in the tables above for the respective body weight classes.
2. All totals must be made in a bonafide, U.S.P.F. Sanctioned Contest.
3. Application must be signed by the State Chairman or the Regional Chairman or the Chief Official of the meet. The Meet Director's signature will not be accepted.
4. Master and Elite award applications require the signature of at least one certified national or international referee present for the judging.

TO APPLY: Send the following to the classifications award chairman:

1. Completed Application form.
2. Five dollars (\$5.00) for each patch desired (includes classification tab).
3. All checks must be made payable to: USPF Emblem.
4. A stamped, self-addressed envelope (4 1/2 x 9 1/2).
5. Send all the above to:

Conrad P. Cotter, 2103 Langley Ave., Pensacola, FL 32304.

Patches will be sent directly to the athlete unless otherwise requested.

Name of Athlete _____ U.S.P.F. # _____
 Street Address _____
 City _____ State _____ Zip _____

Bodyweight (kilos) _____ lbs. _____ kgs.
 Met requirement for:
 Men Class IV Squat _____ lbs. _____ kgs.
 Teenage Class III Bench _____ lbs. _____ kgs.
 Women Class II Deadlift _____ lbs. _____ kgs.
 Master Elite

Total _____ lbs. _____ kgs.
 *note: use 2.2046 to convert kgs. to lbs.
 list both to the nearest tenth (1).

Date of Meet _____
 USPF Sanction # _____
 Name/Location of Meet _____
 Signature of official _____
 Nail Ref
 Mail Ref

Meet Result Corrections. Ken Brown reports that the results we published for the Mid Central USA meet should have shown Merle Downs of Bethany, Oklahoma as winner of the 220 lb. class with lifts of 694, 440 and 705. Dwight Hooper should have been credited with a 440 bench press in the results of the Tennessee State meet, and Tina Arrington should have been listed as the winner of the 60 kilo division at the Women's Teenage Nationals.

Penmanship State Records will be kept by new appointee Al Siegel, 109 East Market Street, Clearfield, PA 16830, 814-765-3214. He will be contacting meet directors for all meet results, but indicates that it is still the responsibility of the lifter involved to contact him directly. Records must be made by lifting and totaling in a full, three lift sanctioned contest, and can only be set at a meet held in the state or in a national meet. Full time college students lifting in Pennsylvania while a resident of another state can establish records in Pennsylvania, however.

Powerlifting USA BACK ISSUES

SOME PREVIOUS EDITIONS OF POWERLIFTING USA ARE STILL AVAILABLE. TO ORDER SEND \$3 FOR EACH BACK ISSUE YOU WANT AND BE SURE TO SPECIFY ALTERNATE CHOICES IN CASE OUR SUPPLY RUNS OUT BEFORE YOUR ORDER CAN BE PROCESSED.

- Dec/1981...1981 World Championship report, Clyde Wright Profile, World Master Championship report, TOP 100 lightweight (148 lbs.), Apr/1982...Women's National Championships, Drugs in Powerlifting, The All Time 2000 Total Club, Larry Pacifico Reminiscences, TOP 100 220s
- Apr/1983...Eddie Pengelly Profile, Mike Bridges Team Routine, Off Season Training, Making Weight, Women's World Team Salute, Don Blue, Power Rack Training, Pioneers of Power - Pat Casey, TOP 100 242s
- May/1983...Hawaii International, National Collegiate Championships, Bench Routine, Kevin Fisher, Isoometrics, Referee Directory, TOP 275s.
- Jun/1983...Women's Worlds, Judd Biasotto Comeback, Vince Anello deadlift routine, Dan Austin, Hatfield on Cycle Training, All Time 800 squat list, Bill West - Pioneer of Powerlifting, TOP 100 Superstars
- Jul/1983...1983 National, Women's National Nationals, Overtraining by Fred Hatfield, Making Weight, Chip McCain Squat Routine, 550 Bench Press Club, Don Kundy - Pioneer of Powerlifting, TOP 100 114s.
- Aug/1983...World's Greatest Deadlift, Deadlifting Secrets, 800 lb. Deadlift Club, Quad tears, Jim Reese Bench routine, TOP 100 123ers.
- Sep/1983...Senior National Championships, American Drug Free National Championships, Ricky Dale Crain Deadlift Clinic, Hatfield, the 130-lb. abbreviated Training Cycle, Ruth Shaler's Women's Corner, TOP 100 132s.
- Oct/1983...World Masters Meet, Men's and Women's Teenage Championships, Championship Bench Routines, All Time 2,000 Total Lifting, Pan Am Testing Impact, Injuries by Dr. Tom McLaughlin, TOP 100 148s.
- Jan/84...the debut issue of the NEW Powerlifting USA!, 1983 World Powerlifting Championships, National Masters meet, I.O.C. Banned Drug List, Injury Proofing, Police/Firefighters Nationals, TOP 100 181s.
- Apr/1984...Women's Nationals, Ed Coan Profile, Chip McCain Deadlift Workout, Developing the Chest and Lats by Dr. Tom McLaughlin, Calcium...How Much Do You Need?, Mental Rehearsal, TOP 100 242s
- May/1984...Lyle Alzado Profile, Ben Squat, World's Greatest Bench Press, Jim Cash Squat Routine, Rick Weil Profile, John Kuc on Deadlift Assistance Work, USPF Directory, Bench Press Forum, Calcium, Con-sumer Guide for Exercises, Referee's Corner, TOP 100 275s.
- Jun/1984...Hawaii Invitational, National Collegiate Championships, Fred Hatfield Profile, Joe Ladnier Profile, Joe Ladnier Bench Press Routine, Question and Answer by Roger Estep, Steroid Crackdown, Message From Chairwoman, ADFPA Top 20 181s, TOP 100 SHWs.
- Jul/1984...Women's World Championship Report, Jim Cash Deadlift Workout of the Month, Dave Schneider Profile, S.T.H. by Jeff Everson, Power Gym Directory, Drug Free Top 100 198s, Bob Wahl Power Profile, Masters Records list, TOP 100 114s, First Meet Impressions.
- Sep/84...Senior National Powerlifting Report, Drug Free Training by John Kuc, Bench Workout of the Month by Ted Arcidi, Are Anabolics Whorep Your Knees, TOP 100 132s, Shoulder Injuries.
- Oct/84...Medical Research Review, Jim McCarty Profile, Gus Reithwick Deadlift Routine, Drug Free Nationals, Teenage Nationals, Anabolics and Women, Offseason Training, TOP 100 148s, Drug Free 275 TOP 20.
- Nov/84...Gene Bell Profile, Mike McDonald and Jim Williams talk about the World's Greatest Bench, Dave Waddington squat routine, Rounds System Review, Dave Miller Profile, Shoulder Injuries, Meditation, Forced Rests, TOP 100 165s, Superheroes, TOP 100 Superheroes.
- Dec/84...World Juniors/Masters Championships, National Masters Championships, Mathematics of Powerlifting, Bench Press Path, Cyr Strong Man Contest, Jim Cash Bench Press Routine, TOP 100 181s, Drug Free Top 20 Flyweights, Ken Lesiner on Heavy Training capability.

MAKE OUT A CHECK TO POWERLIFTING USA FOR THE PROPER AMOUNT, PUT IT IN AN ENVELOPE AND SEND IT TODAY TO POWERLIFTING USA, BI DEPT., BOX 3238, CAMARILLO, CA 93011.

From the Elite Classification Chairman by Nate Foster

For some time now, I have been handling applications for Elite Certificates. On our elite certificates, there are entries for the squat, bench press and deadlift which go to make up the qualifying total. They are each listed in pounds and kilograms. Due to incomplete applications being printed in PL USA, I often get applications with just the lift in pounds or kilograms listed. The application must contain each lift in kilograms for the nearest one-tenth of a kilo (.01). This is almost never done, and leads to the nearest one hundredth almost every time. It is the applicant's responsibility to do the conversion and list the lifts in both pounds and kilograms. It is listed in pounds so that viewers of the certificate will know how much weight he or she has lifted. It is listed in kilograms so that the referee can do the conversion for entry into the proper accuracy and indicate the level of the referee signing the application. The referee's signature must be readable and the rank indicated, so that a check can be made to see if the referee is in fact what he or she claims to be, and is a member in good standing with the USPF.

