







IF A COACH HAS A PRODUCT IDEA WHAT ARE THE FIRST STEPS TO TAKING IT TO MARKET?



**"WHERE THERE IS NO VISION THE PEOPLE WILL PERISH."
PROVERBS 29:18**



TSUNAMI BAR® EST. OCTOBER 25, 2011



TSUNAMI BARBELL TEAM



**Gordon
Brown**



**Mike Ramsey & Scott
Williams**




**Dr. Tony
Patericano**



Dr. Randy Hutchinson


FIRST STEPS: NOTEBOOK

- Buy a composition notebook to record your idea and all information related to your idea. This includes documentation of all 'prototypes' that you make or have made along with specifics on materials used and your estimate of material's cost as well as what is both good and bad about the prototype. YOU WILL PROBABLY MAKE MANY PROTOTYPES! YOU WILL LEARN FROM YOUR FAILURES!!!!



NEXT STEPS: CONFIDENTIALITY AGREEMENT

- When you have your idea to the point where you need to talk to anyone about your idea, have the person sign a confidentiality agreement. This is done to preserve certain patent options. You can have a person that has signed a confidentiality agreement witness each page in your notebook by writing the following at the bottom of the page with the person signing their name beside this statement "Read and Understood by: " and record the date. This is sufficient to document that the information on that page is your idea.

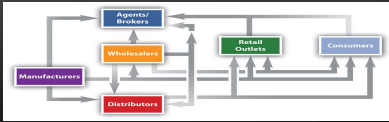


MUTUAL NON-DISCLOSURE AGREEMENT PART ONE

- This Mutual Non-Disclosure Agreement (the "Agreement") is effective on the date of its execution by the last-to-sign party, and is by and between Gordon Brown, a South Carolina resident, with his principle address at _____ and David Abernethy, a South Carolina resident, with his principle address at _____ (together known as "Brown/Abernethy") and (your Name or Company name) _____ (hereinafter referred to as "Parties").
- RECITALS**
 - Brown/Abernethy possess proprietary knowledge and technology in the field related to a flexible barbells and methods of use of a flexible barbells for use in the Strength and Conditioning field specifically US Patent 7,951,051 (May 31, 2011) owned by Gordon Brown and other patents pending, owned by Brown/Abernethy. Brown/Abernethy are interested in having discussions with _____ for the purpose of discussing Brown/Abernethy's information (hereinafter "Purpose").
 - _____ is interested in having discussions regarding Brown/Abernethy's information.
 - The Parties may, in conjunction with the aforesaid and for their mutual benefit, disclose to each other technical and commercial information relating to their respective businesses, facilities, products, techniques and processes in the form of oral disclosure, demonstration, device, apparatus, model, sample of any kind, document, specification, or drawing, which information is proprietary to the disclosing party (hereinafter "information") and the parties are willing to undertake to restrict the use and further disclosure of the information.
 - Now, therefore, in consideration of the recitals stated above and the representations, warranties and agreements stated below, the sufficiency of which is hereby acknowledged, the parties agree to the following.

NEXT STEPS: CHANNEL TO MARKET

- As you are continuing to develop your idea (products) and document, you need to think about and document the following:
- What is the Market for products that could be made using your idea? Use the Web to search for information and record in your notebook (or on your computer) all pertinent Marketing related information. Your goal is to 'define' the Channel to Market for your product and this will include:
 - Who will manufacture the product(s), Who will sell your product(s), Dealers/Distributors, Pricing, Raw Material suppliers and Pricing, etc.
- A Marketing Plan, Advertising, Website, etc.
- A Business Plan. In this plan you will need to develop a forecast of product sales by market with projections of profitability based on 'product cost' and your 'selling price' for each product. An Excel spreadsheet is an excellent tool to use.



