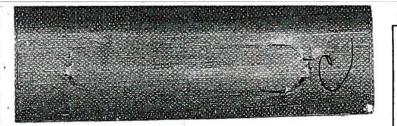
38 38	.y.	Subclass	FICATION
1c518 U.S.	327 2	Class	ISSUE CLASSIFICATION





## U.S. UTILITY PATENT APPLICATION

O.I.P.E.

SCANNED SCANNED O.A. MAN 1 6 2001

SECTOR CLASS SUBCLASS ART UNIT EXAMINER

24.2 28/6 Mandage

FILED WITH: DISK (CRF) FICHE

## PREPARED AND APPROVED FOR ISSUE

74 - 17 <del>- 11 -</del> 13		ISSUING C	LASSIF	ICATIO	ON	A .		
ORIGINA	ÁL	1		CROSS P	EFERENCE	(S)		
CLASS	SUBCLASS	CLASS	ASS PER BL	BLOCK)				
377	24.2		4		-	~		
INTERNATIONA	CLASSIFICATION		-/ 0					
G01C 2	1/00	1		1	10			
				10	F			
	1							
	1/							0
	1/		La La la		Continued	on Issue Slip	Inside File J	acket

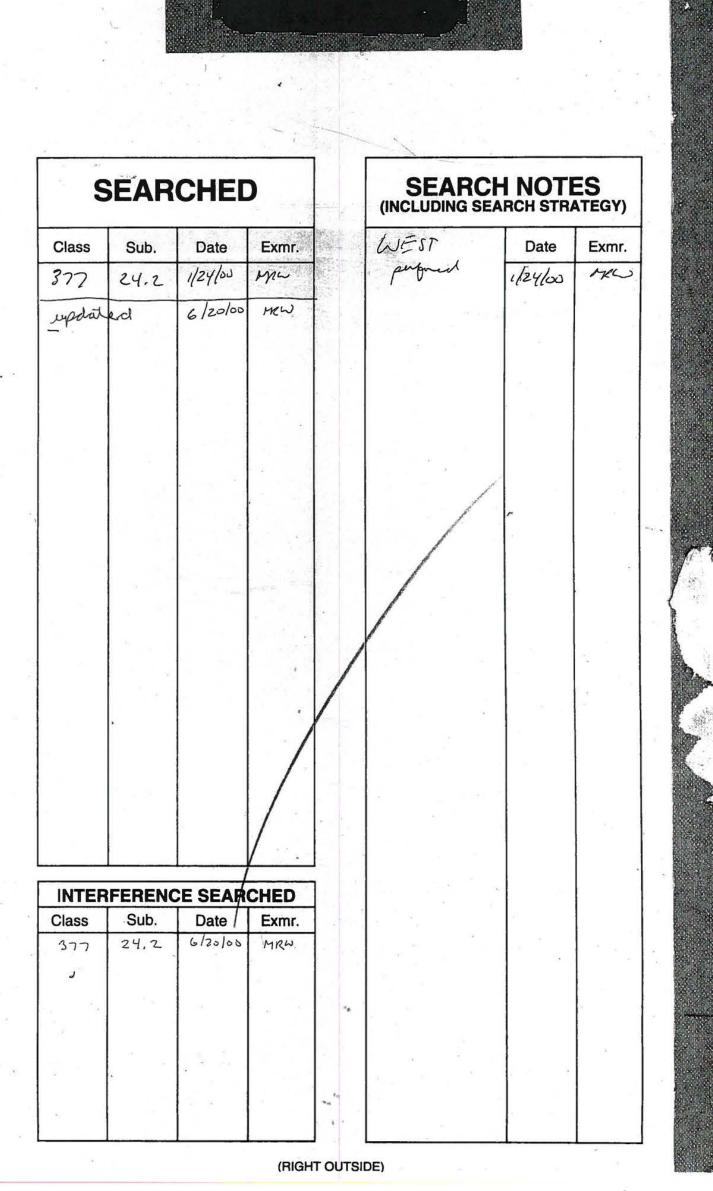
TERMINAL		DRAWINGS	Market and a	CLAIM	S ALLOWED
L DISCLAIMER	Sheets Drwg.	Figs. Drwg.	Print Fig.	Total Claims	Print Claim for O.G.
a) The term of this patent subsequent to (date) has been disclaimed.	(Assistant I	Examiner)	(Date)	NOTICE OF ALL	OWANCE MAILED
b) The term of this patent shall not extend beyond the expiration date	Marga	ret R. Wambac	h	6/2	JE FEE RA
of U.S Patent. No	Prin	hery Examiner		Amount Due	Date Paid 9/25/60
c) The terminalmonths of this patent have been disclaimed.	Judy (Legal instrume	TOMU ents Examiner)	W6/22/0		CH NUMBER
WARNING: The information disclosed herein may be resi Possession outside the U.S. Patent & Tradem					5, Sections 122, 181 and 368.

Form PTO-436A (Rev. 6/96)

Format irawings (\_\_snts) Issue Fee

(LABEL AREA)

PATENT APPLICATE	ON 100 100 100 100 100 100 100 100 100 10	1/38	INITIALS	
	10/28	/98	NOV	U~98
09181738	CONT	TENTS	Andrews Comment	
	(Incl. C. of M.)			Date received Incl. C. of M.
1 9	or Date Mailed	* , * ,		or Date Mailed
1 Application papers.		42.		Date mailed
3 Dec L	11/17/90	43		
3 Dec K 1 fee	5-10-99	44.	į.	: :
1 DS	2-18-99	45.	45	
15 Suppl. FDS	12-22-99	46.	1	w 1, 15
20 Res (3 - 46)	1-28-40	47.	7.1	
7 Secret DS	2/2/00	48.		
4.tonts	932100	49.		
Sur S	3/2/100	50		
Ma Suple Toby	9100	51.		1
11300 973	6/19/90	52.		
1210PTOL37=	(a/21/00)	53.		•
F.D.S	8/14/00	54	× ×	
Suc PTOL 37-	10-17-00	į 55.		•
15. 12/1/2000 mandel L/ sides s	est 9/25/00 U	56		* **
16.		57	-	
17		58.		
18.	Į.	59	Water of the same of the same of	
19.		60.		
20.		61		
21		62	2010 01400	
22		63		
23.		64	٠,	1 -
24		65		• • • • • •
25		66		
<b>26.</b>		67		-1
27		68.		
28	*	69		
29.		70		
30		71		
31.		72		
32.		73		· 2
33	- 1	74		
34.		75		
35		76		j.
36.		77		10 1
37		78		
38		79		
39		80		
40		81.	N 1975	



## ISSUE SLIP STAPLE AREA (for additional cross references)

POSITION	INITIALS	ID NO.	DATE
FEE DETERMINATION	11/10	249	
O.I.P.E. CLASSIFIER	7.	12	11/6
FORMALITY REVIEW	127	59934	11-13-58

## **INDEX OF CLAIMS**

V	Rejected	N	Non-elected
=	Allowed	1	Interference
_	(Through numeral) Canceled	Α	Appeal
÷	Restricted	0	Objected