At present, it sometimes takes a long time from when an application is sent to Dr. Cotter until he has the mail accounts for some of it. Sometimes Dr. Cotter is too busy to forward it to me. See this problem discussed in detail in the column "From the American Records Chairman" (Editor's Note: Classification Award applications published in PL USA now do have provision for both pound and kilo indications).

From the American Records Chairman / Nate Foster

When I began issuing American Records certificates in February of 1982, I made a pact with myself that she would return to me certificates for each completed application within 12 hours. I have not always lived up to this pact. Unfortunately, in this year, the horse painting business expanded and she began to slow down in her response. It has taken as long as 30 days for her to return some of the certificates to me. Efforts to find a faster calligrapher who could handle my 12 hour requirement have failed. I am continuing to search for a suitable one. The delays have bothered me more than it has bothered most of you. I am disappointed in people who have to wait 2 and 4 weeks to get their American Records. I am sure that you will understand my frustration. I have been able to handle only enough about quick responses, that if I do not find a suitable quick responding calligrapher very soon, I will resign as American Records Chairman. Jean will be leaving the state in the spring and would then be too far away for me to see even if she was as fast as she used to be.

From the Chairman of the Referees Committee ALL REFEREES - ATTENTION.

Later in 1982, I decided that something had to be done to raise the level of refereeing in the United States Powerlifting Federation and insure quality control in advancing officials up the hierarchy of refereeing, taking the politics out of the selection of Category I candidates, and renewing only our good Category II referees, instead of all who applied in the Olympic year.

In January 1984, I proposed, and got approval from the Executive Committee of the USPF, for a committee of Category I referees to be formed to supervise formal evaluations of all 100 of our Category II referees, over the 4 year Olympic period, counsel and correct weaknesses, recommend removal of good and corrected Category II's, approve Category II applicants and upgrade the quality of the whole referee structure in the USPF. I was given the honor of being named Chairman of this committee. I appointed Lyle Schwartz and John Pettit, two very highly respected Category II's, to the committee. Lyle Schwartz and John Pettit then got a proposal approved. This was a request to get scrutiny of the referees for a National referee to take the Category II test. This was an effort to get scrutiny of the referees who desired to advance by the person in authority most likely to have knowledge of that referee's demonstrated ability and willingness to referee in the past.

The next hurdle to fall was the "hang around" problem for 5 years and then take a National test. The next hurdle to fall was the "hang around" problem for 5 years and then take a National test. The next hurdle to fall was the "hang around" problem for 5 years and then take a National test. The next hurdle to fall was the "hang around" problem for 5 years and then take a National test.

The next hurdle to fall was the "hang around" problem for 5 years and then take a National test. The next hurdle to fall was the "hang around" problem for 5 years and then take a National test. The next hurdle to fall was the "hang around" problem for 5 years and then take a National test. The next hurdle to fall was the "hang around" problem for 5 years and then take a National test.

The next hurdle to fall was the "hang around" problem for 5 years and then take a National test. The next hurdle to fall was the "hang around" problem for 5 years and then take a National test.

The next hurdle to fall was the "hang around" problem for 5 years and then take a National test. The next hurdle to fall was the "hang around" problem for 5 years and then take a National test. The next hurdle to fall was the "hang around" problem for 5 years and then take a National test. The next hurdle to fall was the "hang around" problem for 5 years and then take a National test.

or technical director to insure that both the meet machine and the referee's machines inter-communicate. It is important that the referee's machines be able to communicate with the meet machine and that the referee's machines be able to communicate with the meet machine. It is important that the referee's machines be able to communicate with the meet machine and that the referee's machines be able to communicate with the meet machine.

Obviously with such a system and paperwork generated to support it, there became a strong need for all this to be written down somewhere, so that a referee could read what was required and then to do it. In the past the technical knowledge of how to perform was referred to as "passed down" by word of mouth. In the ancient history was before the invention of writing. I have therefore written a book called "The Referee's Textbook". This book has detailed job descriptions of each position that a referee can be expected to perform. It spells out a system and contains interrelated forms which quickly and efficiently accomplish all of the requirements for being and USPF follows an apprenticeship to "The Referees Text Book". All the requirements for being and USPF follows an apprenticeship to "The Referees Text Book". All the requirements for being and USPF follows an apprenticeship to "The Referees Text Book".

It is my intention to send one copy of "The Referee's Textbook" to the president of each National Powerlifting Federation in the USPF. It is hoped that the system described there will be modified to suit each country's needs and implemented. The goal is to upgrade officiating throughout the world and to set and attain high standards. If we are successful in this endeavor, there will come a day when the refereeing will be of the same high quality as that of the meet in the world and maybe then our athletes can get their acts together and be better prepared to compete in the world.

Lastly, I would like to describe what we are looking for in a Category I referee. First, the candidate must be thoroughly knowledgeable of the current rules. Next, they should be completely knowledgeable with the system and supporting documents contained in the Referee's Text Book. The candidate should have an impeccable reputation for strict, fair judging at all levels of competitions. They will be required to implement the system smoothly and inter-communicate with the meet machine. The candidate will be evaluated formally by Category I referees. The candidate will be evaluated formally by Category I referees. The candidate will be evaluated formally by Category I referees.

The most important attribute is yet to be discussed, inherent in the Referee in charge. It is the organizational ability, leadership and knowledge of the system set forth in the Referee's Text Book. The candidate should have a great opportunity to abuse that power and to do technical damage to the sport of powerlifting. We are therefore looking for people with the ability to handle volatile situations with anger and dignity. We are looking for a person who can stay calm when all about him is noise and chaos. The Category I should exhibit a leadership ability at all times and under all circumstances. To lose a temper is to lose control of the ultimate in refereeing and should inspire the respect and admiration of those referred to as Category II for a long time does not automatically insure that all these attributes will be present. So, a new Category II referee may be passed over. All candidates who petition to become a Category I while an old one may be passed over. All candidates who petition to become a Category I while an old one may be passed over. All candidates who petition to become a Category I while an old one may be passed over.

The most important attribute is yet to be discussed, inherent in the Referee in charge. It is the organizational ability, leadership and knowledge of the system set forth in the Referee's Text Book. The candidate should have a great opportunity to abuse that power and to do technical damage to the sport of powerlifting. We are therefore looking for people with the ability to handle volatile situations with anger and dignity. We are looking for a person who can stay calm when all about him is noise and chaos. The Category I should exhibit a leadership ability at all times and under all circumstances. To lose a temper is to lose control of the ultimate in refereeing and should inspire the respect and admiration of those referred to as Category II for a long time does not automatically insure that all these attributes will be present.

Nate Foster, Category I, Chairman, Referee's Committee
 204 Harvey Drive, Manhattan, Kansas 66502 (913) 776-5889
 Lyle Schwartz, Category I, Primary Member, Referee's Committee
 400 W. Brier Pl., Chicago, IL 60657 (312) 985 5793
 Dennis Burke, Category I, National Test Coordinator
 1211 S. John, Monroe, LA 71202 (318) 323 9956
 John Luby, Category II, Adaptor to Referee's Committee
 5024 Thinker, Boise, ID 83709 (208) 362 1091

DISCOUNT

FREE FORM AMINO ACIDS
onobol WEIDER
naturale NSP

INDIVIDUAL AMINO ACIDS

YOUR Amino Natural	DISCOUNT PRICE
Pure Crystalline 100 caps	100mg powder
Excipient and Preservative Free	25% OFF 30% OFF
L-Ornithine	\$14.35 \$16.80
L-Arginine	8.40 9.40
L-Valine	5.50 5.25
L-Threonine	16.20 31.05
L-Tyrosine	10.95 15.05
L-Phenylalanine	13.95 18.20
L-Methionine	12.60

All 23 individual amino acids available in powder. Also available in 500mg and 1kg.

