		Case 3:16-cv-02761-BTM-DHB Document 1	Filed 11/09/16 Page 1 of 19				
PHONE: (949) 855-1246; FACSIMILE: (949) 855-6371	1 2 3 4 5 6 7 8 9	Kit M. Stetina (SBN 82,977) Stephen Z. Vegh (SBN 174,713) STETINA BRUNDA GARRED & BRUCKER 75 Enterprise, Suite 250 Aliso Viejo, CA 92656 Email: litigate@stetinalaw.com Tel: (949) 855-1246 Fax: (949) 855-6371 Attorneys for Plaintiff THIRTY THREE THREADS, INC.					
	9 10 11	IN THE UNITED STATES DISTRICT COURT					
	11 12	FOR THE SOUTHERN DIST	RICT OF CALIFORNIA				
	13 14	THIRTY THREE THREADS, INC., a California corporation	Case No. <b>'16CV2761 BTM DHB</b>				
	15 16	Plaintiff	COMPLAINT FOR PATENT INFRINGEMENT OF U.S. PATENT NO. 7,346,935				
	17	VS.	DEMAND FOR JURY TRIAL				
	18 19	HUGGER MUGGER YOGA PRODUCTS, LLC, a Delaware limited liability company; and DOES 1-10, inclusive					
	20 21	Defendants					
	22 23 24 25 26 27 28	COMPLAINT Plaintiff, Thirty Three Threads, Inc., formerly known as Toesox, Inc. (hereinafter "Plaintiff"), for its Complaint against Hugger Mugger Yoga Products, LLC, states and alleges as follows: <u>PARTIES</u> 1. Plaintiff, Thirty Three Threads, Inc., formerly known as Toesox, Inc., is <sub>Case No.</sub> 1					
		COMPLAINT FOR PATENT INFRINGEMENT OF U.S. PATENT NO. 7,346,935					

STETINA BRUNDA GARRED & BRUCKER 75 ENTERPRISE, SUITE 250 ALISO VIEJO, CALIFORNIA 92656 a corporation organized and existing under the laws of the State of California, and having a principal place of business at 1330 Park Center Drive, Vista, California 92081.

2. Upon information and belief, Defendant Hugger Mugger Yoga Products, LLC (hereinafter "Hugger") is a Delaware limited liability company, and having a principal place of business at 1190 S Pioneer Road, Salt Lake City, Utah, 84104.

3. The true names and capacities of the Defendants named herein as DOES 1 through 10, whether individual, corporate, associate, or otherwise, are unknown to Plaintiff, who therefore sues said Defendants by said fictitious names. Plaintiff is informed and believes, and thereon alleges, that each of the Defendants designated herein as DOE is legally responsible for the events and happenings hereinafter alleged and legally caused injury and damages proximately thereby to Plaintiff as herein alleged. Plaintiff will seek leave to amend the Complaint when the true names and capacities of said DOE Defendants have been ascertained. Hugger and DOES 1 through 10 are hereinafter collectively referred to as "Defendants".

4. Plaintiff is informed and believes, and on that basis alleges, that each of the Defendants participated in and is in some manner responsible for the acts described in this Complaint and any damages resulting therefrom.

5. Plaintiff is informed and believes, and on that basis alleges, that each of the Defendants has acted in concert and participation with each other concerning each of the claims in this Complaint.

6. Plaintiff is informed and believes, and on that basis alleges, that each of the Defendants were empowered to act as the agent, servant and/or employees of each of the other Defendants, and that all the acts alleged to have been done by each of them were authorized, approved and/or ratified by each of the other Defendants.

# JURISDICTION AND VENUE

7. This action, as hereinafter more fully appears, arises under the patent laws of the United States of America (35 U.S.C. §§1 *et seq.*), and is for patent

COMPLAINT FOR PATENT INFRINGEMENT OF U.S. PATENT NO. 7,346,935

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Case No.

infringement. Jurisdiction for all counts is based upon 28 U.S.C. §§1331, 1338(a) and (b).

8. Venue is proper under 28 U.S.C. §§1391(b) and (c) as Defendants have committed acts of infringement in this judicial district.

# BACKGROUND OF THE CONTROVERSY

9. On March 25, 2008, United States Patent No. 7,346,935 entitled "Stretchable High Friction Socks" ("the '935 patent") was duly and legally issued to Joe Patterson. Plaintiff is the record owner by assignment of the '935 patent with full and exclusive right to bring suit to enforce this patent. A true and copy of the '935 patent is attached hereto as Exhibit A.