NEXT STEPS: INVESTMENT

- By this point you will have invested a lot of time and possibly money. You will have experienced some High Points and some Low Points. If you have enough successes (High Points) in your development efforts, write them down. Review them with others (that have signed a confidentiality agreement). If knowledgeable people are excited about your 'ideas' this is a MUST or you need to consider stopping your efforts and if you do, do not take it as a failure but a learning experience. A famous person once said "He who will not risk, can not Win".



THE TSUNAMI BARBELL SUCCESS STORY



ABOUT US!

- Tsunami Bar, LLC is a South Carolina partnership LLC formed in Oct 2011 with David Abernethy (Master Strength and Conditioning coach by the CSCCa and Assistant Athletic Director of Strength and Conditioning at a Division 1 University) and Gordon Brown (retired United States Navy CAPTAIN, inventor and fiberglass composite's professional) as members. Sales began in May 2012. Tsunami Bar® products (US Pat # 7,951,051 and US Pat # 9,925,406) are state-of-the-art flexible composite barbells and LAT pull down bars along with methods for using these products in the Strength and Conditioning of athletes and others interested in building strength, speed of muscle movement and conditioning of stabilizer muscles to improve one's overall Power, Agility and Sports Specific abilities. Currently there are 9 Tsunami Bar® products including 6 flexible barbell bars and 3 LAT pull down bars. Other products are under development. All products have tailored flexibility and a FAT 2" grip. All Olympic plate weights and bumper plates can be used with all barbell products.
- Tsunami Bar® products are manufactured and marketed by Performance Strength Designs, Inc. (PSD) of West Columbia, SC under a license from Tsunami Bar, LLC.

TIME LINE!

- **Aug 7, 2003** – Gordon Brown attends Strength and Conditioning clinic to learn. David Abernethy was a speaker.
- **April 4, 2004** – Gordon met for 1st time with David Abernethy at Clemson.
- **April 2011 to present** – Continuing development/refining of Tsunami Bar® and related 'new' products.
- **Oct 15, 2011** – Tsunami Bar, LLC formed in South Carolina with Gordon Brown and David Abernethy as Co-Founders.
- **Early 2012** – Furman University under direction of Tony Caterisano PhD FACSM begins extensive evaluation program on the Tsunami Bar®.
- **April 25, 2012** - Exclusive Licensing deal signed with Performance Strength Designs, Inc. for Manufacture and Marketing of the Tsunami Bar® flexible composite barbell.
- **May 9, 2012** – Original Tsunami Bar® first offered for sale at CSCCa in Orlando, FL.
- **Jan 30, 2013** – Tsunami Bar® wins 'Best of Show' Product Award at American Composite Manufacturer's Association (ACMA) Annual 'Conference & Expo' – COMPOSITES2013.
- **May 2013** – Three (3) Scientific Research papers from Furman faculty professors to be presented at American College of Sports Medicine National meeting in Indianapolis, IN.
- **May 2013** – Additional Tsunami Bar® products projected to be introduced at CSCCa.
- **December 2013** - Tsunami Bar® product line becomes 9 strong.
- **February 2014** - New website is launched.
- **March 27, 2018** – United States Patent Issued Number: U.S. 9,925,406 B2 Titled: Apparatus and Methods of Using A Flexible barbell For Enhancing The Benefits of Weightlifting.

THE ORIGINAL TSUNAMI BAR®

- **Level 3 Tsunami Bar® (The Original Tsunami Bar®)**
- **90" long. Bar weighs 15 lbs. Weight range: 45 to 135 lbs on each end of bar. Most popular bar.**



PRODUCT SAFETY INSTRUCTIONS

LOADING OF WEIGHTS, LOCKING COLLARS and USE INSTRUCTIONS

Hitch pins are not used with the LIGHT + w/ Standard Grip bars. Disc weight(s) must be loaded against the wear pad at each end of the bar. And a Croc Lock™ or Lock Jaw Elite locking collar is positioned onto the bar and in contact with the outside surface of the outermost disc weight and locked securely into place with at least 3 inches of the bar extending from the outside edge of the locking collar. Only Croc Lock™ or Lock Jaw Elite collars are to be used. After each set of repetitions, check the position of the locking collars at each end. If either has moved more than 1/2", reposition it snugly against the outside surface of the disc weight. If you are unable to get the locking collar to fit tight against the surface of the bar, replace it with a new locking collar, and if that collar does not fit tight do not use the barbell and notify the manufacturer.