AMINO ACID FORMULAS

Anabol Naturals	
Anabolic Amino Balance	
23 Amino Acids/25% OFF	\$15.40
120 capsules/500mg	29.25
240 capsules/500mg	19.45
100 grams pure powder	
Weider Life Essence	
14 Amino Acids/15% OFF	21.25
150 capsules/550mg	22.95
100 grams powder	
NSP-Natural Source Products	
17 Amino Acids/15% OFF	18.30
90 capsules/750mg	33.60
180 capsules/750mg	

GROWTH HORMONE FORMULAS

Anabol Naturals	
GH Releaser	
4 Amino Acids/25% OFF	\$14.95
120 capsules/775mg	15.45
100 grams pure powder	
Weider Anabolic Mega Pak	
30 packets/15% OFF	21.25
NSP Amino Grow	
90 capsules/765mg/15% OFF	12.35
180 capsules/765 mg/15% OFF	23.40

FREE AMINO ACID CHART

Biochemical/Anatomical Information with First Order

Orders only call 1-800-426-2265

1-800-626-2265 in California

For orders or product information please write

TELEHEALTH

712 Broadway, Suite 16

Santa Cruz, CA 95062

• Major credit cards accepted

• UPS guaranteed delivery /COD add \$2.00

• 2:30 ship/handling charge

• California residents add 6.5% tax

15%-40% Discounts on National Brand Name Supplements, Health and Beauty Aids

QUALITY • SAVINGS • CONVENIENCE

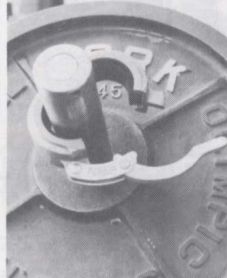
Write for free catalog

Strength Tech, Inc.
 BRINGING MODERN TECHNOLOGY TO STRENGTH EQUIPMENT



Okie Grip™

the simplest, fastest collar on the market.



Send \$30 per pair plus \$4 shipping and handling per pair. (No shipping and handling charges on orders of 3 or more pairs).

Sonata Olympic Sets



310 Pound Olympic Set	\$269.00
Olympic Bar	135.00
45 Pound Olympic Plates	52.50 pair
Olympic Spin Lock Collars	30.00 pair
EZ Curl Olympic Bar w/ Screw Collars	49.00

Money orders, cashier's checks, school purchase orders are shipped within 2 working days. Oklahomians add 3% state sales tax. Shipped freight collect from Stillwater, OK.

Send to: **Strength Tech, Inc.**
 Box 1381
 Stillwater, OK 74076
 Phone 405-377-7100

MIKE MACDONALD SYSTEMS

Super Products at Super Prices
 Write for Catalog.
 (add \$2 handling on orders under \$50)

Orchic 525 mg. (Raw Testicle Gland). 100 caps-\$12.50, 300-\$34.50, 500-\$53.75.

Vitamin B-15 100 mg. tablets (original Russian formula). 30 percent more stamina and lowest price available. 100 tabs-\$8.95, 300-\$23.00, 500-\$32.50, 1000-\$59.50

DMSO (Non Industrial Grade) 99.9 percent pure undiluted top quality. 8 oz-\$12.50, 16 oz-\$23.50

Betaine Hydrochloride 600 mg. with Pepsin, Pancreatin, Bromelain and Papain. For better digestion processes. 90 tabs-\$5.40, 180-\$9.95.

Argentine Beef Liver Tabs 23 gr. 300 tabs-\$9.75, 600 tabs-\$17.75, 1200 tabs-\$33.50.

Steroglan Tablets: 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-\$26.00, 1000-\$48.00, 2000-\$89.50

Competitive Edge Protein Powder
 Egg, Milk, spirulina, electrolytes, and digestive enzymes. 1.1 pound \$11.50, 2.2 lb.-\$19.00, 4.4 lb.-\$36.00.

Quick Weight Gain High Protein
 Egg plus milk plus enzymes, good tasting. 4 lb.-\$14.95, 8 lb.-\$27.95, 12 lb.-\$36.95.

Dyno Vites Sustained Release
 Ultimate multiple vitamin and mineral for athletes and much more. Fantastic 60 tabs-\$11.50, 120-\$22.00, \$180-\$31.50.

Mike MacDonald will be attempting all natural world records in drug tested competition coming up this year at 181 & 198 classes.

C.O.D. orders accepted with cash or money order required.

GO NATURALLY

order from:

Mike MacDonald Systems
 316 W. Central Entrance
 Duluth, MN 55811
 (1 218) 727-8847

USA FITNESS EQUIPMENT

WITH COUPON ONLY

U.S.A. OLYMPIC SETS

400 LB.....\$339.95
 310 LB.....\$285.00

EXPIRES JAN. 31, 1985

WITH COUPON ONLY

U.S.A. DELUXE EXERCISE SETS

210 LB.....\$114.95
 310 LB.....\$159.95

EXPIRES JAN. 31, 1985

WITH COUPON ONLY

SOLID EZ-CURL + 2-25# USA PLATES

(INCLUDES COLLARS) **\$39.95**
 SUPER SPECIAL!!

EXPIRES JAN. 31, 1985

WITH COUPON ONLY

HEXAGON SOLID DUMBBELLS STEEL KNURLED SHAFT

SIZES: 3 LB., 5, 8, 10, 12, 15, 25-100 LB. IN 5 LB. INCREMENTS
 ONLY **59¢ LB.**
 EXPIRES JAN. 31, 1985

U.S.A. F.S. LAT W/CABLE ROW

SPECIFY 6'10" or 7'3"

ONLY **\$288.88**

EXPIRES JAN. 31, 1984

PEC DEC

(BILATERAL - UNILATERAL) HOME DUTY

ONLY **\$329.95**

EXPIRES JAN. 31, 1985

FREE: Planning, Counseling, School & Gym Quotes!
 Dealer inquiries invited

Dealer inquiries invited



Pitt BARBELL & HEALTH FOOD

126 PENN HILLS MALL

PITTSBURGH, PA 15235

MON.-FRI. 10 AM-9 PM • SAT. 10-6

1-800-544-1200 • 412-371-4366
 (ALL ITEMS SHIPPED FREIGHT COLLECT)

FREE WEIGHTS

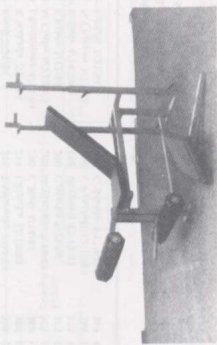


MACHINES



WITH COUPON ONLY

U.S.A. 10 IN 1
 (SUPER DUTY CONSTRUCTION)



\$279.95
 SPECIAL

EXPIRES JAN. 31, 1985

WITH COUPON ONLY

20 LB. PAIR HEXAGON SOLID DUMBBELLS

STEEL SHAFT - KNURLED GRIP

1/2 PRICE!! \$1500 PR.

EXPIRES JAN. 31, 1985

WITH COUPON ONLY

4" LIFTING BELT

S - M - L - XL

\$1788

EXPIRES JAN. 31, 1985

WITH COUPON ONLY

6' DELUXE BAR

(CHROME, KNURLED, INSIDE FLANGES)

\$1995

EXPIRES JAN. 31, 1985

DRUG FREE TOP 20/123

This Top 20 list by Jim Gallagher covers lifts made in sanctioned American Drug Free Powerlifting Association meets from November 1, 1983 to November 1, 1984. Please send a copy of all ADFPA meet results to Jim Gallagher, 301 Pine St., Glenolden, PA 19036. This will help these lifts as up to date as possible. Thank you.