Clair	n					0	Dε	ite			17		١	Cla	im					
-	DI CILIBI	124/6	1											Final	Original			000000000000000000000000000000000000000		Ī
-0	7	Ì	1	+		$\vdash$	+	+	t	1	+	H		-	51		-	-	-	t
	7	1	t	1	-	1	+	1	1	+	1	$\vdash$			52	-		$\vdash$	$\vdash$	t
3	b	+	†	7		$\vdash$	$^{\dagger}$	+		1	1	1			53	_	_	$\vdash$		t
1	H	+	+	+	_	1	+	-	$\vdash$	+	1				54	-		$\vdash$		t
A S	K	4	t	1			T	+	1	$\vdash$			1		55			$\vdash$		t
2	ž	1	1	1	- A	1	+	T	$\vdash$		1		1		56	1				t
	ř	†	t	7	-	T	+	$\vdash$	1	$\vdash$	T	1	1		57					t
i_	в	7	T	7	,	1	$\top$	1		1	1		1		58			-		t
	Ы	7	1	1			$\top$	T	$\vdash$	$\vdash$					59					t
1	ď	1	Ť	1		T					1				60	$\top$				t
1	Ħ	1		1				1			1			7	61					t
	2	1	1	7			T	$\top$	1	T	1				62					t
2 1	3	1	1	7			1	1	$\vdash$	1	$\vdash$	$\vdash$	1		63				$\overline{}$	t
1	4	7	T	7		$\vdash$	$\top$	T	$\vdash$	$\vdash$	T				64		_			t
3 1	5	1	T	1				1					1		65	1			-	t
4 1	_	T	1	1	2016			T					1		66					t
5 (1	7)	1	1	7			T	T			1		1		67		- 1			t
6 1	В	T	T	7		T	T		T		1		1		68	$\neg$				t
7 1	-	T	T	7	_	$\vdash$	$^{\dagger}$		$\vdash$				i		69	$\neg$				t
3 2	-	+	$^{\dagger}$	1		1	T	1			1				70	-				t
9 2	-	+	+	+	-	1	+	+-	-	-	+	-		-	71	$\rightarrow$		-	_	t
0 2	-	+	H	+		-	+	+		$\vdash$	1	-	1		72	_	_	-		t
1 2		+	✝	+		-	╁		$\vdash$	$\vdash$	-	-		-	73		- 1		-	t
12 2	-	Ţ	1	+	-	1	+	+	1		+	$\vdash$			74	-			-	t
13 2	_	+	$^{\dagger}$	+	-	ļ	t	╁	1	╁	1	-			75	_	-			t
4 2		+	1	+		1	十	+	<del>                                     </del>		+	1,5		_	76	_			_	t
15 2	7	+	+	1	_	-	+	+	-	-	-	$\vdash$			77					t
162	_	t	+	+		$\vdash$	$\vdash$	1			<u>,                                    </u>				78		-			t
1 2		t	t	1		1	+	$\vdash$		1	1				79	$\neg$				t
8 3	-	t	+	1		1	t	$\vdash$	1	1	1				80	_				t
	11	+	1	+			╁	+	$\vdash$	$\vdash$	$\vdash$	_		_	81	$\dashv$	_	$\vdash$		t
20(3	-	†	t	1	_						1				82					t
li  3		†		†	-	1	T			1	1		1		83	-				t
2 3	4	t	1	7			T		1		T	_			84					t
23 3	_	t	T	1		1	$\vdash$	†	1	$\vdash$	1	Т	1		85	$\neg$				t
24.3	_	t	T	7		1	1				$\vdash$		1		86	$\top$				t
	7	1	1	†		-	T		-						87					t
6 3	_	+	t	1			$\vdash$	†	$\vdash$		1				88		_			t
7 3	9	t	T	†			$\vdash$	$\vdash$	_		$\vdash$			$\overline{}$	89	$\neg$	7			t
8 4	-	t	H	+	-		$\vdash$		$\vdash$	1				_	90	1	_			t
9 4	-	t	-	+	-	-	+	-	-		-			-	91	+	-			t
0 - 4:	-	+	┝	+	-	H	╁	+	-	┢	-	┢			92	-	_		-	╁
1 4	_	+	┝	+	-	-	╁	+	┢	-	-			-	93	-	-		$\vdash$	H
2 4	-	+	┝	+			╁	$\vdash$	$\vdash$	-	-	-		$\vdash$	94	-		-	_	ł
	_	+	-	+	-	-	╁	+	-	-	-			-	95	+	_			╀
2 4	=	<b>Y</b>	1	+	-	-	+	+	-		-	-	- 25			+	-	-	$\vdash$	+
4	-	_	$\vdash$	+		-	-	+	-	-	-	-		$\vdash$	96	-	-	-	-	+
4	-		-	+	-	-	+-	$\vdash$	-	$\vdash$	-			-	97 98	+	-		$\vdash$	+
4	-	_	-	+	_	-	-		-	-	-			-	98	+	_	-	-	╀
4	u,																			

_		9279			_		-	_	19		
Cle	im			_	_	Da	te	_	1	No.	
Final	Original				360				A STATE	EPHILIAS.	
ш	101			-	-	$\vdash$	100	H	-		
-	101	-	-	-	-	-	H	┝	-	淵	
-	103	-	-	-	┝	$\vdash$	┝	-	-	塑器	
-	104	-		H	H	-	-	H	- 0	100	1000 1000
=	105		-		$\vdash$	-	H	-	Н	燈	
	106			-	$\vdash$	-		H		166	900
	107						-	-		1708 F136	E C
	108						_			42	影
	109									188	
	110							Г	-1	8	9
	111		21507						,		846
	112									1/4	酸
	113									(5)	
	114		_							43	
	115									1000	AR.
	116									1	200
	117									菠	ji.
	118									18	
	119	_			_			L		75	
	120										
	121									199	
	122						L	_		温	獸
	123									26	
	124		_		_					4	8
_	125	_	_	_	_	_	_		L	A	
_	126	_	_	_	_	_			_	178	御
	127			-	_	_	. (4)	-	_	18	
-	128 129	-	-	_	-	_		L		樓	(S)
-	130		H	H	-	-		_	-	1,6	
-		-	$\vdash$	-	-	-	-	-	H	-12	999 629
+	131 132		-		-	-	-	-	-	- 9	7020 3389
	133	-			-	-	-	H	-		100
-	134		-			$\vdash$	-	-	-	- 15	150
	135		-	-	-	-	-	-		28	33
	136		Н	-		-	-	$\vdash$		173.5	1
	137					_			0		201
	138				П	77	7			14	論
_	139						-			33	100
_	140									18	NE
	141		20.77		-					- 1	0.00
-	142		Н		H	-	-		*	-	140
	143	1								-	101
	144				-			М	-		3
	145							-			-
	146										93
	147										
	148									T	
Ü	149							Г			
	150						-				

If more than 150 claims or 10 actions staple additional sheet here

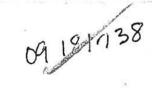
(LEFT INSIDE)

*	* *		*.	
			· ·	w <sup>ee</sup> so
	PATENT	APPLICATION SERIAL  U.S. DEPARTMENT		
`\		PATENT AND TRA	DEMARK OFFICE	
11/03/1998 GNAS 01 FC:101 02 FC:102 03 FC:103	HING 00000027 150660 09 38.00 CH 752500 164.00 CH 550.00 CH	9181738 D)(0P		
PTO-1556 (5/87)	6			

## Printed 10/28/2000

SERIAL NUMBER	FILING DATE	CLASS	GROUP ART UNIT	ATTORNEY DOCKET NO
09/181,738	10/28/1998	377	2816	EPIXINC-4
APPLICANT				
NATHAN PYLES, LA	AKE MILLS, WISCONS -SHUI JUNG, TAIPEI	IN; JOEL M MACHT,	REECEVILLE,	i weet
**CONTINUING DON	MESTIC DATA*****	******		
-				
**371 (NAT'L STA VERIFIED	AGE) DATA******	*****		
-				
**FOREIGN APPLIC VERIFIED	CATIONS********	*****		
<u> </u>				
	*			
	1977		A Like	
FOREIGN FILIN	G LICENSE GRANT	PED 11/13/1998		SMALL ENTITY
FOREIGN FILIN	G LICENSE GRANT	PED 11/13/1998		SMALL ENTITY
			SHEETS	TOTAL   INDEPENDENT
oreign priority claimed 5 USC 119 (a-d) conditions	O yes O no s met O yes O no O Met after Al	Ilowance STATE OR COUNTRY		
Foreign priority claimed 15 USC 119 (a-d) conditions Verified and acknowledged	O yes O no s met O yes O no O Met after Al	Ilowance STATE OR COUNTRY	DRAWINGS	TOTAL INDEPENDENT CLAIMS
Foreign priority claimed 15 USC 119 (a-d) conditions /erified and acknowledged ADDRESS LATHROP & CLARK 740 REGENT STREE	O yes O no s met O yes O no O Met after Al Examiner's Name Initials	Ilowance STATE OR COUNTRY	DRAWINGS	TOTAL INDEPENDENT CLAIMS
Foreign priority claimed 15 USC 119 (a-d) conditions /erified and acknowledged ADDRESS LATHROP & CLARK	O yes O no s met O yes O no O Met after Al  Examiner's Name Initials  LLP ET SUITE 400	Ilowance STATE OR COUNTRY	DRAWINGS	TOTAL INDEPENDENT CLAIMS
Foreign priority claimed 5 USC 119 (a-d) conditions /erified and acknowledged ADDRESS AATHROP & CLARK 740 REGENT STREE P.O. BOX 1507 AADISON , WI 537	O yes O no s met O yes O no O Met after Al  Examiner's Name Initials  LLP ET SUITE 400	Ilowance STATE OR COUNTRY	DRAWINGS	TOTAL INDEPENDENT CLAIMS
Foreign priority claimed 15 USC 119 (a-d) conditions /erified and acknowledged ADDRESS LATHROP & CLARK 740 REGENT STREE	O yes O no s met O yes O no O Met after Al  Examiner's Name Initials  LLP ET SUITE 400	Ilowance STATE OR COUNTRY	DRAWINGS	TOTAL INDEPENDENT CLAIMS
Foreign priority claimed 15 USC 119 (a-d) conditions Verified and acknowledged ADDRESS LATHROP & CLARK 740 REGENT STREE P.O. BOX 1507 MADISON , WI 537 TITLE PEDOMETER FILING FEE	O yes O no o met after Al Examiner's Name Initials  LLP ET SUITE 400	Ilowance STATE OR COUNTRY	DRAWINGS 1 O All Fees	TOTAL INDEPENDENT CLAIMS 45 5
Foreign priority claimed 15 USC 119 (a-d) conditions (serified and acknowledged ADDRESS LATHROP & CLARK 740 REGENT STREEP 1.0. BOX 1507 (ADDISON , WI 537)	Examiner's Name Initials  LLP ET SUITE 400  701-1507  FEES: Authority has been No. to charge/c	Ilowance STATE OR COUNTRY	DRAWINGS 1 O All Fees	TOTAL INDEPENDENT CLAIMS 45 5  (Filing) (Processing Ext. of Time)