10. The '935 patent shall be referred to herein as the "patent-in-suit".

11. The '935 patent relates generally to foot apparel, including a woven sock having a multitude of high friction buttons arrayed around the bottom thereof.

12. Plaintiff has extensively marketed and promoted a yoga sock covered by the '935 patent under the brand ToeSox for approximately 12 years.

13. Plaintiff is informed and believes that it has marked its ToeSox products with the '935 Patent throughout this period.

14. The advertising channels through which Plaintiff marketed and promoted the yoga socks covered by the patent-in-suit includes journals, magazines, and tradeshows, amongst others, that reach a nationwide audience of retailers and customers having an interest in yoga, pilates, and other active lifestyle products and services.

15. Prior to the initial filing of the instant action, Plaintiff purchased from
Defendants a yoga sock. Defendant's yoga sock appears to be sold under the product
name "Yoga Sock Full Toe" (hereinafter "the Accused Product"). A true and correct
photocopy of the yoga sock Accused Product is attached hereto as Exhibit B. True
and correct printouts of the Accused Products on Defendant's website
www.huggermugger.com are also included in Exhibit B.

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16. The Accused Product identified in Exhibit B is a woven sock made from an elastic, stretchable knit material forming tubular ankle and foot portions, with the foot portion including toe, ball and heel sections. The foot portion has five forward projecting seamless, stretchable toe tubes. The Accused Product also has a multitude of high friction buttons arrayed under the bottom and adhered to at least the bottom of the toe, ball, and heel sections.

The Accused Product is a copy of Plaintiff's own Toesox yoga sock 17. product and the inventions disclosed in the patent-in-suit. The Accused Product infringes at least claim 1 of the '935 Patent. Based on the level of copying by the Accused Product of the features disclosed in the patent-in-suit as embodied in the Toesox yoga sock and the fact that defendant has purchased the Toesox yoga sock from Thirty Three Threads, it may be inferred that Defendant clearly had knowledge of Plaintiff's ToeSox product prior to the institution of this action.

18. In view of the Accused Product being a copy of the ToeSox yoga sock, it may also be reasonably inferred that Defendant had actual notice of the patent-in-suit, including the '935 Patent marking on the ToeSox product prior to the institution of this action.

By its copying of the ToeSox product and selling it to customers and 19. retailers in the United States, it may be inferred that Defendant knew the technology embodied by the ToeSox product would be valuable in the U.S. marketplace.

20. Defendants' Accused Product has no non-infringing use as it is solely intended to be worn as foot apparel, including as a yoga sock. Defendant knows the Accused Product is especially made or adapted solely for an infringing use.

21. Defendants have been and are infringing the '935 patent by making, using, offering for sale, selling and/or importing the sock product. Defendants' acts of infringement have occurred within this district and elsewhere throughout the United States.

(444) 855-6371 STETINA BRUNDA GARRED & BRUCKER 11 ALISO VIEJO, CALIFORNIA 92656 75 ENTERPRISE, SUITE 250 12 FACSIMILE: 13 14 (949) 855-1246; 15 16 17 PHONE:

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# FIRST CLAIM FOR RELIEF

# (Patent Infringement of U.S. Patent No. 7,346,935)

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22. Plaintiff realleges and repeats the allegations of paragraphs 1-21 above.

23. Plaintiff is the owner of all right, title and interest to United States Patent No. 7,346,935 entitled "Stretchable High Friction Socks". A true and correct copy of the '935 patent was duly and lawfully issued on March 25, 2008 and is presently valid and in full effect.

24. Upon information and belief, Defendants have been and are infringing the '935 patent within this district and elsewhere in the United States by making, using, selling, importing, distributing and/or offering for sale products that infringe one or more of the claims of the '935 patent.

25. Upon information and belief, Defendants are contributorily infringing the '935 patent within this district and elsewhere in the United States by making, using, selling, importing, distributing, or offering for sale in the United States materials for use in practicing the inventions set forth in the '935 patent, that they know to be especially made or especially adapted for use in infringement of the invention embodied in the '935 patent. Upon information and belief, these materials have no substantial non-infringement use in commerce.