SQUAT		BENCH		DEADLIFT		TOTAL	
1	2	3	4	5	6	7	8
540 J. Cunha 5/5/84	452 B. Fiddell 7/21/84	1224 J. Cunha 5/5/84	1141 F. Higgins 5/6/84	612.5K	524K	82.5K	315
408 W. Johnson 7/18/84	441 F. Higgins 5/6/84	1141 F. Higgins 5/6/84	1141 F. Higgins 5/6/84	572.5	54K	82.5K	315
405 W. Johnson 7/18/84	435 C. Warwick 11/19/83	1086 B. Fiddell 7/21/84	1086 B. Fiddell 7/21/84	510	69K	377.5	315
402 F. Higgins 5/6/84	430 F. Glass 12/10/83	1030 C. Warwick 11/19/83	1030 C. Warwick 11/19/83	510	69K	377.5	315
400 P. Hill 7/21/84	424 C. Warwick 11/19/83	1014 K. Nakada 7/21/84	1014 K. Nakada 7/21/84	455	67.5K	370	315
370 B. Schlegel 10/27/84	422 K. Nakada 7/21/84	1008 J. Stenfield 7/21/84	1008 J. Stenfield 7/21/84	455	67.5K	370	315
364 M. Machay 3/17/84	420 N. Charon 3/17/84	976 B. Schlegel 10/27/84	976 B. Schlegel 10/27/84	455	67.5K	370	315
360 R. Olson 3/17/84	419 M. Machay 3/17/84	970 M. Machay 3/17/84	970 M. Machay 3/17/84	455	67.5K	370	315
358 C. Warwick 11/19/83	418 J. Thompson 6/23/84	959 K. Knoll 7/21/84	959 K. Knoll 7/21/84	455	67.5K	370	315
355 J. Thompson 6/23/84	415 T. Mizevich 7/21/84	950 W. Johnson 7/18/84	950 W. Johnson 7/18/84	455	67.5K	370	315
352 K. Knoll 7/21/84	414 J. Mizevich 7/21/84	940 N. Charon 3/17/84	940 N. Charon 3/17/84	455	67.5K	370	315
340 J. Mizevich 7/21/84	413 R. Olson 3/17/84	930 R. Olson 3/17/84	930 R. Olson 3/17/84	455	67.5K	370	315
340 J. Mizevich 7/21/84	412 R. Olson 3/17/84	920 J. Gardner 6/23/84	920 J. Gardner 6/23/84	455	67.5K	370	315
330 C. Biele 4/14/84	411 W. Johnson 7/18/84	900 J. Gardner 6/23/84	900 J. Gardner 6/23/84	455	67.5K	370	315
325 N. Charon 3/17/84	409 J. Gardner 6/23/84	887 J. Ruzicka 12/10/83	887 J. Ruzicka 12/10/83	455	67.5K	370	315
325 F. Glass 12/10/83	408 J. Gardner 6/23/84			455	67.5K	370	315
320 C. Biele 4/14/84	407 J. Gardner 6/23/84			455	67.5K	370	315
315 J. Gardner 6/23/84	406 J. Gardner 6/23/84			455	67.5K	370	315
315 J. Gardner 6/23/84	405 J. Gardner 6/23/84			455	67.5K	370	315
315 J. Gardner 6/23/84	404 J. Gardner 6/23/84			455	67.5K	370	315
315 J. Gardner 6/23/84	403 J. Gardner 6/23/84			455	67.5K	370	315
315 J. Gardner 6/23/84	402 J. Gardner 6/23/84			455	67.5K	370	315
315 J. Gardner 6/23/84	401 J. Gardner 6/23/84			455	67.5K	370	315
315 J. Gardner 6/23/84	400 J. Gardner 6/23/84			455	67.5K	370	315

Polk County Championships 10/27/84 - Lakeland, Fla

NOVICE DIV	SQ	BP	DL	Total
Joe Williams-I	275	195	325	795
148	260	190	400	850
147	260	200	375	835
146	260	200	375	835
145	260	200	375	835
144	260	200	375	835
143	260	200	375	835
142	260	200	375	835
141	260	200	375	835
140	260	200	375	835
139	260	200	375	835
138	260	200	375	835
137	260	200	375	835
136	260	200	375	835
135	260	200	375	835
134	260	200	375	835
133	260	200	375	835
132	260	200	375	835
131	260	200	375	835
130	260	200	375	835
129	260	200	375	835
128	260	200	375	835
127	260	200	375	835
126	260	200	375	835
125	260	200	375	835
124	260	200	375	835
123	260	200	375	835
122	260	200	375	835
121	260	200	375	835
120	260	200	375	835
119	260	200	375	835
118	260	200	375	835
117	260	200	375	835
116	260	200	375	835
115	260	200	375	835
114	260	200	375	835
113	260	200	375	835
112	260	200	375	835
111	260	200	375	835
110	260	200	375	835
109	260	200	375	835
108	260	200	375	835
107	260	200	375	835
106	260	200	375	835
105	260	200	375	835
104	260	200	375	835
103	260	200	375	835
102	260	200	375	835
101	260	200	375	835
100	260	200	375	835
99	260	200	375	835
98	260	200	375	835
97	260	200	375	835
96	260	200	375	835
95	260	200	375	835
94	260	200	375	835
93	260	200	375	835
92	260	200	375	835
91	260	200	375	835
90	260	200	375	835
89	260	200	375	835
88	260	200	375	835
87	260	200	375	835
86	260	200	375	835
85	260	200	375	835
84	260	200	375	835
83	260	200	375	835
82	260	200	375	835
81	260	200	375	835
80	260	200	375	835
79	260	200	375	835
78	260	200	375	835
77	260	200	375	835
76	260	200	375	835
75	260	200	375	835
74	260	200	375	835
73	260	200	375	835
72	260	200	375	835
71	260	200	375	835
70	260	200	375	835
69	260	200	375	835
68	260	200	375	835
67	260	200	375	835
66	260	200	375	835
65	260	200	375	835
64	260	200	375	835
63	260	200	375	835
62	260	200	375	835
61	260	200	375	835
60	260	200	375	835
59	260	200	375	835
58	260	200	375	835
57	260	200	375	835
56	260	200	375	835
55	260	200	375	835
54	260	200	375	835
53	260	200	375	835
52	260	200	375	835
51	260	200	375	835
50	260	200	375	835
49	260	200	375	835
48	260	200	375	835
47	260	200	375	835
46	260	200	375	835
45	260	200	375	835
44	260	200	375	835
43	260	200	375	835
42	260	200	375	835
41	260	200	375	835
40	260	200	375	835
39	260	200	375	835
38	260	200	375	835
37	260	200	375	835
36	260	200	375	835
35	260	200	375	835
34	260	200	375	835
33	260	200	375	835
32	260	200	375	835
31	260	200	375	835
30	260	200	375	835
29	260	200	375	835
28	260	200	375	835
27	260	200	375	835
26	260	200	375	835
25	260	200	375	835
24	260	200	375	835
23	260	200	375	835
22	260	200	375	835
21	260	200	375	835
20	260	200	375	835

Stone's Gym Qualifier 10/14/84 - Norwell, Mass

SQ	BP	DL	Total
123	175	300	640
122	175	300	640
121	175	300	640
120	175	300	640
119	175	300	640
118	175	300	640
117	175	300	640
116	175	300	640
115	175	300	640
114	175	300	640
113	175	300	640
112	175	300	640
111	175	300	640
110	175	300	640
109	175	300	640
108	175	300	640
107	175	300	640
106	175	300	640
105	175	300	640
104	175	300	640
103	175	300	640
102	175	300	640
101	175	300	640
100	175	300	640
99	175	300	640
98	175	300	640
97	175	300	640
96	175	300	640
95	175	300	640
94	175	300	640
93	175	300	640
92	175	300	640
91	175	300	640
90	175	300	640
89	175	300	640
88	175	300	640
87	175	300	640
86	175	300	640
85	175	300	640
84	175	300	640
83	175	300	640
82	175	300	640
81	175	300	640
80	175	300	640
79	175	300	640
78	175	300	640
77	175	300	640
76	175	300	640
75	175	300	640
74	175	300	640
73	175	300	640
72	175	300	640
71	175	300	640
70	175	300	640
69	175	300	

Exclusively from
RCD Strength Systems
The Wonder Pak™
(30 day supply)

AND
**Natural Free Form
Amino Acid Tablets**
30 day supply • 26 grams per day

Special Offer \$52.00

Guaranteed Strength Gains!!!