FINDING A MANUFACTURER

- Performance Strength Design
- 720 Chris Dr
- West Columbia, SC 29169-4
- (803) 750-0122



FINDING DISTRIBUTORS



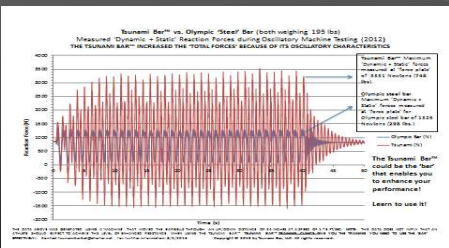
RESEARCH: SCIENCE BEHIND THE PRODUCT!

Machine peak vertical ground reaction forces			
Steel Bar	Flexible Bar	Significance	
334.8±13.3	704.8±113.1	p = 0.007	

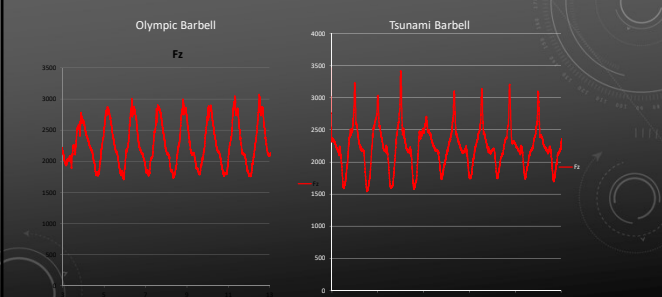
I-EMG	Squat Exercise		Significance
	Steel Bar	Flexible Bar	
VL	66.52 ± 16.12	75.69 ± 18.55	p = 0.03
BF	51.79 ± 33.55	58.40 ± 44.58	p = 0.488
RA	115.09 ± 53.91	169.59 ± 114.55	p = 0.03
ES	65.42 ± 23.71	70.77 ± 23.17	p = 0.07
RF	59.92 ± 17.62	69.77 ± 17.32	p = 0.013
EO	68.98 ± 29.50	114.62 ± 52.98	p = 0.0004
GRFs	1120 ± 203.3	1195 ± 209.4	p = 0.001

I-EMG: %MVC of squat 1RM; mean ± SD for the Vastus Lateralis (VL), Biceps Femoris (BF), Rectus Abdominus (RA), Erector Spinae (ES), Rectus Femoris (RF)
GRFs: N, mean±SD

RESEARCH: SCIENCE BEHIND THE PRODUCT!



FORCE PLATE DATA COMPARISON



EDUCATION



WORLDWIDE IMPACT

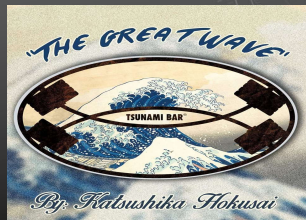
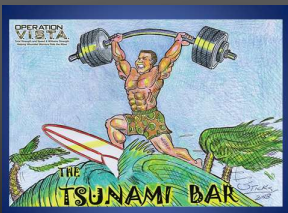


Dubai, UAE



China

FUN CONTRIBUTIONS



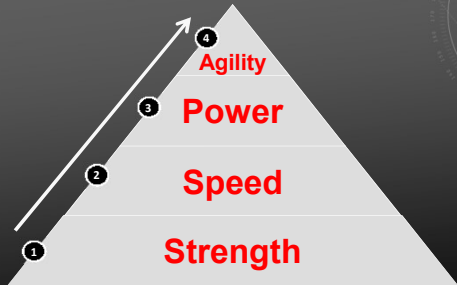
MEDIA PUBLICITY



HOW DO WE SELL OUR CRAFT? PHYSICS!