26. Upon information and belief, Defendants are inducing infringement of the '935 patent within this district and elsewhere in the United States by instructing in the use of materials that infringe one or more of the claims of the '935 patent, as evidenced in amongst others Defendant's marketing and promotional materials, including but not limited to those depicted in Exhibit B. In view of Defendant's prior knowledge of Plaintiff's Toesox product and the patent-in-suit, as well as the effect the offering for sale and sale of the Accused Product would have on the marketplace and Plaintiff's business, Defendant specifically intended through its instruction in the use of the Accused Product for third parties to infringe the '935 Patent and knew that the sale of the Accused Product would result in activities by third parties that would

constitute the infringement of the '935 Patent.

27. Upon information and belief, by the acts of patent infringement herein complained of, the Defendants have made substantial profits to which they are not equitably entitled.

By reason of the aforementioned acts of the Defendants, the Plaintiff has 28. suffered great detriment in a sum which exceeds this Court's jurisdictional amount, but which cannot be ascertained at this time.

29. Upon information and belief, Defendants continue to infringe Plaintiff's '935 patent, and will continue to infringe Plaintiff's '935 patent to Plaintiff's irreparable harm, unless enjoined by this Court.

Upon information and belief, Defendants have been aware of the 30. issuance of the '935 Patent and any past and continuing infringement of the '935 patent by Defendants has been and will be willful, entitling Plaintiff to enhanced damages.

# **PRAYER FOR RELIEF**

WHEREFORE, Plaintiff prays for judgment against the Defendants as follows:

A judgment that Defendants have infringed, contributorily infringed, A. and/or induced infringement of the patent-in-suit;

Β. A judgment that Defendants' infringement of the patent-in-suit has been willful;

С. A preliminary and permanent injunction, pursuant to 35 U.S.C. §283, enjoining Defendants, and all persons in active concert or participation with them, from any further acts of infringement, contributory infringement or inducement of 24 infringement of the patents-in-suit;

25 D. An order, pursuant to 35 U.S.C. §284, awarding Plaintiff damages 26 adequate to compensate Plaintiff for Defendants' infringement of the patents-in-suit, 27 in an amount to be determined at trial, but in no event less than a reasonable royalty; 28

An order, pursuant to 35 U.S.C. §284, trebling all damages awarded to E. Case No.

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Plaintiff based on Defendants' willful infringement of the patents-in-suit;

F. An order, pursuant to 35 U.S.C. §285, finding that this is an exceptional case and awarding to Plaintiff its reasonable attorneys' fees incurred in this action; and

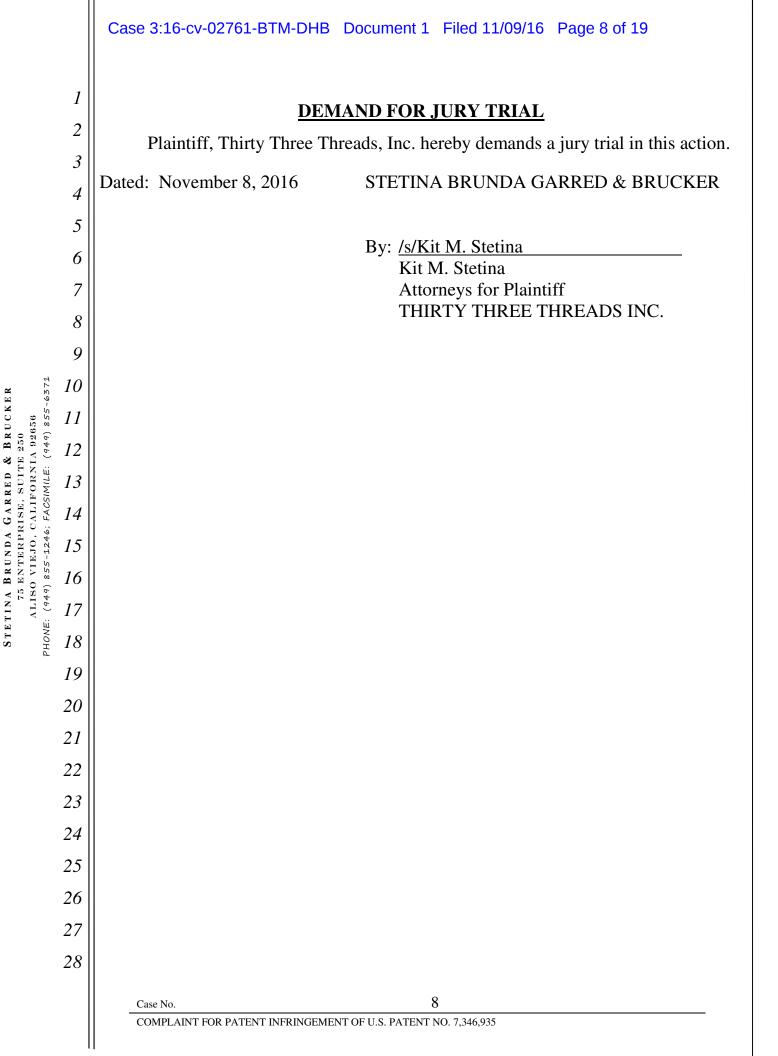
G. That Plaintiff have such other and further relief that the Court may deem just and proper.