UTILITY		Attorney D	ocket	No. E	PIXINC-	Total Page	s O.
PATENT APPLICATION	ON -		F		d Inventor or Ap	nlication Identi	-
TRANSMITTAL	ŀ	Nathar			- Inventor or rip	phonion rooms	o e
(Only for new nonprovisional applications under 37	OFF LEAGEN	Express M			EM164411	DACTIC	
		Express M	an La	Del No.			- 8
APPLICATION ELEME See MPEP chapter 600 concerning utility pat		contents.	ADD	RESS TO	: Box Patent	ommissioner for Application 1, DC 20231	r Patents.
1. X Fee Transmittal Form			6.	1	licrofiche Comp		Appendix)
2. X Specification	ate for fee proc [Total Pages		7.	Nunlas	tide and/or Amir	a Anid Common	aa Cuhmia
Specification     (preferred arrangement set forth)		19 ]	7.		icable, all necess		ce Subinis
- Descriptive title of the Invention				а.	Computer Re	eadable Copy	
- Cross References to Related Ap				h	Paper Conv.	identical to con	montar con
<ul> <li>Statement Regarding Fed spons</li> <li>Reference to Microfiche Append</li> </ul>				b.	raper Copy (	identical to cor	nputer cop
- Background of the Invention	uix			c.	Statement ve	rifying identity	of above of
- Brief Summary of the Invention				1	OMPANYING	A DDI TO ATTON	TDADTO
- Brief Description of the Drawin	gs (if filed)			ACC	OMPAN YING	APPLICATION	PARIS
- Detailed Description			8.	_ A	ssignment Paper	rs (cover sheet	& docume
<ul><li>Claim(s)</li><li>Abstract of the Disclosure</li></ul>			9.		7 CFR 3.73(b) S		Power of
		<del></del> .			when there is an		Attorne
	[Total Sheets [Total Pages	1 ]	10. 11.		nglish Translation formation Discl	-	Copies
	[Total Lages		11.		tatement (IDS)/I		Citation
a. Newly executed (original or	A STATE OF THE PARTY OF THE PAR	000000000	12.	-	reliminary Amer		
b. Copy from a prior application (for continuation/divisional)			13.		eturn Receipt Po Should be specifi		
[Note Box 5 below]	Willi Dok 17 o	ompieted)	14.		mall Entity		ent filed in
,					tatement(s)	applica	ation, Stati
i. DELETION OF INVENTOR	2/9)		15.		ertified Copy of	MANAGER WILLIAM TO THE STREET	and desire
Signed statement attached d		or(s)	13.		f foreign priority		-inda)
named in the prior application 1.63(d)(2) and 1.33(b).	on, see 37 CFF	2					
5. Incorporation By Reference (useable if	Box 4b is checke	d).	16.		ther:		
The entire disclosure of the prior	application, fro	om which		$\square$			
a copy of the oath or declaration i 4b, is considered as being part of					-		
accompanying application and is							
reference therein.  17. If a CONTINUING APPLICATION,	check engrand	ate hov en	l gunn	ly the reco	isite information	,.	
Continuation Divisional		ation-in-pa		.50	prior applicatio		
	18. CORE						
		020	EF			7 0	
Customer Number or Bar Code Label	(Insert Custome	020, 4 er No. or Atta		ode label h	ere) or	Corresponde	nce addres



## ABSTRACT OF THE DISCLOSURE

The pedometer having improved accuracy by calculating actual stride lengths of a user based on relative stride rates. The pedometer includes a waist or leg mounted stride counter, a transmitter for transmitting data to a wrist-mounted display unit, and a data processor for calculating necessary base units and actual stride rates and lengths. The pedometer can also interact with a heart monitoring device.

09/18/738

The undersigned hereby certifies that this document is being deposited with the United States Postal Service today

19 72 by the "Express Mail" service, utilizing express mail label number

EMIGHHUSH505

addressed to: Assistant Commissioner for Patents, Weshington, D.C. 20231.

Name of Person algains

Sighature of person mailing this document

### PEDOMETER

Nathan Pyles Joel M. Macht Chen Shui-Jung

#### FIELD AND BACKGROUND OF THE INVENTION

The present invention relates generally to pedometers having a waist mounted stride-counting device and transmitter, and a wrist-mounted receiver and display. The invention also relates to a distance calculation device that calculates a distance walked or run based on an algorithm that converts a base stride length and a base stride rate to an actual stride length for use in calculating the distance traveled.

Pedometers are known which include devices or algorithms for determining the distance a person travels on foot. For example, U.S. Patent 4,371,945 discloses an electronic pedometer that calculates distance by electronically measuring the length of each stride taken by a user. Stride length is measured by ultrasonic waves generated by an ultrasonic module strapped to one leg and an ultrasonic detector worn on the other leg. A program compensates for a variety of measurement errors and the results are displayed on a wrist-mounted display after being transmitted by VHF waves from the leg to the wrist.

1

15

20

25

30

U.S. Patent 4,771,394 discloses a computer shoe with a heel-mounted electronic device with an inertia footstrike counter, a timer, a sound generating device, a battery, and a gate array for counting time and footstrikes to calculate distance and running time as a function of stride time. Although recognizing the important relationship of stride length and foot speed, the shoe in this patent requires data from at least 15 test runs or walks and the data must be user-entered in pairs of footstrikes and elapsed time to cover a pre-determined distance. Further, user adjustments of time must be performed to accommodate start and stop times, and the number of counted footstrikes is increased one percent to overcome inherent errors in the inertia step counter. The shoe-mounted device is subject to damage from impact, dirt, and water, and requires a stay-at-home computer with which to interface. There is no means disclosed to transmit data to a wrist-mounted display device or an "on-board" computing device that provides "real time" data to a runner.

U.S. Patent 4,855,942 discloses a pedometer and calorie measuring device that includes a wrist-mounted step counter and a fixed stride length to calculate distance traveled. Wrist-mounted step counters are known to be inaccurate because they assume a step for every arm movement. Even with error correction, such a device will provide less accurate step counts than a leg or waist-mounted counter. Further, fixed stride lengths do not take into account the fact that stride length varies with rate of movement.

U.S. Patent 5,117,444 discloses a pedometer and calibration method with two calibration modes. First, a user travels a predetermined "half-distance" for the device to count and store the number of strides in that distance. Next, the user travels a second distance with the step counter comparing actual steps to the steps in memory and a current trip memory are incremented by a tenth of a "whole unit" distance. There is no correlation between stride length and stride rate which requires the user to re-calibrate the device when walking as opposed to running.

U.S. Patent 5,475,725 discloses a pulse meter with pedometer function to determine pace and pulse rate of a user. The meter uses pulse wave base data compared to actual pulse wave data rates.

U.S. Patent 5,476,427 discloses a pace display device utilizing a base rate for

15

20

25

30

traveling pre-set distances in successive trails. The device calculates step counts and rates, and compares actual step count rates to display data to a user for comparison of present running rates to previous rates.

Thus, there is a need for a simple, but highly accurate, pedometer that displays distance traveled, pace, speed, heart rate, and other important information on an easily read wrist-mounted device.

#### SUMMARY OF THE INVENTION

The present invention overcomes problems and shortcomings in the prior art by providing a device that includes a waist, chest, or leg-mounted stride counting device, a transmitter, and a wrist-mounted receiver/display device that provides highly accurate travel distances and other information. The device includes a computer that stores base stride length and rate data from traveling a pre-determined distance and compares that to actual stride rate data to calculate actual distance traveled, speed, and pace. The invention recognizes the interdependency of stride length and stride rate and uses that relationship to provide superior distance-calculating accuracy.

The invention also provides for improved display of relevant data on a wristmounted display that receives digital signals from devices worn on other body parts such as legs, waist, and chest. Transmitters that can send coded signals are desirable because they will not interfere with similar devices worn by other users in the vicinity.