- **Newton's Third law:** When one body exerts a force against a second body, the second body simultaneously exerts a force equal in magnitude and opposite in direction to that of the first body
- For every action there is an equal or opposite reaction

Success



STRENGTH

- The ability to generate maximal force in a single voluntary muscle contraction.
- This recruits the most motor units, including the highest threshold motor units.
- These high threshold motor units are the fast twitch (Type IIb & X) and largest muscle fibers that can only be recruited with maximal weight or resistance.

SPEED – THE APPLICATION OF POWER TO SPORT SPECIFIC MOTION

- This could be one component of a complex sport performance such as developing quick hands on an offensive lineman's "punch".
- Or it could be the entire performance such as Olympic Lifting.
- A flexible barbell has proven to enhance speed and muscle contraction.

TO INCREASE ATHLETIC SUCCESS, TRAIN FOR POWER

- Power= Explosive Strength = Strength X Speed
The Ability to Exert Force Quickly.
- Explosive Rotary Hip Drive
- More Force in the Ground Quickly!
- Measured by: Vertical Jump, Med Ball Throw , Margaria-Kalamen Step Test, and Standing Long Jump

AGILITY: THE APPLICATION OF SPEED

- This includes such skills as acceleration, deceleration, changing direction.
- It also includes balance, coordination, and reaction to a changing game situation.




MUSCLE GROUPS – PRIME MOVERS VS. STABILIZERS

- Stabilizers are smaller muscle groups used to balance and stabilize the joints during a lift.
- They include, often times, opposing muscle groups which must adjust and maintain balanced force, especially with an unstable resistance (i.e. strongman competitors lifting kegs filled with shot).
- Free-weights are better for training these compared to machines.
- A flexible barbell is best to train stabilization and control

DEAD WEIGHT VS. "LIVE WEIGHT"

- Most resistance training consists of dead weight.



DEAD WEIGHT VS. "LIVE WEIGHT"

- Most sport performance involves lifting "live weight".



LIFTING "LIVE WEIGHT" REQUIRES STRONG STABILIZER MUSCLES

- Live weight moves and reacts unlike dead weight.
- Live weight resistance changes unexpectedly.
- A live weight training device mimics real life sport performance better than dead weight.



THE DILEMMA : HOW DO WE TRAIN FOR POWER?

- Heavy weights can only be moved slowly (Time-Force Relationship).
- Heavy weights increase risk of injury.
- Light weights move quickly but won't build maximum strength.
- Light weights, moved quickly, must be decelerated or they will fly out of our hands.

THE DILEMMA

HOW DO WE WORK STABILIZERS?

- Machines work muscles at different angles but fail to stimulate stabilizer muscles.
- "core work" targeting stabilizers must be added to workouts - this takes time and energy away from the primary training goals.
- Free weights are dead weight - work stabilizers but in a highly predictable way.

WOULDN'T IT BE GREAT IF WE COULD TRAIN FOR BOTH STRENGTH AND POWER?

- One training device that maximizes the speed of the lift, yet provides maximal resistance at a joint-specific point in the lift?
- A device that stimulates stabilizer muscles with live weight characteristics?
- A device that was as versatile as an Olympic bar, allowing every lift that can be performed on an Olympic bar to be performed on it.

THE TSUNAMI BAR

- Uses submaximal weights but generates maximal forces at critical points in the lift.
- Develops power because weights can be moved at maximal speeds
- Has antipulatory and oscillatory motion for "live weight" feel that develops stabilizer muscles.
- Flexible nature of the bar allows for acceleration through the end of the lift. Has the potential to work opposing muscle groups at the same time.
- Has the potential to work opposing muscle groups at the same time.
- Is safe because the bar is loaded with submaximal weights and conforms to the body better than a stiff bar.