Dated: November 8, 2016

STETINA BRUNDA GARRED & BRUCKER

By: <u>/s/Kit M. Stetina</u> Kit M. Stetina Attorneys for Plaintiff THIRTY THREE THREADS, INC.

Case No.



# Exhibit A

Case 3:16-cv-02761-BTM-DHB Doc



US007346935B1

# (12) United States Patent

## Patterson

## (54) STRETCHABLE HIGH FRICTION SOCKS

- (75) Inventor: Joe Patterson, San Pedro, CA (US)
- (73) Assignee: ToeSox, Inc., Carlsbad, CA (US)
- (\*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.
- (21) Appl. No.: 11/179,068
- (22) Filed: Jul. 12, 2005
- (51) Int. Cl.
- *A43B 17/00* (2006.01)
- - See application file for complete search history.

## (56) **References Cited**

## U.S. PATENT DOCUMENTS

1,308,483 A	7/1919	Craighead
1,314,356 A *	8/1919	Nordblad 66/187
2,179,124 A *	11/1939	Jesnig 36/8.1
3,128,763 A	4/1964	Langenfeld et al.
3,676,940 A *	7/1972	Shively 36/8.1
4,146,935 A *	4/1979	Hinton 2/161.3
4,322,894 A	4/1982	Dykes
4,651,354 A	3/1987	Petry

# (10) Patent No.: US 7,346,935 B1

## (45) **Date of Patent:** Mar. 25, 2008

4,728,538	A *	3/1988	Kaspar et al 427/288
4,775,345	A *	10/1988	Gifford 441/75
5,205,071	Α	4/1993	Hergenroeder
5,737,776	A *	4/1998	Jennings 2/409
5,774,898	Α	7/1998	Malpee
6,016,575	Α	1/2000	Prychak
6,138,281	A *	10/2000	Chiaruttini 2/239
6,158,253	A *	12/2000	Svoboda et al 66/178 R
6,367,087	B1 *	4/2002	Spillman et al 2/239
6,378,139	B1 *	4/2002	Mazzaglia 2/242
D480,554	S *	10/2003	Roddy et al D2/989
6,708,348	B1	3/2004	Romay
6,766,536	B1	7/2004	Aarons
7,012,525	B1 *	3/2006	Ghioto 340/552
7,107,626	B1	9/2006	Andrews
2002/000003	A1*	1/2002	Boersema 2/239
2003/0074718	A1*	4/2003	English 2/239
2004/0221371	A1*	11/2004	Kato 2/239
2005/0091725	A1	5/2005	Alley
2005/0091729	A1	5/2005	Alley
2005/0144703	A1 $*$	7/2005	Hilbert 2/239
2006/0026740	A1 $*$	2/2006	Vargas et al 2/239