The accuracy of the device is enhanced by the use of an algorithm that adjusts a base stride length based on actual stride rates. The algorithm is defined as: Actual Stride Length = Base Stride Length + Base Stride Length \*(((Actual Stride Rate - Base Stride Rate) N)/Base Stride Rate); where N is either an average value or a derived value from a plurality of samples.

The invention also includes a method for calculating an actual stride length including steps of: timing a first user run of a predetermined distance; counting the total number of strides in the user first run; dividing the first run distance by the stride count to obtain a base stride length; dividing the stride count by the first run time to obtain a base stride rate; counting strides during a user's second run to obtain an actual stride rate; calculating the actual stride length using the formula: Actual Stride

15

20

25

30

Length = Base Stride Length + Base Stride Length
\*(((Actual Stride Rate - Base Stride Rate )N)/Base Stride Rate); wherein N is an
average value or a derived value.

The average value method can be refined by comparing Base Stride Rate to Actual Stride Rate to determine a percentage difference; and using N=1 when the Actual Stride Rate ≤ Base Stride Rate \* 1.02 and using N=3 when Actual Stride Rate > Base Stride Rate \* 1.02. A preferred embodiment uses a plurality of sample runs over known distances to derive an accurate N value for each individual.

#### BRIEF DESCRIPTION OF THE DRAWINGS

Fig. 1 is a schematic diagram of a pedometer in accordance with the present invention.

#### DETAILED DESCRIPTION OF THE DRAWINGS

As illustrated in Fig. 1, the present invention is directed to an improved pedometer 20 including: a waist, chest, or leg mounted stride counter 24, and a wrist or waist mounted display unit 26. An optional chest-mounted heart monitor 28 can be included. All of the device components are mounted in suitable housings. The pedometer 20 includes a data processor 30 that is mounted in the same housing as either the step counter 24 or the display unit 26.

The step counter 24 is an inertia device that counts the number of steps a user takes. The number of steps is transmitted to a data archive 32 either directly or via a transmitter 34. The data archive 32 is mounted in the housing with the step counter 24 or the display 26.

The transmitter 34 is mounted in the step counter housing and is preferably an Rf telemetric signal transmitter with a 30 inches to 36 inches transmission range. Alternately, the transmitter is a wireless or wired digital transmitter with a coding function to limit or eliminate interference with other similar devices. The wireless transmission range is set between 30 inches and 36 inches to provide adequate range to transmit signals from a user's waist to wrist, but not so far as to cause interference with other Rf or digital devices in the vicinity.

The transmitter 34 transmits either raw data or calculated distances, pace, etc. to a wrist-mounted display unit receiver 40. The receiver 40 relays a raw data signal

15

20

25

30

to the data processor 30 or a calculated data signal directly to the display panel 42, such as an LCD or LED.

Similarly, the heart rate monitor 28 includes a transmitter 44 that transmits heart rate data to the display unit 26. The heart monitor transmitter 44 can transmit at the same or a different frequency as the stride counter 24, and to the same or a different receiver in the display unit 26. The heart rate transmitter 44 is preferably Rf, but can be digital for the reasons stated above. The range of the heart rate transmitter 44 should also be between 30 inches and 36 inches to ensure effective communication with the receiver while limiting outside interference.

The data processor 30 can also include a programmable logic controller, a personal computer, a programmable read-only memory, or other suitable processor. The data processor 30 includes a data archive 32 to store historic data on stride length and pace to be used in an algorithm for calculating actual distances, speed, and rate for real-time conversion of data to useful information for a user.

The data processor 30 can also include closed loop or fuzzy logic programming to continually or periodically replace the base stride rate and length with recently calculated stride rates and lengths so that long term conditioning trends are accommodated in the base stride archive. Incorporating trend capabilities may further enhance accuracy of the distance and pace calculations.

The display unit 26 also includes an operator interface 46 such as a key pad, button, knob, etc. that enables the user to start and stop a clock 48 (or stop watch) and activate various use modes within the pedometer, such as a sampling mode and operation mode.

One option for using the pedometer 20, requires the user to operate a "sampling mode" and begin walking or running a pre-determined distance such as a mile or 1600 meters, preferably on a running track of a known size. Upon completion of the distance, a stop button on the operator interface 46 is pushed. The data processor 30 is programmed to then divide the distance by the number of strides counted to calculate an average stride length. This value is stored in the data archive 32 as the "Base Stride Length."

Also, the data processor 30 is programmed to divide the number of strides by



15

20

25

30

the time of the run or walk as measured by the clock 48 to arrive at a "Base Stride Rate."

The data processor 30 preferably includes programming that queries the user about the distance to be run during the sampling mode. By providing options or enabling the use of any distance during the sampling mode, the pedometer 20 provides maximum flexibility for use by people of various physical conditions, or having access to courses of different known distances. Thus, a user may be queried to input a distance to be used in the sampling mode and then be given a list of options such as 400 meters, 440 yards, 1600 meters, or one mile, or be asked to simply input any distance known to the user that will be traveled during the sampling mode.

The present invention makes full use of the relationship between a faster rate of travel and longer stride lengths. In other words, the faster a user is moving, the longer will be the stride length. Over the course of the run or walk, the user's step rate and, therefore, stride length will change and the user will cover more ground when moving fast and less ground when moving slow.

Clearly, using a fixed average stride length in calculating distance traveled will result in errors using prior pedometers. This is particularly true if a user changes pace, or improves conditioning and speed to the point where the average stride length over a given run increases dramatically. The error compensators in prior devices do not adjust for changes in pace. With the old devices, a user needed to re-calibrate periodically to be close to getting an accurate reading, and could not change pace during a workout without decreasing accuracy.

To make the correction, the user activates a "Use Mode" in which the data processor 30 calculates an Actual Stride Rate based on data from the stride counter 24 and the clock 48. For example, an Actual Stride Rate can be calculated every five seconds without the user doing more than activating the "Use Mode" button, while all the calculations are performed by the data processor automatically. The percentage change between the Actual Stride Rate and the Base Stride Rate is then computed by the data processor 30 to determine an Actual Stride Length. Again, if the Actual Stride Rate is greater than the Base Stride Rate, the Actual Stride Length is longer than the Base Stride Length. If the Actual Steps Per Second is lower than

15

20

25

30

the Base Steps Per Second, the Actual Stride Length is shorter than the Base Stride Length. The algorithm below provides a means for comparing the Actual and Base Stride rates to arrive at an accurate Actual Stride Length.

First, a comparison between the Actual Stride Rate and the Base Stride Rate is made to determine whether Actual Stride Rate is less than or equal to Base Stride Rate multiplied by 1.02. Stride Length is calculated by:

Actual Stride Length = Base Stride Length +

Base Stride Length \*(((Actual Stride Rate - Base Stride Rate)N)/Base Stride Rate)

Where: N=1 when Actual Stride Rate is less than or equal to Base Stride Rate multiplied by 1.02, and N=3 when Actual Stride Rate is greater than Base Stride Rate multiplied by 1.02, although other N values in the range of one to three can be used.

The above algorithm is accurate for heel to toe activities such as walking or jogging, but is less accurate for sprinting (toe only).

A third method of calculating actual stride length uses three separate run or walk samples at three different paces. This is the most accurate option. With this method, the N values are unique for each individual. By deriving an N value for each individual, this value more accurately reflects the actual change in stride length with a change in pace. After a proper warmup, the user completes a sample run or walk on the track at a normal pace. This first sample S1, will establish the Base Stride and the Base Steps Per Second.

## S1 SAMPLE:

- S1 Stride = Base Stride = Distance / Number of Steps
- S1 Steps Per Second or S1 Steps Per Second = Base Steps Per Second =
  Number of Steps Per Second

Following completion of the first run or walk at normal pace, the user runs or walks the same course and the same distance at a faster run or walking pace, but not a sprinting pace. The user should not run on his toes, but maintain the normal heel to toe jogging style. This is the S2 sample. The purpose of the S2 sample is to calculate an N2 value for each individual which reflects the effect an increase in Steps Per Second has on this individual's stride length. Some individual's steps will lengthen

,

15

20

25

30

more than others as Steps Per Second increases, and by finding the value for N2, this relative increase can be quantified for a more accurate and customized algorithm for each individual.

#### S2 SAMPLE:

To find the N2 value, which will be used by the algorithm when Actual Steps Per Second > Base Steps Per Second

N2 = ((S2 Stride \* S1 Steps Per Second) - (S1 Stride \* S1 Steps Per Second)) / (S1 Stride (S2 Steps Per Second - S1 Steps Per Second))

This value can be calculated since the distance is known, and both a Fast Stride Length (S2 Stride) and a Fast Steps Per Second (S2 Steps Per Second) can be calculated from the second sample.