*"If you're serious about moving
big weights, welcome home."*

Supplement outline & Arcidil workout plan included.

RCD STRENGTH SYSTEMS
P.O. Box 260, New Town Branch
Boston, Mass. 02258 • (617) 969-8524

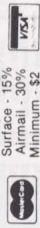
"THE BOOK THAT EXPOSED IT ALL"!

The secret techniques that professional bodybuilders use to develop their monstrous proportions are revealed in this controversial report:

- What drug is frequently used in professional bodybuilding, but never talked about
- How bodybuilders train for prolonged periods without becoming fatigued
- What is carbohydrate loading, and how it is used by most pros
- What rarely talked about technique was used by a Mr. Olympia during his most powerful performance
- What foods stimulate growth
- A little known substance found in most health food stores that will actually stimulate the release of growth hormones
- and much, much, more! \$16.00

Handling: \$2 on ALL orders.

OUTSIDE USA
\$2 handling charge plus:
Surface - 15%
Airmail - 30%
Minimum - \$2



CALL IN YOUR ORDERS:
MASTERCARD • VISA • COD

CRAIN POWER-PLUS

P.O. Box 1322
Shawnee, OK 74801
1-405-275-3889

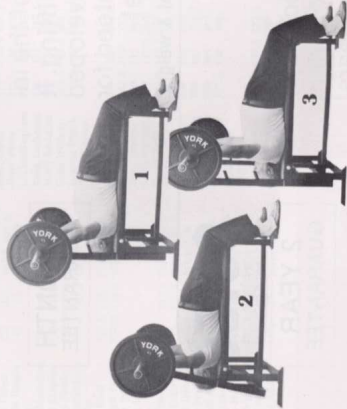


THE added dimension for the total athlete
A book about the
awesome power of
MIND CONTROL
improve your lifting and your life which



SEND CHECK OR MONEY ORDER FOR \$7.95
(\$6.95 + 1.00 postage & handling)
CO: WORLD CLASS ENTERPRISES, INC.
2002 SKYLAND DR.
ALBANY, GA 31705

Now Get Maximum Lifts
Using The New
Ultimate Bench
the finest bench made



No Springs - Powered by Gravity. Use all your strength to make lift. No strength wasted pulling bar into proper lifting position.

U.S. Patent No. 4302009 • Foreign Patent Pending

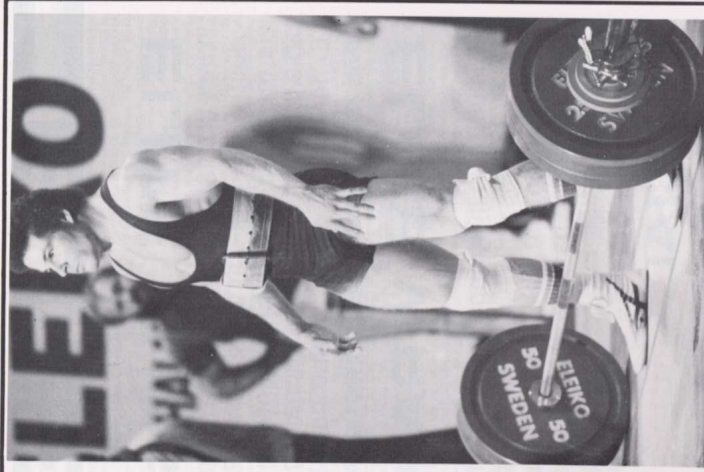


Regular \$325⁰⁰ Incline \$350⁰⁰
Freight Collect • CA residents add 6%

HYDROLIFE Bath Salts
Pure Natural Minerals
for the finest mineral bath.
2.95/lb. (add \$1.00 postage)

Used in warm water, these concentrated pure natural minerals will aid in temporary relief of minor muscular aches, simple tiredness and fatigue, the same effects as bathing in the finest natural springs and health spas.

IRON MAC
6935 Espanita
Long Beach, CA 90815
213-431-1802



Amino Acid Tablets
Each tablet contains 1288 mgs. of 100% Natural Free Form Amino Acids
300 tablets/\$15, 600 tablets/\$28, 900 tablets/\$39

Anabolic Glandulars
Each tablet contains 1500 mg. of the following naturally occurring nutrients
Whole Pituitary 150 mgs.
Orchic (testicle) 150 mgs.
Adrenal 150 mgs.
Kidney 150 mgs.
Heart 150 mgs.
Spleen 150 mgs.
Beef Protons 300 mgs.
100 tablets/\$13, 200 tablets/\$24, 300 tablets/\$32

Natural Growth Factor Stimulant
These are natural Amino not found in most proteins. They play an important role in helping to stimulate the release of growth hormone. They also help the liver to increase the rate of fat burning which can help lower your percentage of body fat and help provide energy.
Each tablet contains:
L-Ornithine 500 mgs.
L-Lysine 500 mgs.
L-Arginine 500 mgs.
100 tablets/\$20, 200 tablets/\$38, 300 tablets/\$56

Orchic
Each tablet contains 525 mgs. of raw testicle gland
100/\$13, 200/\$24, 300/\$34

B-15
100 mg./tablet
Argentinian Beef Liver
Each tablet contains 2Gr. of liver. (These taste so bad you know they must be good for you).
250/\$11, 500/\$21, 1000/\$39

Train Right Fitness Center
25 Central Street
Hingham, Mass. 02043
Hours — 9:30 - 9:00 P.M. M-F
9:30 - 4:00 P.M. Sat.

Bob Wahl, 1983 Senior National and World Powerlifting Champion says:
"These Amino Acid and Natural Growth Factor Stimulant tablets have helped me immeasurably. I seem to recuperate faster from my workouts, my energy level has increased, and I have added several pounds of muscle since I began taking them. As far as I know they can be taken all year long without danger and they are truly the safest and most result producing alternative to steroids I know of."

From the National Masters Chairman, Don Halsey

At the annual meeting of the Masters held in conjunction with the very 200th anniversary of the National Masters Championships (approximately 2000 letters with some 40 American records extended), several important issues were resolved. The dates for the 1985 National Masters have been advanced to May 11 and 12, 1985 with Dallas, Texas being selected as the meet site. The changes will double the roster of the team to represent the USMF at the 1985 World Masters to be chosen from the winners. On Friday evening, May 10, 1985, the annual meeting of the Masters will be held at the meet site and following the meeting, examinations for prospective referees will be given. The examination of requiring qualifying totals, at least for the 40 to 44 age group, was raised and discussed and the suggestion failed to garner any significant support from those in attendance. Participation by US Master lifters in the 1985 World Masters Games to be held August 7 thru August 15, 1985 in Toronto, Canada was enthusiastically supported. Individual participation will be emphasized and no team lift (such) will be selected or funded. Further details will be forthcoming as soon as the inclusion of Powerlifting in the Games has been announced officially. Potential bidders for future National Masters Championships should note that the proposal to expand the event to a three day competition received strong support, and given the anticipated increase in the number of participants, will probably be in effect for the 1986 Championships. Sincerely, Don Halsey, Chairman