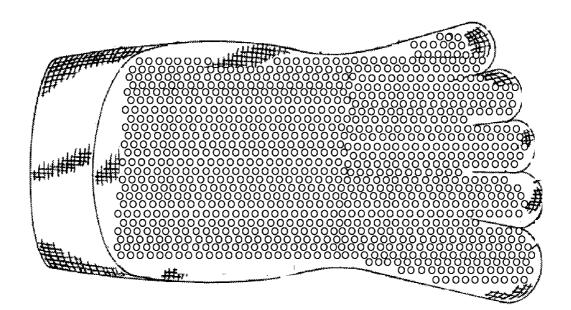
\* cited by examiner

Primary Examiner—Alissa Hoey (74) Attorney, Agent, or Firm—Manuel F. de la Cerra

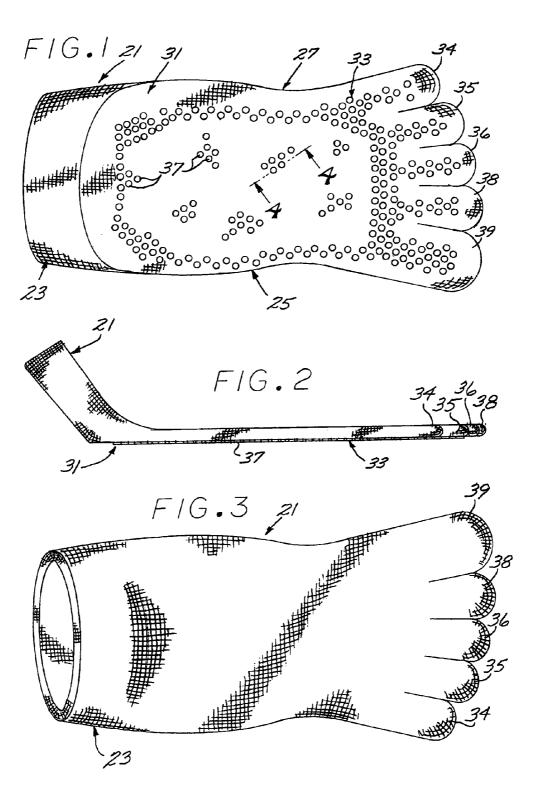
#### (57) ABSTRACT

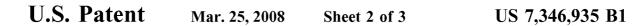
A woven sock body having a multitude of high friction dots defining friction buttons arrayed around the bottom thereof.

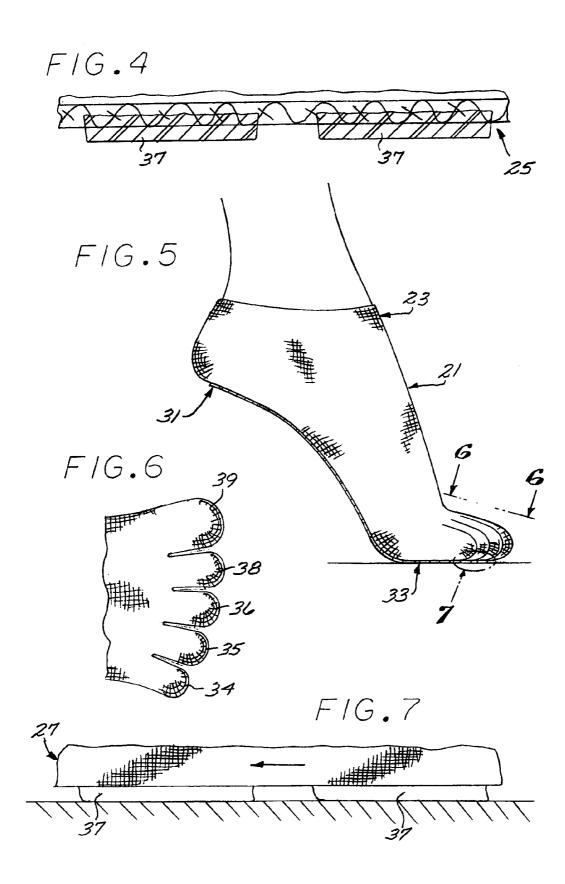
#### 8 Claims, 3 Drawing Sheets



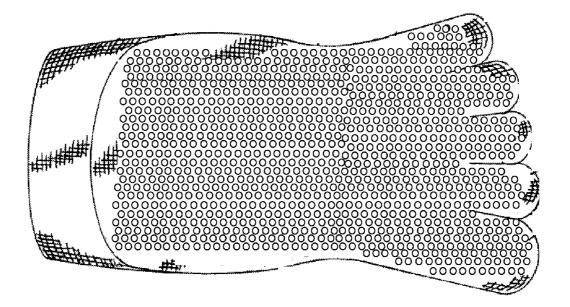








<b>U.S. FAUTIL</b> Nar. 25, 2008 Sheet 3 of 3 US 7.340.935	U.S. Patent	Mar. 25, 2008	Sheet 3 of 3	US 7,346,935 BI
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**FIGURE 8** 

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## STRETCHABLE HIGH FRICTION SOCKS

#### CROSS-REFERENCES TO RELATED APPLICATIONS

Text

#### FIELD OF THE INVENTION

The present invention relates generally to socks and 10 particularly to low profile active wear socks that can be worn for various exercises and disciplines and particularly pilates, yoga, karate, gymnastics and other floor sports.