Following completion of the fast run or walk, the user runs the same course and the same distance at a slower than normal run or walking pace. This pace cannot exceed the first sample pace. This is the S3 sample. The purpose of the S3 sample is to calculate an N3 value for each individual which reflects the effect a decrease in Steps Per Second has on this individual's stride length. Some individual's steps will shorten more than others as Steps Per Second decreases, and by finding the value for N3, this relative decrease can be quantified for a more accurate and customized algorithm for each individual.

#### S3 SAMPLE:

To find the N3 value, which will be used by the algorithm when Actual Steps Per Second < Base Steps Per Second.

N3=((S3 Stride \* S1 Steps Per Second) - (S1 Stride \* S1 Steps Per Second))
/ (S1 Stride (S2 Steps Per Second - S1 Steps Per Second))

This value can be calculated since the distance is known and both a "Slow" Stride Length (S3 Stride) and a "Slow" Steps Per Second (S3 Steps Per Second) can be calculated from the third sample.

Once these three samples are completed and the information automatically calculated and stored in the data processor 30, then the following formula can be used for the most accurate measurements of speed and distance.

If: Actual Steps Per Second is less than or equal to Base Steps Per

15

20

25

30

Second

Then:

Stride Length = Base Stride + Base Stride\*(((Actual Steps Per Second - Base Steps Per Second)N)/Base Steps Per Second)

And N = N3 (Stored Value)

If: Actual Steps Per Second > Base Steps Per Second

Then:

Stride Length = Base Stride + Base Stride\*(((Actual Steps Per Second - Base Steps Per Second)N)/Base Steps Per Second)

And N = N2 (Stored Value)

This third option for calculating stride length, and subsequently distance, speed, and pace, is a far more accurate method than a fixed stride length pedometer. This device and method are also practical, convenient, and has a relatively low manufacturing cost. If an individual's running or walking style is progressing with training and practice (as seen by significantly improved times), then it may be beneficial for them to recalibrate their device by repeating the three samples every 3 to 6 months. If there are no significant improvements in time, then recalibration is not necessary.

It is noted that any single stride length or pace discussed above can in fact be an average of a plurality of stride lengths or rates from test runs to further refine accuracy in the calculations of actual stride data.

Other variations on this device could also incorporate an altimeter which measures changes in elevation. The stride length could then be adjusted (shortened) when elevation is increasing, and lengthened when elevation is decreasing. This adjustment could be done with an average value, as we used in setting option 2, or with a derived value by running or walking over a known distance on a hilly course. This device can use two batteries so that the calibration data is not lost when the batteries are replaced one at a time.

Once the actual stride length is calculated for a given period of time, the value can be multiplied by the number of strides in that period to obtain a total distance for that period to be stored in a data archive file for that particular walk or run and added

15

to other actual stride lengths or distances for other periods in which stride length was calculated. When the run or walk is completed, the user engages the operator interface 46 to indicate that a total distance is to be displayed on the display unit.

Preferably, there is continual display of the distance traveled.

As a result of accurately calculating distance traveled, the pedometer 20 also has the capability of calculating speed in miles per hour, for example or pace in minutes per mile, including average speed and pace over the course of that particular walk or run. Further, the pedometer 20 can include a port for coupling to a separate personal computer or computing device to create larger training histories, trends, etc.

Additional features can include stop watches, day, date and time displays, as well as, heart rate displays as discussed above. Also, it will be understood that all distances and time periods used above can be varied in length and units of measure (English, metric, seconds, minutes, hours, etc.).

The foregoing detailed description is provided for clearness of understanding only and no unnecessary limitations therefrom should be read into the following claims.

a step counter mountable on a user first body portion;

a transmitter in communication with the step counter to generate a signal

corresponding to each step and transmit the signal; and

a receiver mountable on a user second body portion to receive the signal transmitted from the transmitter and calculate a distance measured by the step counter.

- 2. The pedometer of claim 1, wherein the transmitter and the receiver communicate via wireless transmission.
- 3. The pedometer of claim 1, wherein the transmitter and the receiver communicate via a wire.
- 4. The pedometer of claim 1, wherein the transmission signal is digitally coded.

5. The pedometer of claim 1, where in the transmitter transmits the signal a wireless distance in the range of tharty to thirty-six inches.

6. The pedometer of claim, wherein the receiver is mountable on a user's wrist.

7. The pedometer of claim 1, wherein the receiver processes the step count signal and displays the distance traveled on a viewing screen.

8. The pedometer of claim 1, wherein the step counter is mountable on a user's leg.

9. The pedometer of claim 1/and further comprising:

a heart rate monitor; and

a second transmitter in communication with the heart rate monitor to transmit a signal corresponding to a heart rate calculated by the heart rate monitor to the receiver and display the calculated heart rate.

10. The pedometer of claim 9, wherein the heart rate signal is at a different frequency than the pedometer signal.

11. The pedometer of claim 9, wherein the heart rate monitor is mountable to a user's third body portion.

Sub

10

30

A TOESO

The pedometer of claim 9, wherein the heart rate, and the step counter transmitter are mounted in a single chest-mount housing. The pedometer of claim 1 wherein the pedometer includes a data 13. rocessor programmed to calculate a distance traveled by multiplying the number of des taken by a stride length that varies according to the rate at which strides are 14. The pedometer of claim 13, wherein the data processor is programmed to calculate an actual stride length of a user by performing the steps of: timing a user first run of a predetermined distance; counting the total number of strides in the user first run; 10 dividing the first run distance by the stride count to obtain a base stride length; dividing the stride count by the first run time to obtain a base stride rate; counting strides in a period of time during a user second run to obtain an actual stride rate 15 calculating the actual stride length using the formula: Actual Stride Length = Base Stride Length + Base Stride Length \*(((Actual Stride Rate - Base Stride Rate)N)/Base Stride Rate); where N is in the range of between 1 and 3. The pedometer of claim 13, wherein the pedometer is further 20 programmed to perform the steps of: comparing the actual stride rate to the base stride rate; and calculating the actual stride length using N=1 when the actual stride rate is less than or equal to the base stride rate multiplied by 1.02. 4 The pedometer of claim 18, wherein the pedometer is further 16. 25 programmed to perform the steps of:

12

comparing the actual stride rate to the base stride rate; and

calculating the actual stride length using N=3 when the actual stride rate is

greater than the base stride rate multiplied by 1.02.

Sut 53

10

17. A pedometer comprising:

a step counter;

a transmitter in communication with the step counter to generate a signal corresponding to each step and transmit the signal; and

a receiver mountable on a user body portion to receive the signal transmitted from the transmitter and calculate a distance measured by the step counter, and

a data processor programmed to calculate a distance traveled by multiplying the number of strides taken by a stride length that varies according to the rate at which strides are taken.

No. The pedometer of claim N, wherein the transmitter and the receiver communicate via wireless transmission.

19. The pedometer of claim 17, wherein the transmitter and the receiver

communicate via a wire.

15

20

30

20. The pedometer of claim 17, wherein the transmission signal is digitally coded.

21. The pedometer of claim 17, where in the transmitter transmits the signal a wireless distance in the range of thirty to thirty-six inches.

The pedometer of claim K, wherein the receiver is mountable on a user's wrist.

The pedometer of claim 17, wherein the receiver processes the step count signal and displays the distance traveled on a viewing screen.

The pedometer of claim N, wherein the step counter is mountable on

a user's leg

Suk 25

25. The pedometer of claim 17, and further comprising:

a heart rate monitor; and

a second transmitter in communication with the heart rate monitor to transmit
a signal corresponding to a heart rate calculated by the heart rate
monitor to the receiver and display the calculated heart rate.

26. The pedometer of claim 25, wherein the heart rate signal is at a different frequency than the pedometer signal.

13

H

15

20

25

mountable to a user's third body portion.

28. The pedometer of claim 25, wherein the heart rate and the step counter are mounted in a single chest-mount housing.

The pedometer of claim 17, wherein the data processor is programmed to calculate an the distance traveled actual stride length of a user by performing the steps of:

timing a user first run of a predetermined distance;
counting the total number of strides in the user first run;
dividing the first run distance by the stride count to obtain a base stride
length;

The pedometer of claim 25, wherein the heart rate monitor is

dividing the stride count by the first run time to obtain a base stride rate; counting strides in a period of time during a user second run to obtain an actual stride rate;

calculating the actual stride length using the formula:

Actual Stride Length = Base Stride Length + Base Stride Length \*(((Actual Stride Rate - Base Stride Rate)N)/Base Stride Rate);

where N is in the range of between 1 and 3.

The pedometer of claim N, wherein the pedometer is further programmed to perform the steps of:

comparing the actual stride rate to the base stride rate; and calculating the actual stride length using N=1 when the actual stride rate is

- less than or equal to the base stride rate multiplied by 1.02.
- M. The pedometer of claim N, wherein the pedometer is further programmed to perform the steps of:

comparing the actual stride rate to the base stride rate; and calculating the actual stride length using N=3 when the actual stride rate is greater than the base stride rate multiplied by 1.02.