Great Christmas Gifts... include a subscription to POWER HOTLINE, something really special for that somebody who already devours PL USA each month (\$28 for one year, payable to Powerlifting USA, Box 467, Camarillo, CA 93011) or how about a gift subscription certificate to POWERLIFTING USA for someone who should be on the mailing list (\$21 for one year, new or renewal); send us a check, we send you the attractive certificate, you present it to the recipient, who redeems it by filling out the subscription information and returning it to us. Another good Christmas item is POWER TECHNIQUE, the high speed sequence photography book of great lifters in action (\$12 to Powerlifting USA, Box 467, Camarillo, CA 93011). **Steroid Possession Felony**... we understand that it is now a 4th degree FELONY in Ohio to possess anabolic steroids without a prescription for same. **Bill Karmaler and the Law**... Bill is continuing his legal action against John Woolen regarding use of the title World's Strongest Man, and recently they both appeared in segments of the nationally syndicated PM Magazine television show. Bill's intent is to scientifically establish a basis for his title, so that it can not be appropriated by those less qualified, and he expects that this new law regarding the matter will be of benefit to athletes in all sports... if you liked the PM Magazine segment on Bill (November 7th air date), please write your local PM Magazine station and let them know that you would like to see more of Bill in the future. **International Referees at the 1984 World Powerlifting Championships**... who would like to verify their service or availability for service at the meet, should contact him in order the official stamp from John Pettitt at the meet, should contact him in order to get such verification. Contact him at Box 617, Lancaster, Texas 75146. **New ADEPFA Women's WEIGHT CLASSES**... Pat Malone, 124 E. State St., W. Lafayette, IN 47906 has sent out a bulletin establishing new weight classes for female competition within the ADEPFA. The new weight classes are 44 kg, 47.5 kg, 50.5 kg, 53 kg, 55.5 kg, 58.5 kg, 63 kg, 70 kg, 80 kg, and 80 plus kg. To qualify for national level competition in the ADEPFA, whether it be the Men's Open, Women's Open, Master, Collegiate, or Teenage Championships, the lifter must have made a qualifying total in an ADEPFA sanctioned competition. The qualifying totals for the ADEPFA Women's Open and Teenage Nationals in May of 1985 are Class II of the new ADEPFA classification system for the Women's Open, and Class III for the Teenage Women's Division. This updates the information published in Powerlifting USA elsewhere in this issue, regarding the qualifying totals for that meet. The new totals are (for Women's Open): 44 kg - 463 lbs., 47.5 kg - 496, 50.5 kg - 518, 53 kg - 540, 55.5 kg - 562, 58.5 kg - 584, 63 kg - 623, 70 kg - 678, 80 kg - 750, and 80 plus kg - 838. For the Teenage division the qualifying totals are: 402, 430, 457, 468, 491, 513, 546, 595, 656, 733. For further information contact Women's Chairperson, Pat Malone. **Athlete's Representative Nominations**... send in your favorite nominations for the position of Athlete's Representative on the National Powerlifting Committee to "Nominations", Box 467, Camarillo, California 93011... we are extending the deadline on these nominations to allow more candidates to participate, send in your nominations with a postmark of no later than January 7th, 1985. **1985 U.S.A. Junior World Championship Team applications**... are now open. Selections will be based on totals made between October 1st, 1984 and the last day of the National Championships (Juniors) in 1985. Deadline for applications is one week after the last day of the 1985 Nationals. The Jr. World meet will be held 19-22 Sept in West Germany. Contact Jake Boyer, Box 356, Lighthouse, PA 18235, or phone 215-377-2158.

the deadlift bar of the future is here today...

THE DEADLIFT BAR™

\$200.00

plus shipping

Designed by a World Class Deadlifter
Rickey Dale Crain

to help you pull the heaviest deadlift possible.
A bar with great knurling & flexibility for the big pull.

Special: Meet Directors will receive a discount.

Used In:

- * 1985 National High School Championships
- * 1985 Senior National Championships



CRAIN POWER-PLUS

RICKY DALE CRAIN
3 Time World Champion
KIMBERLY ANN CRAIN
National Teenage Champion

P.O. Box 1322
Shawnee, OK 74801
1-405-275-3669

Handling: \$2 on ALL orders.



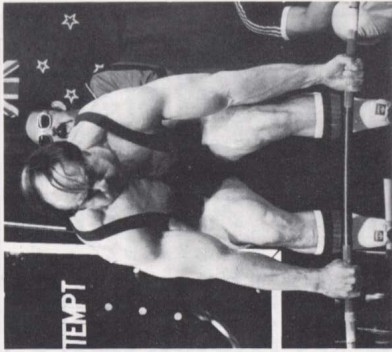
CALL IN YOUR ORDERS:
MASTERCARD • VISA • COOD

ALL EQUIPMENT FREIGHT COLLECT

Now Available!

JOHN KUC'S NATURAL ATHLETE'S PAK

ONE VITAMIN A AND D CAPSULE (SMALL) PROVIDES Vitamin A 10,000 IU Vitamin D 100 IU	ONE VITAMIN B COMPLEX (TELEFLOW) PROVIDES Vitamin B1 100 mg Vitamin B2 100 mg Vitamin B3 100 mg Vitamin B5 100 mg Vitamin B6 100 mg Vitamin B12 100 mcg Folic Acid 100 mcg Inositol 100 mg Pantoic Acid 100 mg Biotin 100 mcg Cyanocobalamin 100 mcg	ONE MULTI-ZINC TABLET (SPECTROLED WHITE) PROVIDES Zinc 50 mg Copper 2 mg Manganese 5 mg Selenium 20 mcg Molybdenum 5 mcg Vanadium 5 mcg Chromium 5 mcg Sulfur 20 mg Silicon 10 mg Calcium 100 mg Magnesium 100 mg Potassium 100 mg Sodium 100 mg Iron 10 mg Cobalt 5 mcg Nickel 5 mcg Strontium 10 mg Vanadium 5 mcg Selenium 20 mcg	ONE MULTY-ZINC TABLET (SPECTROLED WHITE) PROVIDES Zinc 50 mg Copper 2 mg Manganese 5 mg Selenium 20 mcg Molybdenum 5 mcg Vanadium 5 mcg Chromium 5 mcg Sulfur 20 mg Silicon 10 mg Calcium 100 mg Magnesium 100 mg Potassium 100 mg Sodium 100 mg Iron 10 mg Cobalt 5 mcg Nickel 5 mcg Strontium 10 mg Vanadium 5 mcg Selenium 20 mcg
------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------



4-TIME WORLD CHAMPION
CURRENT WORLD RECORD HOLDER
2-TIME ADPFA NATIONAL CHAMPION
CURRENT ADPFA RECORD HOLDER
2115 LB. TOTAL IN DRUG FREE COMPETITION

THE MOST COMPLETE AND HIGHEST POTENCY PAK AVAILABLE. A UNIQUE VITAMIN/MINERAL/GLANDULAR COMBINATION. TIME RELEASED & HIGH ASSIMILATION.

WE LIST OUR COMPLETE LABEL, SO YOU CAN COMPARE BEFORE YOU BUY.
30 DAY SUPPLY \$27
60 DAY SUPPLY \$50

"I feel this is the best Pak available. I had the formula designed for the athlete in hard training. I feel drug tested competition is the only true test of a supplement's value. This Pak has made a significant contribution to my drug free training."