#### BACKGROUND OF THE INVENTION

#### Description of the Prior Art

Various slippers and footwear have been proposed for use in active routines involving quick precise movement on a 20 floor surface. Early work led to the proposal of stockings formed with tubes for receipt of a wearer's toes so that the toes could be articulated in use. A stocking of this type is shown in U.S. Pat. No. 1,308,483 to Craighead.

Other efforts have led to the proposal of socks of various 25 configurations to address issues of perspiration. One such dry sock system is shown in U.S. Pat. No. 6,016,575 to Prychak. This sock is constructed with an upper portion fabricated from an elastomeric material and a lower portion constructed from an absorbent material and including toe 30 sections. Socks of this type are satisfactory for their intended purpose but suffer the shortcoming that participants involved in active floor sports wearing such socks would not typically enjoy feeling of firm and reliable gripping with the underlying floor.

Various footwear has been proposed to enhance the performance of, for instance, track and field participants. In this regard, it has been proposed to construct a form fitting foot and toe cover from a stretchable fabric and to apply a rubber like material by a spatula to the entire bottom of the covering 40 conception, upon which this disclosure is based, may readily or to specific selected areas to act as spikes as by a hot melt glue. A device of this type is shown in U.S. Pat. No. 4,651,354 to Petrey. Petrey purposes that the rubberized material be built up to form a spike shape for better grip of the track or playing field. While satisfactory for track or field 45 sports, such coverings have the shortcoming that the rubberized pads or spikes do not typically provide for firm gripping with a floor surface and, for instance, pilates. Furthermore, full sole coverings or spike-like patches do not lend to use or comfortable low profile relatively thin woven 50 sock material and would likely be subject to cracking as the material was flexed in use.

The need for anti-skid gloves and footwear in high disciplined yoga exercises has long been recognized. In this regard, it has been proposed to provide footwear constructed 55 of leather and covered in certain areas by a rubber material. Device of this type are shown in U.S. Pat. No. 6,766,536 to Aarons. While providing some support against slippage, devices of this type suffer the shortcoming that the footwear does not provide for a high degree of flexing and identical 60 toe tubes and fails to afford the tactility simulating the feel of bare foot exercises.

Other efforts to provide gloves and socks for yoga activity has led to a proposal that a sock be formed with a separate big toe tube, the remaining toes being housed together at the 65 end of the sock and a low coefficient of friction material be added. A device of this type is shown in Publication No.

2005/0091729 published May 5, 2005 to Alley. Such socks suffer a number of shortcomings including the fact that for pilate applications it is important that the five toes of the foot be allowed to spread apart during the athletic maneuvers involved and that all five toes have a high coefficient grip with the underlying floor surface.

Other athletic socks have been proposed which include separate toe compartments and are designed particularly for athletic activity. Such a sock is shown in U.S. Pat. No. 6,708,348 to Romay. Socks of this type suffer the shortcoming that, in addition to being relatively expensive to manufacture, they have a relatively slippery sole surface which discourages use in direct contact with floor exercises.

#### SUMMARY OF THE INVENTION

The gripping sock of the present invention is characterized by a woven low profile sock configured with a sole area having small dots in the form of high friction buttons arrayed about the bottom thereof to, in practice, maintain frictional contact with the underlying support surface during the active maneuvers in a floor exercises.

There has been outlined rather broadly the more important features of the invention in order that the detailed description thereof that follows may be better understood and in order that the present contribution to the art may be better appreciated. There are, of course, additional features of the invention that will be described herein and which will form the subject matter of the claims appended hereto.

In this respect, before explaining my preferred of the invention in detail, it is to be understood is not limited in its application to the details of construction and to the arrangements of the components set forth in the following description or illustrated in the drawings. The invention is capable 35 of other embodiments and of being practiced and carried in various ways. Also, it is to be understood that the phraseology and terminology employed herein are for the purposes

of descriptions and should not be regarded as limiting. As such, those skilled in the art will appreciate the be utilized as a basis for the designing of other structures, methods and systems for carrying out the several purposes of the present invention. It is important, therefore, that the claims be regarded as including such equivalent constructions in so far as they do not depart from the spirit of the present invention.