Subj

10

15

20

32. A pedometer programmed to calculate an actual stride length of a user by performing the steps of:

timing a user first run of a predetermined distance; counting the total number of strides in the user first run;

dividing the first run distance by the stride count to obtain a base stride length;

dividing the stride count by the first run time to obtain a base stride rate; counting strides in a period of time during a user second run to obtain an actual stride rate;

calculating the actual stride length using the formula:

Actual Stride Length = Base Stride Length + Base Stride Length \*(((Actual Stride Rate - Base Stride Rate)N)/Base Stride Rate); where N is in the range of between 1 and 3.

The pedometer of claim 32, wherein the pedometer is further programmed to perform the steps of:

comparing the actual stride rate to the base stride rate; and calculating the actual stride length using N=1 when the actual stride rate is less than or equal to the base stride rate multiplied by 1.02.

The pedometer of claim 32, wherein the pedometer is further programmed to perform the steps of:

comparing the actual stride rate to the base stride rate; and calculating the actual stride length using N=3 when the actual stride rate is greater than the base stride rate multiplied by 1.02.

35. The pedometer of claim 32, wherein the receiver processes the step count signal and displays the distance traveled on a viewing screen.

36. The pedometer of claim 32, and further comprising a heart rate monitor mounted in a chest-mount housing.

Sut

10

15

37. A pedometer programmed to calculate an actual stride length of a used by performing the steps of:

timing a user first run of a predetermined distance;

counting the total number of strides in the user first run;

dividing the first run distance by the stride count to obtain a first run base stride length;

dividing the first run stride count by the first run time to obtain a first run base stride rate;

timing a user second run of a predetermined distance;

counting the total number of strides in the user second run;

dividing the second run distance by the second run stride count to obtain a second base stride length;

dividing the second run stride count by the second run time to obtain a second base stride rate;

timing a user third run of a predetermined/distance;

counting the total number of strides in the user third run;

dividing the third run distance by the third run stride count to obtain a third base stride length;

dividing the third run stride count by the third run time to obtain a third run base stride rate;

counting strides in a period of time during a user fourth run to obtain an actual stride rate;

calculating the actual strice length using the formula:

Actual Stride Length = Base Stride Length + Base Stride Length
\*(((Actual Stride Rate - Base Stride Rate)N)/Base Stride Rate);
where N is calculated by the formula ((Second Run Stride Length
multiplied by First Run Stride Rate) - (First Run Stride Length
multiplied by First Run Stride Rate)) / (First Run Stride Length
multiplied by (Second Run Stride Rate - First Run Stride Rate)) when
the Actual Stride Rate is greater than the First Run Stride Rate, and
where N is calculated by the formula ((Third Run Stride Length

20

30

15

20

25

multiplied by First Run Stride Rate) - (First Run Stride Length multiplied by First Run Stride Rate)) / (First Run Stride Length multiplied by (Third Run Stride Rate - First Run Stride Rate)) when the Actual Stride Rate is less than or equal to the First Run Stride

Le Rate.

the first run base stride length is an average stride length calculated from a plurality of test runs; and

the first run base stride rate is an average base stride rate calculated from the

plurality of test runs.

39. The pedometer of claim 37, wherein:

The pedometer of claim 30, wherein:

the second run base stride length is an average stride length calculated from a plurality of test runs; and

the second run base stride rate is an average base stride rate calculated from

the plurality of test runs.

40. The pedometer of claim 37, wherein:

the third run base stride-length is an average stride length calculated from a plurality of test runs; and

the third run base stride rate is an average base stride rate calculated from the plurality of test runs.

The pedometer of claim \$7, wherein the second run is at a faster pace than the first walk or run and the third run is at a slower pace than the first walk or run.

42. The pedometer of claim 37, and further comprising:

a data processor mountable on a user body portion to calculate the actual stride length; and

a run data display device in communication with the data processor and

31 mountable on a user body portion.

The pedometer of claim N, and further comprising a heart rate monitor mounted in a chest-mount housing.

15

A method for calculating an actual stride length comprising the steps

timing a first user run of a predetermined distance; counting a total number of strides in the user first run; dividing the first run time by the stripe count to obtain a Base Stride Length; byst run time to obtain a Base Stride Rate; dividing the stride count by the counting strides in a pre-determined period during a user second run to obtain an Actual Stride Rate;

calculating the actual stride length using the formula:

Actual Stride/Length= Base Stride Length + Base Stride Length \*(((Actual/Stride Rate - Base Stride Rate)N)/Base Stride Rate); wherein N is between one and three.

The method of claim \* and further comprising the steps of comparing Base Stride Rate to Actual Stride Rate to determine a percentage difference; and using N=1 when the difference is less than two percent and using N=3 when the difference is greater than or equal to two percent.

CONC. BEATBIED

Docket No.: EPIXINC-4

#### DECLARATION AND POWER OF ATTORNEY

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor of the subject matter which is claimed and for which a patent is sought on the invention entitled: PEDOMETER, the specification of which

[X]	is attached hereto.		
[]	was filed on	as Application No.	and was amended
	on (if app	licable).	

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I do not know and do not believe that the same was ever known or used in the United States of America before my invention thereof, or patented or described in any printed publication in any country before my invention thereof or more than one year prior to this application, that the same was not in public use or on sale in the United States of America more than one year prior to this application, that the invention has not been patented or made the subject of an inventor's certificate issued before the date of this application in any country foreign to the United States of America on an application filed by me or my legal representatives or assigns more than twelve months prior to this application, that I acknowledge my duty to disclose information of which I am aware which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations, §1.56(a), and that no application for patent or inventor's certificate on this invention has been filed in any country foreign to the United States of America prior to this application by me or my legal representatives or assigns, except as follows: None.

I hereby claim foreign priority benefits under Title 35, United States Code, §119 of any foreign application(s) for patent or inventor's certificate listed below and have also

identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed:

Prior Foreign Application(s)		Managar .		Priority Claimed	
None. (Number)	(Country)	(Day/Month/Year Filed)	[]	[] Yes	No
(Number)	(Country)	(Day/Month/Year Filed)	[]	[] Yes	No

I hereby claim the benefit under Title 35, United States Code, §120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, §112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, §1.56(a) which occurred between the filing date of the prior application and the national or PCT international filing date of this application:

None.		
(Application Serial Number)	(filing date)	(Statuspatented, pending, abandoned)
(Application Serial Number)	(filing date)	(Statuspatented, pending, abandoned)

And I hereby appoint the practitioners associated with the Customer Number provided below to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith, and direct that all correspondence be addressed to that Customer Number:

Customer Number: 020,455

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are

punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Full name of sole Inventor	Nathan Pyles
Inventor's Signature	***************************************
Date	
Residence '	Lake Mills, Wisconsin
Citizenship	United States of America
Post Office Address	529 College Street, Lake Mills,
	Wisconsin 53551
Full name of sole Inventor	Joel M. Macht
Inventor's Signature	
Date	******
Residence	Reeceville, Wisconsin
Citizenship	United States of America
Post Office Address	106 North Avenue, Reeceville, Wisconsin 53579

4
D
-
The same
W
E
-
N
FET

Full name of sole Inventor	Chen Shui-Jung
Inventor's Signature	
Date	
Residence	Taipei, Taiwan
Citizenship	Republic of China
Post Office Address	2 F No. 349, Wu Shin Street, Taipei, Taiwan