JOHN KUC

ADDITIONAL NUTRITIONAL PRODUCTS

MULTI PAK - High potency Vit/Min with Liver & Yeast, 30 Days	\$15.00	NEW MUSCLE - unique combination of glandular, free-forming amino acids	
MS PAK - Vitamin/Mineral supplement for women, 30 Days	12.00	& potassium (exceeds potency of so called Natural Steroid Paks), 30 days	18.00
GROWTH - L-Arginine & L-Ornithine 750 mg, 260 Tabs	25.00	"JOHN'S TRAINING PRODUCTS"	
ENERGY BLASTERS - Liver, Brewer's Yeast, Guarana Powder, 500 Tabs	15.00	JOHN KUC SPEAKS! The ultimate power text	\$10.00
GLANDULARS - each tablet contains 200 mgs. of pituitary, adrenal, thymus, heart, orchic plus RNA/DNA, Bee Pollen, Vit. A, E and Yeast, 60 Tabs	15.00	Compare your squats	9.50
B-15 RUSSIAN FORMULA, 100 Tabs	6.00	SQUAT BELT - top grade leather, max. width & thickness	4.50
		WRISTSTRAPS	4.50
		LIFTINGSTRAPS	4.50



Quantity	Description	Size	Price	Extension

Call in Your Order On **VISA**

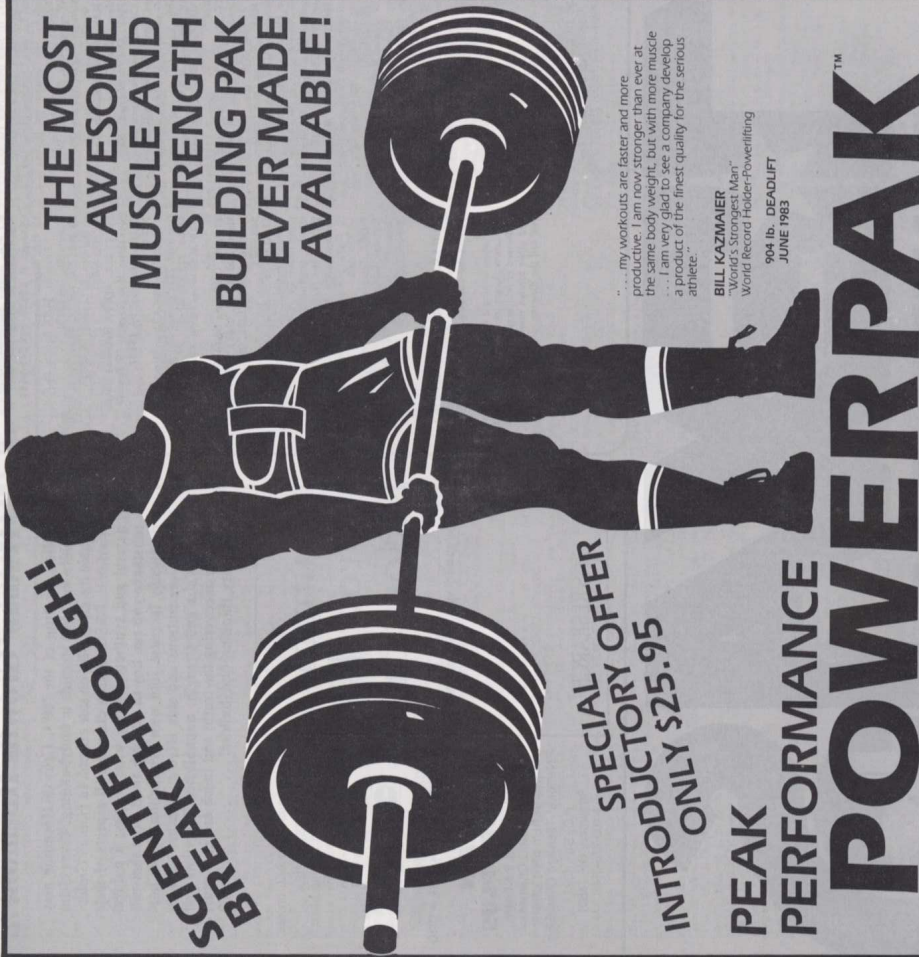
Make check or money order payable to:
KUC'S FITNESS SYSTEMS
P.O. Box 215
Mountaintop, PA 18707
717-474-6914

Money Orders receive special handling.

Sub Total	
Pk's Residents Add 6%	
TOTAL	

Visit Our Retail Store Seminars & Demonstrations Available High School Strength Programs Send for Complete Product Line

**SCIENTIFIC
BREAKTHROUGH!**



**SPECIAL OFFER
INTRODUCTORY OFFER
ONLY \$25.95**

PEAK PERFORMANCE POWERPAK™

MAKES ALL ARGININE/ORNITHINE FORMULAS OBSOLETE

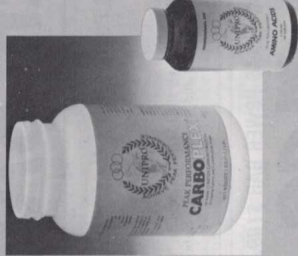
The first real breakthrough in muscle and strength development since 1964, when UNIPRO introduced AMINO ACIDS.

NOT FOR EVERYONE!

The POWERPAK™ is intended for only those strength athletes and bodybuilders involved in intensive workouts and wanting the fastest muscle and strength gains possible—naturally!

Each POWERPAK™ contains: 1 kilo of CARBOPLEX™ and 1 bottle of 150 tablets of UNIPRO Amino Acids.

**RUSH ORDERS
CALL TOLL FREE 24 HOURS
1-800-621-6070
In CA COLLECT: 408-734-3840**



100% GUARANTEED

**THE MOST
AWESOME
MUSCLE AND
STRENGTH
BUILDING PAK
EVER MADE
AVAILABLE!**

...my workouts are faster and more productive. I am now stronger than ever at the same body weight, but with more muscle ... I am very glad to see a company develop a product of the finest quality for the serious athlete.

BILL KAZMAIER
"World's Strongest Man"
World Record Holder-Powerlifting

904 lb. DEADLIFT
JUNE 1983

Mail check or money order to:
HI-TECH Sports & Fitness Products
1206 Mt. View-Aviso Road, Suite E Dept. P114
Sunnyvale, CA 94089

Rush me... POWERPAKs at \$25.95 each, plus \$2.50 for shipping/handling per PAK. CA residents add 6 1/2% tax.

___ POWERPAK™-Special Offer..... \$25.95
___ CARBOPLEX™ 1 kilo (22 lbs.)..... \$2.50
___ 150 Tablets, AMINO ACIDS (1000mg)..... \$5.95
___ 250 Tablets, AMINO ACIDS (1000mg)..... \$4.95
___ 500 Tablets, AMINO ACIDS (1000mg)..... \$4.95

Name _____ Address _____
City/State _____ Zip _____
Phone _____
VISA ACCT.# _____
MASTERCARD Exp.Date _____
Signature _____

Titan Suits

\$36.00

**TITAN PROUDLY
INTRODUCES
ULTRA-MIGHT**

**THE STRONGEST MATERIAL
EVER FABRICATED FOR
POWERLIFTING**



Bob Bridges - American Record Holder, 148 lb. phenom
Let's face it. When you have a max. load on your back, you want something comfortable that will get you out of the hole. That's why I switched ... to Titan.



Gil Thompson - 220 lb. Class 1984 National Champion
"Titan is the only suit I trust and wear."

There are 5 requirements that a lifters suit must meet and 3 vital ones are in the fabric. That is why Titan proudly introduces ultra-might, a new fabric that meets and exceeds every single requirement.

- 1. Tear Proof** - its content and its special circular knit make it the strongest fabric ever made available.
- 2. Run Proof** - its unique weave virtually eliminates the possibility of ever running.
- 3. Exceptional Support** - its extraordinary strength and durability offers the utmost in support.

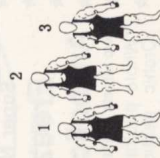
FOUND EXCLUSIVELY IN TITAN SUITS

The last 2 requirements are the heart and sole of a product and tests the worth of any company.