The sock will be form fitting and actually present a feeling not unlike a second skin. The toes are separated in practice to enhance the balance, flexibility, performance and minimize perspiration. In those embodiments where the sock is constructed of cotton, a natural fiber that breathes that, it serves to reduce moisture and friction between the toes, provides precise control and can eliminate blistering during workouts.

Other features and advantages of the invention will become apparent from the following detailed description, taken in conjunction with the accompanying drawings which illustrate, by way of example, the features of the invention.

#### BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a bottom plan view of a gripping sock embodied in the present invention;

FIG. 2 is a left hand side view thereof;

FIG. 3 is a top plan view thereof;

FIG. 4 is a partial vertical sectional view, in a large scale, taken along the line 4-4 of FIG. 1;

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FIG. 5 is a right side view, in reduced scale, of the high friction sock of FIG. 1 on a wearer's foot;

FIG. 6 is a partial top plan view taken along the line 6-6 of FIG. 5; and

FIG. 7 is a detail view, in a large scale, taken from the 5 circle 7 in FIG. 5.

FIG. 8 is a bottom view of an embodiment of the gripping sock with at least 500 high friction buttons.

#### DETAILED DESCRIPTION OF THE INVENTION

Referring to FIGS. 1, 4 and 7, the gripping sock of the present invention includes, generally, a knit tube 21 in the shape of a sock, an ankle portion 23 foot portion 25 and sole 15 27. The sole includes heel and ball and sections 31 and 33 toe sections formed by the bottom walls of respective tubes 34, 35, 36, 37, 38 and 39 adhered to the underside of the sole portion is an array of high friction small diameter buttons 37 spaced throughout and located under at least the heel ball 20 and toe portions of the sock.

Socks and particularly golf socks and the like are available in a relatively thin gauged material and are typically woven such that the sock material will stretch to fit over feet of various different sizes and shapes. In my invention, I 25 prefer a relatively thin gauged weave, seamless weave, preferably about 30 gauge, to enhance the tactile characteristics thereof in use. The heddle may be about  $130 (60 \times 2)$ and the thread 30S single cotton. 30S single cotton is a specific example of a more general class of materials com- 30 prised of natural fibers. A sock is typically formed with a band around the ankle area and with a cup shape in the area of the heel section 31. In a typical sock for adult use, the sock, in its unstretched condition, may have a sole width of about 31/2" inches and be about 6" inches long. I prefer to 35 have a fairly dense concentration of high friction buttons 37 disposed about the entire sole area and particularly in the heel ball and toe section. I have found that by applying a generally uniform concentration of small diameter buttons about the sole area I can be assured that the working foot  $_{40}$ area of the athlete in contact with the underlying floor surface will always have several buttons in contact with the floor surface to maintain a high friction resistance to unwanted slippage. In my preferred embodiment, I array the buttons in a diagonal, spaced apart rows underneath the sole 45 and arranged in checker board fashion so as to also form approximately 27 to 29 longitudinal columns spaced laterally apart and about 33 lateral rows spaced longitudinally apart. I array about 13 to 15 buttons in the section underneath the big toe and about 8 to 9 under the second toe, 7 to 50 9 under the third toe, about 7 on the fourth toe and about 5 under the little toe.

Underneath the ball, arch and heel I prefer at least 500 buttons (see FIG. 8), 900 preferably and for high energy activities about 950 buttons so that the small diameter 55 buttons will add only minimum bulk to the body of the sock and present little resistance to foot articulation, while assuring that a plurality of buttons are always in contact with the underlying surface to thus maintain a firm grip to prevent accidental slippage.

In my preferred embodiment, I provide buttons which actually are more like dots and having a horizontal cross section of about 1/8" of an inch, a height of about 1/16" of an inch and a pattern spacing buttons uniformly apart 3/8" of an inch center to center. The button are preferably manufac- 65 tured of rubberized material having substantial flexibility and are either flat on the bottom or formed with upwardly

concave dimples to act as mini-suction cups when pressed against smooth polished floor. The sock body may be woven in a conventional manner and the button adhered thereto by a high temperature and moisture resistant adhesive.