PTO/SB/17 (12-97) Approved for use through 09/30/00. OMB 0651-0032
Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. Complete if Known **FEE TRANSMITTAL** Application Number Filing Date First Named Inventor Pyles, et al. Group Art Unit Note: Effective October 1, 1997, Patent fees are subject to annual revision Examiner Name TOTAL AMOUNT OF PAYMENT Attorney Docket Number \$752.00 EPIXINC-4 METHOD OF PAYMENT (check one) FEE CALCULATION (Continued) The Commissioner is hereby authorized to charge indicated fees and credit any over payments to: 3. ADDITIONAL FEES Large Entity Small Entity 15-0660 Fee (\$) Fee Code Fee Code Fee (\$) Fee Paid Fee Description 105 205 Deposit Account Name 130 65 Surcharge - late filing fee or oath Lathrop & Clark 127 50 227 25 Surcharge - late provisional filing fee or cover sheet Charge Any Additional Fee Required Under 37 CFR 1.16 and 1.17 Charge the Issue Fee Set in 37 CFR 1.18 at the Mailing of the Notice of Allowance 139 130 139 130 Non-English specification 2.520 147 147 2.520 For filing a request for reexamination Requesting publication of SIR prior to Examiner action 920\* 920\* 112 112 2. Payment Enclosed: ⊠<sup>Check</sup> Requesting publication of SIR after Examiner action Money Order Other 113 1,840\* 113 1,840 FEE CALCULATION 110 215 55 115 Extension for reply within first month I. FILING FEE 116 400 216 200 Extension for reply within second I Extension for reply within third Small Entity 217 475 Extension for reply within fourth Fee Description 118 1,510 218 755 Fee month 2,060 1,030 128 228 Extension for reply within fifth month I 101 790 201 395 Utility filing fee 310 219 155 Notice of Appeal 119 106 206 165 Design fliing fee 120 310 220 155 Filing a brief in support of an appeal 107 540 207 270 Plant filing fee 121 270 221 135 Request for oral hearing Petition to institute a public use proceeding 108 208 1,510 H 150 Provisional filing fee 110 240 55 Petition to revive - unavoidable SUBTOTAL (1) 141 1,320 241 660 Petition to revive - unintentional 2. CLAIMS Fee from below Extra Fee Paid 142 1,320 242 660 Utility issue fee (or reissue) = [\$275.00 Total Claims -20= X 11 143 450 243 225 Design Issue fee independent Claims X 41 -3= \$82.00 144 670 244 335 Plant issue fee 122 130 122 130 Petitions to the Commissioner Petitions related to provisional applications 135 Multiple Dependent Claims \$0.00 123 50 123 50 Submission of Information Disclosure Statement 126 240 126 240 Large Entity Small Entity Recording each patent assignment per property (times number of properties) Fee (\$) 581 581 Fee Description 40 40 Fee Code Filing a submission after final rejection (37 CFR 1.129(a)) 103 22 203 Claims in excess of 20 790 395 11 146 246 For each additional invention to be examined (37 CFR 1.129(b)) 102 82 202 41 independent Claims in excess of 3 149 790 395 249 104 270 204 135 Multiple dependent claims Reissue independent claims over 109 82 209 41 Other fee (specify) Reissue claims in excess of 20 and over original patent 210 110 22 11 Other fee (specify) SUBTOTAL (2) \$357,00 \*Reduced by Basic Filing Fee Pald SUBTOTAL (3) SUBMITTED BY Complete (if applicable) Jeffry W. 33455 Smith Typed or Printed Name Reg. Number Date Oct. 19, 1998 Signature Deposit Account User ID

# PATENT APPLICATION IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:

Pyles, et al.

Filed:

Simultaneously herewith

For:

Pedometer

Docket No.:

**EPIXINC-4** 

BOX PATENT APPLICATION Assistant Commissioner for Patents Washington, D.C. 20231

> "Express Mail" Mailing Label No.: EM164411845US Date of Deposit: October 28,1998

I hereby certify that these attached documents

- Response postcard
- \* Check in the amount of \$752.00
- \* PTO/SB/17 (1p) and 1 copy
- \* Specification and Claims (19 pages) and informal drawing (1 sheet) and unexecuted Declaration and Power of Attorney (4 pp)
- \* PTO/SB/05 (1p)

are being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 35 C.F.R. §1.10 on the date indicated above and is addressed to the Assistant Commissioner for Patents, Washington, D.C. 20231.

ff W. Smith, Reg. No. 33455)

Enclosed for filing please find the above-referenced new patent application. Please indicate receipt of this application by returning the attached postcard with the official Patent and Trademark Office receipt and serial number stamped thereon.

Respectfully submitted,

Jeffry W. Smith, Reg. No. 33455

Attorney for Applicant

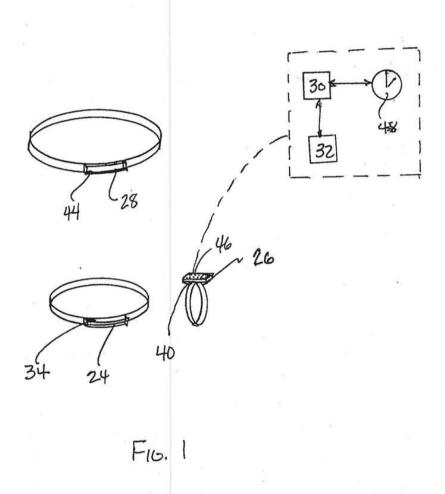
Lathrop & Clark

P.O. Box 1507

Madison, Wisconsin 53701-1507

(608) 257-7766

exprmail.app





ashington, D.C. 20231 APPLICATION NUMBER

FILING/RECEIPT DATE

ST NAMED APPLICANT

ATTORNEY DOCKET NO./TITLE

09/181.738

10/28/498

020455 LATHROP **GLARK** 122 W WASHINGTON AVENUE P 0 BOX 1507

MADISON WI 53701-1507

2818

DATE MAILED:

11/17/98

### NOTICE TO FILE MISSING PARTS OF APPLICATION Filing Date Granted

0242/1117

An Application Number and Filing Date have been assigned to this application. The items indicated below, however, are missing. Applicant is given TWO MONTHS FROM THE DATE OF THIS NOTICE within which to file all required Items and pay fees required below to avoid abancomment. Extensions of time may be obtained by filing a petition accompanied by the extension fee under the provisions of 37 CFR 1.136(a). If any of items 1 or 3 through 5 are indicated as missing, the SURCHARGE set forth in 37 CFR 1.16(e) of \$65.00 for a small entity in compliance with 37 CFR 1.27, or \$130.00 for a non-small entity, must also be timely submitted in reply to this NOTICE to avoid abandonment.

□ sn	nall entity (statement filed) Anon-small entity is \$ / 40
	. The statutory basic filing fee is:  ☐ missing. ☐ this ufficient.
	Applicant must submit \$to complete the basic filing fee and/or file a small entity statement claiming such status (37 CFR 1.27).
□ 2.	. Additional claim fees of \$, including any multiple dependent claim fees, are required.
1	\$ for independent claims over 3.
	\$ for dependent claims over 20.
	for multiple dependent claim surcharge.
1	Applicant must-either submit the additional claim fees or cancel additional claims for which fees are due.
<b>3</b> .	. The eath or declaration:  I is missing or unexecuted.
	does not cover the newly submitted items.
19	does not identify the application to which if applies.
	<ul> <li>does not include the city and state or foreign country of applicant's residence.</li> <li>An oath or declaration in compliance with 37 CFR 1. 63, including residence information and identifying the application by</li> </ul>
	the above Application Number and Filing Date is required.
□ 4.	
	1.43 or 1.47.  A properly signed oath or declaration in compliance with 37 CFR 1.63, identifying the application by the above
2	Application Number and Filing Date, is required.
□° 5.	. The signature of the following joint inventor(s) is missing from the oath or declaration:
	An oath or declaration in compliance with 37 CFR 1.63 listing the names of all inventors and signed by the orbited inventor(s), identifying this application by the above Application Number and Filing Date, is required.
	. A \$50.00 processing fee is required since your check-was returned without payment (37 CFR 1.21(m)).
	. Your filing receipt was mailed in error because your check was returned without payment,
□ 8.	. The application does not comply with the Sequence Rules.
_ 0	See attached *Notice to Gomply with Sequence Rules 37 CFR 1.821-1.825."
Direc	t the reply and any questions about this hotice to "Attention, Box Missing Parts."
in the same	A copy of this notice MUST be returned with the reply.
1	The state of the s

PART 3 - OFFICE COPY

Customer Service Center

Initial Patent Examination Division (703) 308-1202



# Patent Application IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Pyles et al.

Date:

May 4, 1999

Date Filed:

October 28, 1998

Docket No.:

**EPIXINC-4** 

Application Number: 09/181,738

Art Unit:

2816

For:

PEDOMETER

#### **Certificate of Mailing**

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Attention: Box Missing Parts

Assistant Commissioner for Patents,

Washington, D.C. 20231

on May 4, 1999

Date

Signature

Jeffry W. Smith, Reg. No. 33455

Name of applicant, assignee or Registered Representative

TRANSMITTAL OF MISSING PARTS OF APPLICATION UNDER 37 C.F.R. §1.53

Attention: Box Missing Parts
Assistant Commissioner for Patents

Washington, D.C. 20231

Dear Sir:

In response to the Notice of Missing Parts mailed November 17,1998, enclosed are the following items for filing in the above-referenced U.S. Patent application:

1. A Declaration and Power of Attorney, executed by the applicant on March 21,

Applicant: Nathan Pyles Application No.: 09/181,738

Art Unit: 2816

1999; May 3, 1999; and May 3, 1999.

- 2. Form PTO-1533 Notice to File Missing Parts.
- 3. A check in the amount of \$500.00 to cover the filing fee (37 C.F.R. §1.16(a) et seq.), the surcharge set forth in 37 C.F.R. §1.16(e), and extension of time under 37 CFR 1.136(a).
- 4. Verified Statement Claiming Small Entity Status--Small Business Concern, executed on March 21, 1999.
  - 5. Petition for Extension of Time Under 37 CFR 1.136(a).