- 4. Custom Fit** - the suit must fit correctly plus be supportive. That's why every Titan Suit is custom tailored only to your individual measurements.
- 5. Guarantee** - the lifter must be protected. With Titan you are protected by the strongest, most valuable guarantee on the market. Blow (rip or tear) the crotch out and receive \$34 plus another suit - 3 mo. coverage; 1 mo. replacement only on the rest of the suit.

ONLY TITAN MEETS ALL 5 REQUIREMENTS

- Here's the Titan 3 step custom fit plan. For the ultimate in performance progress through each fit.
- 1. Regular Fit** - a snug suit for new lifters or those who just want to keep the groove.
 - 2. Meet Fit** - a tight supportive suit recommended for training and meets.
 - 3. Competition Fit** - our most supportive fit for the ultimate support.



First time customers are advised to order no tighter than a meet fit.

Measurements must be true.

Repeat Customer YES NO
Color: 1st _____ Alternate _____
No. of Suits _____
Reg. _____ Meet _____ Comp. _____
Height _____
Weight _____
Hips (around largest part of buttocks) _____
Leg (around largest part of leg) _____
Overall (top of trap to 6" below crotch) _____

USPF AND IPF APPROVED

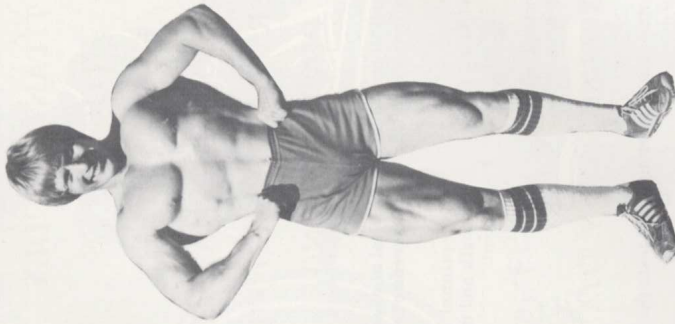


Available in Navy Blue,
Burgundy and Royal Blue.
Shipped UPS - no shipping
charge on prepaid orders.
MAIL TO: Titan Suits, Inc.
921 Rickey
Corpus Christi, Tx. 78412

• 2-3 w.k. Delivery • COD's Accepted
• No Overseas Charge • Tx. Residents add 5% Sales Tax

HIGH PERFORMANCE PRODUCTS

From Mike MacDonald



Mike's comeback from serious tendon tear injury is evident by recent 560 and close miss at 580 in 220 lb. Class. Look for official marks at 220 & 242 this year.

Go Natural
Have a Long Career

LIVER
(Argentina Beef)
23 grain Tablets

Liver is one of the most nutritional foods known to man. It is a blood builder, energy builder, stress eliminator and detoxifying agent.

CHECK THIS PRICE:

- 300 tabs \$10.50 + \$2 handling
- 600 tabs \$19.50 + \$2 handling
- 900 tabs \$28.00 + \$2 handling
- 1200 tabs \$36.00 + \$2 handling
- 1500 tabs \$43.50 + \$2 handling

Super New Formula
Freeze Dried

Anabolic Glandulars

Two tablets contain the following glands:

- *Whole pituitary.....300 mg.
- *Orchic (testicle).....300 mg.
- *Adrenal.....300 mg.
- *Thyroid.....300 mg.
- *Kidney.....300 mg.
- *Heart.....300 mg.
- *Pancreas.....300 mg.
- *Spleen.....300 mg.
- *Beef Peptone.....600 mg.

- 100 tabs.....\$12.00
- 300 tabs.....\$33.00
- 500 tabs.....\$52.50
- 1000 tabs.....\$97.50
- 2000 tabs.....185.00

Write for catalog or call me:
C.O.D. · U.P.S.

Phone orders OK
Add \$2 Postage on orders under \$50

order from:

Mike MacDonald Systems
316 W. Central Entrance
Duluth, MN 55811

Proven greatest Bench Presser of all Time by history of performance. 35 World Records of which 22 are official, spread over 4 weight classes.

Current World Records

- 198 lb. Class - 562
- 220 lb. Class - 576½ (580 unofficial)
- Highest official lift in 242 lb. Class - 603
- 2nd highest official lift in 181 lb. Class - 522.10

ORCHIC
(Raw Testicle Gland)
500 mg. Tablets

We have a SUPER NEW PRICE on this very popular product. It is very effective in increasing strength and development of muscles.

CHECK THIS PRICE:

- (500 mg. tablets)
- 100 tabs \$ 9.00 + \$2 handling
- 200 tabs \$17.00 + \$2 handling
- 300 tabs \$25.00 + \$2 handling
- 500 tabs \$39.00 + \$2 handling
- 1000 tabs \$75.00 handling free

Super New Product

POWER
AMINO ACIDS

HGH (Human Growth Hormone) which burns fat and builds muscle and is stored in the pituitary gland. This amazing hormone will create a super strong and hard cut muscular body, is activated and released by the natural amino acid formula below. For the best natural gains ever, take this amazing formula best at bedtime, for maximum results.

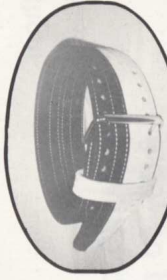
3 chewable tablets provide: 1500 mg. L-Arginine, 1500 mg. L-Ornithine, 1500 mg. L-Lysine

- 100 tabs \$21.00 + \$2 postage
- 200 tabs \$39.00 + \$2 postage
- 300 tabs \$56.50 + \$2 postage
- 500 tabs \$89.50 postpaid
- 1000 tabs \$169.50 postpaid

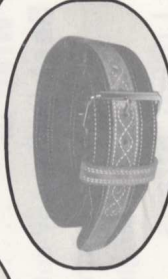
Bob's Custom Lifting Belts

By Bob Morris, Original Designer of Powerbelts

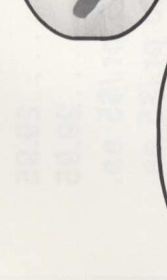
Buy from the Manufacturer and Save \$\$\$ and Time



Style B: \$60. Suede covered, 2 rows of holes, Chrome buckle, 1 or 2 colors.



3 Tone: \$65. 1 or 2 rows of holes, Chrome buckle, any 3 colors.



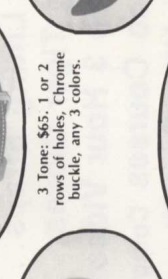
Style A: \$60. Suede covered, chrome buckle, 1 or 2 colors.



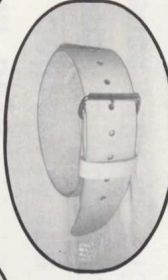
2½ Suede covered: \$45. 1 or 2 colors, 4" back.



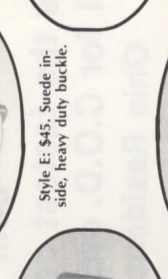
Style C: \$50. Leather, heavy duty buckle.



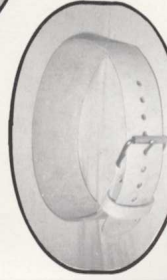
3" all around: \$45. Suede covered, 1 or 2 colors.



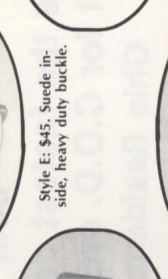
Style E: \$45. Suede inside, heavy duty buckle.



Style D: \$28. Power, single thickness.



3 inch single: \$19. Single thickness.



Straps: \$5. 2" or 1" wide.

We make a wide variety for all types of lifting. All prices include shipping. 100% guarantee. Your choice of 20 colors. Heavy duty thread available in white or gold. We only use the best materials and have the craftsmanship making a Bob's Belt the best your money can buy. Allow 2 weeks for delivery.

Bob's Custom Lifting Belts
689 Clark Ave., Pomona, CA. 91767
(714) 620-8957

Name _____ Phone _____
Address _____ State _____ Zip _____
Style _____ Size _____ Color(s) _____
 MC Visa No. _____
Exp. Date _____ Signature _____