With this construction I have discovered that the participant can easily slide the gripping sock onto his or her foot and to present a feel not unlike that of a bare foot thus affording maximum flexibility, maneuverability and gripping action. The placement of the wearer's toes within the 10 toe tubes 34, 35, 36, 38 and 39 positions the toes for ready splaying during various floor maneuvers such that the toes can be bent in the metatarsal area as shown in FIG. 5 to spread out as shown in FIG. 6 to thus provide a high degree of maneuverability and flexibility giving the athlete a sense of freedom and security as is so important for pilates. As the exercise is undertaken and forces applied through the foot to the underlying floor, the composite array of buttons in, for instance, the ball and toe area will provide total support for the wearer's weight and will resist slippage as shown in FIG. 7 thereby maintaining a firm grip on the floor surface and resisting unwanted sliding during the floor maneuver.

My invention has proven particularly popular amongst pilates enthusiasts. In this regard, the socks are relatively compact to pack in the wearer's tote kit and, when the exercises are to be commenced, the wearer's street shoes may be removed and the thin woven sock will readily stretch approximately 10% to slide over the wearer's foot and up over the ankle with the toes being received in the toe tubes 34, 35, 36, 38 & 39 as shown in FIGS. 5 and 6. Then, as the wearer manipulates through various maneuvers, whether with the weight primary on the heel, on the ball, foot or up on the toes a firm reliable grip will be maintained with the floor surface. That is, the multiple friction buttons under the ball of the foot and toe as the wearer rises up on the ball of the foot and toes as shown in FIG. 5, the toes are free to splay apart and, on the order of 44 to 45 buttons under the toes and an additional 4 to 5 rows of buttons under the ball of the foot will be in contact with the floor to thus create a substantial cumulative area of frictional contact to provide a stable and reliable support platform under the foot to thereby generate confidence in the mind of the wearer. The buttons, being dimpled upwardly in the center of the bottom surfaces, tend to assume an individual large area foot prints to afford a high degree of frictional contact and acting somewhat as small suction cups.

As the wearer moves about the floor and assumes different positions thus maneuvering the foot about from front to back and side to side, her or she can expect a high number of buttons to maintain favorable contact with the floor surface to thus afford a grip which will minimize slippage irrespective of the particular degree to which the foot is articulated medially, laterally, forward or back.

From the foregoing, it will be apparent that the high grip foot sock of the present invention provides an economical and highly reliable sock which is comfortable to wear, reliable and which will enhance the tactical feel one desires to achieve in high skill active floor exercises.

I claim:

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- 1. A high friction grip sock comprising:
- an elastic, stretchable knit material forming tubular ankle and foot portions, the foot portion including a sole portion defining toe, ball and heel sections;
- the foot portion formed at its forward extremity with five forwardly projecting seamless, stretchable toe tubes to be stretched and received over the respective toes of a wearer:

## US 7,346,935 B1

- an array of high friction buttons spaced uniformly about and adhered to at least the bottom of the toe, ball and heel sections and having respective horizontal cross sections of about an <sup>1</sup>/<sub>8</sub><sup>th</sup> of an inch; and
- the knit material is comprised of about 30 gauge thread 5 and the material comprises a blend of a natural fiber and an elastic material.
- 2. The high friction grip sock of claim 1 wherein:
- the buttons are spaced apart by about a  $\frac{3}{8}^{th}$  of an inch.
- **3**. The high friction grip sock of claim **1** wherein: 10 the knit material is constructed with a heddle of about 130 (60×2).
- 4. The high friction grip sock of claim 1 wherein:
- the knit material is constructed to have a stretch of about 10%.
- 5. The high friction grip sock of claim 1 that includes:
- at least 500 high friction buttons.
- 6. The high friction grip sock of claim 1 wherein:
- the high friction buttons have a horizontal dimension of at least an  $\frac{1}{6}$ <sup>th</sup> of an inch.

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7. The high friction grip sock of claim 1 wherein:

- the high friction buttons have a circular horizontal cross section with a diameter of about an  $\frac{1}{3}$ <sup>th</sup> of an inch.
- **8**. A high friction sock comprising:
- an elastic, seamless, knit material comprised of about 30 gauge thread, and a heddle of about 130 with at least 10% stretch and configured to form an ankle and foot portions, the foot portion including bottom wall defining a ball and heal sole sections and the foot portion further including five forwardly disposed seamless toe tubes, the respective bottom walls of the toe tubes defining toe sock section;
- an array of high friction buttons having a horizontal cross sectional dimension of about an  $\frac{1}{8}t^{th}$  inch and a height of about a  $\frac{1}{16}t^{th}$  and spaced uniformly throughout and adhered to at least the sole section;
- the knit material comprises a blend of a natural fiber and an elastic material.

\* \* \* \* \*

# Exhibit B