THE TSUNAMI BAR – HOW IT WORKS

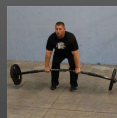
- Maximal forces are generated via the acceleration generated by the downward motion of the flexible bar.
- Force (F) = Mass (M) X Acceleration (A)
- When timed properly, the forces generated by the bar on the downward flex are increased by acceleration.
- This can generate up to 7 times the mass loaded on the bar, determined by our testing machine in a lab.

THE TSUNAMI BAR – HOW IT WORKS

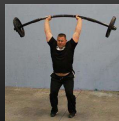
- The maximal forces that are generated only occur for a short time at which point the lifter exerts an "impulse force" to oppose this force.
- This impulse force recruits maximal motor units similar to lifting a 1RM, which stimulates strength development at that joint angle.
- The coach can determine which joint angle correspond to athletic movements and adjust the lifts accordingly.

CLEANS, SNATCH & CSP'S

CLEAN



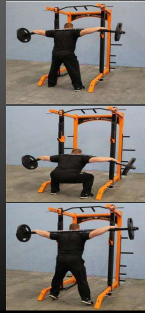
SNATCH



CSP'S

THE SQUAT

- BACK SQUAT
- FRONT SQUAT
- OVERHEAD SQUAT
- 3 STEP PROGRESSION
- ZERCHER SQUAT
- SPLIT SQUAT



THE BENCH

- SPEED BENCH
- FORCE BENCH
- GRIP VARIATION
- INCLINE BENCH
- PUSH/PULL BENCH



TSUNAMI PUSH/PULL





PROGRAM DESIGN

- DAY 1: CSP – CLEAN/SQUAT/PRESS
(PULL – TSUNAMI CLEAN AND PRESS OR JAMMERS X SPEED)
(PUSH – FRONT SQUAT X FORCE)
(PRESS – BENCH PERIODIZATION X VOLUME)
- DAY 2: SPC – SQUAT/PRESS/CLEAN
(PUSH – TSUNAMI BACK SQUAT X SPEED)
(PRESS – INCLINE BENCH PRESS X FORCE)
(PULL – P. CLEAN PERIODIZATION X VOLUME)
- DAY 3: PCS – PRESS/CLEAN/SQUAT
(PRESS – TSUNAMI BENCH X SPEED)
(PULL – HANG SNATCH X FORCE)
(PUSH – SQUAT PERIODIZATION X VOLUME)

TSUNAMI BARBELL PROGRAM DESIGN WEEK 1 DAY 1

DYNAMIC MOVEMENT PREEN

FRONT BACK SWING SKIPS @ 20 YARDS STRIDE
 FORWARD SWING SKIPS @ 20 YARDS STRIDE
 BACKWARD SWING SKIPS @ 20 YARDS STRIDE
 SIDE SWING SKIPS @ 20 YARDS STRIDE
 HIGH KNEE CARIOCA @ 20 YARDS FLIP
 SIDE SHUTTLE @ 20 YARDS FLIP
 3 WHISTLE AS @ 20 YARDS STRIDE

GUTS, SHOULDERS & SHOULDER

HANDS/SHOULDER COMBO 15 REPS EACH
 MID BALL COMBO 15 REPS EACH
 KETTLEBELL COMBO 15 REPS EACH
 4WAY NECK 15 REPS EACH

POWER/STRENGTH TRAINING (60% DAY)

TSUNAMI JAMMER OR CLEANS 6,6,6,6,6 @ 90%
 15,15,15,15,15

FRONT SQUAT 15,15,15,15,15

BENCH PRESS PERIODIZATION

15 @ 90% 1 @ 80% 1 @ 80% 1 @ 80%
 1 @ 90% 1 @ 80% 1 @ 80% 1 @ 80%

COMBOS:

A. LUNGE WALKS 12,12,12
 B. PULL THROGHS 12,12,12
 C. BACK EXTENSIONS 12,12,12

COMBOS:

A. REVERSE HYPER 12,12,12
 B. LOW ROW 12,12,12
 C. LAT PULL 12,12,12

COMBOS:

A. TRICEP EXTENSIONS 12,12,12
 B. HAMMER CURLS 12,12,12
 C. GRIP ROLLERS 3,8,15

COMBOS:

A. PLATE SHOULDER RAISES 12,12,12
 B. SIDE RAISES 12,12,12
 C. BLAST STRAP RAISES 12,12,12

DYNAMIC MOVEMENT PREP:
 FRONT BACK SWING SKIPS 20 YARDS STRIDE
 FORWARD SWING SKIPS 20 YARDS STRIDE
 BACKWARD SWING SKIPS 20 YARDS STRIDE
 SIDE SWING SKIPS 20 YARDS STRIDE
 HIGH KNEE CARIOCA 20 YARDS FLIP
 SIDE SHUFFLE 20 YARDS FLIP
 3 WHISTLE AS 20 YARDS STRIDE

COMBO #1:
 PLATYBRID JUMPS 3 SETS
 STAND GOOD MORNS 12.12.12
 3 WAY CALVE RAISES 3 SETS

GUTS, NECK & SHOULDERS:
 HAND SHOULDER COMBO 15 REPS EACH
 MED BALL COMBO 15 REPS EACH
 KETTLEBELL COMBO 15 REPS EACH
 4 WAY NECK 15 REPS EACH

COMBO #2:
 REVERSE LUNGE WALKS 10 YARDS X 4
 BOSU BALL SIDE STEP LUNGES 12.12.12
 REVERSE HYPER 12.12.12

POWER / STRENGTH TRAINING: (PCSDAT)
TSUNAMI SPEED SQUATS 6,666.66 @ 80%
INCLINE PRESS 19,108.8

COMBO #3:
 TSUNAMI BAR FRONT BUCKS 12.12.12
 TSUNAMI PUSH PULL BEND OVER ROWS 12.12.12
 TSUNAMI CURBS 12.12.12

POWER CLEAN PERIODIZATION:
 6 @ 12:00L - 10 @ 1:00P - 6 @ 2:00P
 6 @ 6:00M - 6 @ 7:00P - 6 @ 8:00P

COMBO #4:
 GRIP WORK / WRIST ROLL UPS 12.12.12
 10 @ 10:15 - 10 @ 11:15 - 10 @ 12:15

DYNAMIC MOVEMENT PREP:
 FRONT BACK SWING SKIPS 20 YARDS STRIDE
 FORWARD SWING SKIPS 20 YARDS STRIDE
 BACKWARD SWING SKIPS 20 YARDS STRIDE
 SIDE SWING SKIPS 20 YARDS STRIDE
 HIGH KNEE CARIOCA 20 YARDS FLIP
 SIDE SHUFFLE 20 YARDS FLIP
 3 WHISTLE AS 20 YARDS STRIDE

COMBO #1:
 A. DB INCLINE BENCH 12.12.12
 B. THREE WAY SHOULDER RAISE 12.12.12
 C. DB TRICEP EXTENSIONS 12.12.12

GUTS, NECK & SHOULDERS:
 HAND SHOULDER COMBO 15 REPS EACH
 MED BALL COMBO 15 REPS EACH
 KETTLEBELL COMBO 15 REPS EACH
 4 WAY NECK 15 REPS EACH

COMBO #2:
 A. LAT PULL 12.12.12
 B. LOW ROW 12.12.12
 C. BACK EXTENSIONS 12.12.12

POWER / STRENGTH TRAINING: (PCS DAT)
TSUNAMI SPEED BENCH 6,666.66 @ 80%
HANG SNATCH 5,433.33

COMBO #3:
 A. BUCKS 12.12.12
 B. REVERSE HYPER 12.12.12

BACK SQUAT PERIODIZATION:
 12 @ 6:00P - 10 @ 7:00M - 6 @ 8:00P
 10 @ 6:00P - 10 @ 7:00P - 10 @ 8:00P

COMBO #4:
 A. HAMMER CURBS 12.12.12
 B. CALVE RAISES 12.12.12

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SALES REP SPOTLIGHT

USA ACTIVE SALES TERRITORY

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