The Commissioner is hereby authorized to charge payment of any additional fees associated with this communication or credit any overpayment to Deposit Account No. 15-0660. A duplicate copy of this document is enclosed.

Having now complied with all of the requirements of 37 C.F.R. §1.53, applicant respectfully requests that this application be placed upon the files for examination.

Respectfully submitted,

Jeffry W. Smith, Reg. No. 33455

Attorney for Applicant

Lathrop & Clark LLP 740 Regent Street, Suite 400

P.O. Box 1507

Madison, Wisconsin 53701-1507

(608) 257-7766

files.htp

2

Docket No.: EPIXINC-4

#### DECLARATION AND POWER OF ATTORNEY

s a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor of the subject matter which is claimed and for which a patent is sought on the invention entitled: PEDOMETER, the specification of which

. ]	is attached hereto.	× • •
[ X ]	was filed on October	28, 1998 as Application No. 09/181,738 and
	was amended on	(if applicable).

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I do not know and do not believe that the same was ever known or used in the United States of America before my invention thereof, or patented or described in any printed publication in any country before my invention thereof or more than one year prior to this application, that the same was not in public use or on sale in the United States of America more than one year prior to this application, that the invention has not been patented or made the subject of an inventor's certificate issued before the date of this application in any country foreign to the United States of America on an application filed by me or my legal representatives or assigns more than twelve months prior to this application, that I acknowledge my duty to disclose information of which I am aware which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations, §1.56(a), and that no application for patent or inventor's certificate on this invention has been filed in any country foreign to the United States of America prior to this application by me or my legal representatives or assigns, except as follows: None.

I hereby claim foreign priority benefits under Title 35, United States Code, §119 of any foreign application(s) for patent or inventor's certificate listed below and have also

identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed:

Prior Foreign App	olication(s)			Clair	-
None. (Number)	(Country)	(Day/Month/Year Filed)	[]	[] Yes	No
(Number)	(Country)	(Day/Month/Year Filed)	[]	[] Yes	No

I hereby claim the benefit under Title 35, United States Code, §120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, §112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, §1.56(a) which occurred between the filing date of the prior application and the national or PCT international filing date of this application:

None.		
(Application Serial Number)	(filing date)	(Statuspatented, pending, abandoned)
(Application Serial Number)	(filing date)	(Statuspatented, pending, abandoned)

And I hereby appoint the practitioners associated with the Customer Number provided below to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith, and direct that all correspondence be addressed to that Customer Number:

Customer Number: 020,455

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are

punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Full name of sole Inventor Inventor's Signature Date Residence . Lake Mills, Wisconsin Citizenship United States of America Post Office Address 529 College Street, Lake Mills, Wisconsin 53551 Full name of sole Inventor Joel M. Macht fail M. Jean Inventor's Signature Date Residence Reegeville, Wisconsin Citizenship United States of America Post Office Address 106 North Avenue, Reeceville, Wisconsin 53579 1Full name of sole Inventor

Chen Shui-Jung

Inventor's Signature

Date

Archivery Control Control

Date

Archivery Control

Date

Taiwan

Citizenship

Post Office Address

2 F No. 349, Wu Shin Street, Taipei,

Taiwan

PTO/SB/10 (12-97)
Approved for use through 9/30/00. OMB 0651-0031
Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

STATEMENT CLAIMING SMALL ENTITY STAT 1.27(c))—SMALL BUSINESS CONCERN	US (37 GFR 1.9(f) &	Docket Number (Optional) EPIXINC-4
Applicant, Patentee, or Identifier: Nathan Pyles Application or Patent No.: 09/181,738 Filed or Issued: October 28, 1998	MAY 1 0 1999 &	
-Title: Pedometer	TRADEMARKS	THE RESERVE OF THE PERSON OF T
I hereby state that I am	HADEN	
the owner of the small business concern identified be	low:	
an official of the small business concern empowered	to act on behalf of the concern ide	entified below:
NAME OF SMALL BUSINESS CONCERN Epix, Inc.		
ADDRESS OF SMALL BUSINESS CONCERN 621 D East	Lake Street, Lake Mills, Wisconsin	n 53551
I hereby state that the above identified small busines 13 CFR Part 121 for purposes of paying reduced fees to th number of employees of the concern, including those of its statement, (1) the number of employees of the business co concern of the persons employed on a full-time, part-time, year, and (2) concerns are affiliates of each other when eith power to control the other, or a third party or parties control	e United States Patent and Trader affiliates, does not exceed 500 pe ncern is the average over the pre- or temporary basis during each of ner, directly or indirectly, one conc	mark Office, in that the ersons. For purposes of this vious fiscal year of the the pay periods of the fiscal ern controls or has the
I hereby state that rights under contract or law have identified above with regard to the invention described in:	been conveyed to and remain with	the small business concern
M the specification filed herewith with title as listed above	e.	
☐ the application identified above.		
☐ the patent identified above.		
If the rights held by the above identified small busine organization having rights in the invention must file separat to the invention are held by any person, other than the inve 37 CFR 1.9(c) if that person made the invention, or by any under 37 CFR 1.9(d), or a nonprofit organization under 37 CFR 1.9(d).	e statements as to their status as ntor, who would not qualify as an concern which would not qualify a CFR 1.9(e).	small entities, and no rights independent inventor under is a small business concern
Each person, concern, or organization having any rig	hts in the invention is listed below	r:
no such person, concern, or organization exists.		
each such person, concern, or organization is listed b	elow.	
Separate statements are required from each named stating their status as small entities (37 CFR 1.27).	person, concern or organization h	aving rights to the invention
I acknowledge the duty to file, in this application or p entitlement to small entity status prior to paying, or at the ti fee due after the date on which status as a small entity is no	me of paying, the earliest of the is	sue fee or any maintenance
NAME OF PERSON SIGNING Nathan Pyles	2/16	
TITLE OF PERSON IF OTHER THAN OWNER President	New 1	
ADDRESS OF PERSON SIGNING 529 College Street, Lak	e Mills, Wisconsin 53551-1412  DATE 3/1/9	19
The state of the s	3/11/3	1

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

217

PTO/SB/22 (12-97)
Approved for use through 9/30/00. OMB 0651-0031
Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of

Information unless it displays a valid OMB control number. Docket Number (Optional) EPIXINC-4 PETITION FOR EXTENSION OF TIME UNDER 37 CFR 1.136(a) In re Application of Nathan Pyles Application Number 09/181,738 October 28, 1998 For PEDOMETER Group Art Unit 2816 Examiner This is a request under the provisions of 37 CFR 1.136(a) to extend the period of filing a response in the above identified application. The requested extension and appropriate non-small-entity fee are as follows (check time period One month (37 CFR 1.17(a)(1)) Two months (37 CFR 1.17 (a)(2)) Three months (37 CFR 1.17(a)(3)) Four months (37 CFR 1.17(a)(4)) Five months (37 CFR 1.17(a)(5)) Applicant is a small entity under 37 CFR 1.9 and 1.27, therefore the fee amount shown above is reduced by one-half, and the resulting fee is: \$435.00. A small entity statement is enclosed. has already been filed in this application.  $\boxtimes$ A check in the amount of the fee is enclosed. The Commissioner has already been authorized to charge fees in this application to a Deposit Account. X The Commissioner is hereby authorized to charge any fees which may be required, or credit any overpayment, to Deposit Account Number <u>15-0660</u>. I have enclosed a duplicate copy of this sheet. I am the assignee of record of the entire interest. applicant. attorney or agent of record. attorney or agent under 37 CFR 1.34(a). Registration number if acting under 37 CFR 1.34(a) Smith, Reg. No Typed or printed name Jeffry W.

M

PTO/SB/22 (12-97)

Approved for use through 9/30/00. OMB 0651-0031

Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

PETITION FOR EXTENSION OF TIME UNDER 1995

PETITI	ON FOR EXTENSION OF T	IME UNDER 37 CFR 1.136(a)	Docket Number (Optional) EPIXINC-4
1	SIPE	In re Application of Nathan Pyles	
	AY 1 0 1999 2	Application Number 09/181,738	Filed October 28, 1998
\ \ \	& TRADEMINIST	For PEDOMETER	
		Group Art Unit 2816	Examiner
The red	bove identified application. uested extension and appro	ns of 37 CFR 1.136(a) to extend  priate non-small-entity fee are a	
	Two months (37 CFR 1.17	- 14.	\$
	Three months (37 CFR 1.1	W47-94-95-0-7-7-1	\$870.00
	Four months (37 CFR 1.17	_200_000, 200	\$
	Five months (37 CFR 1.17	(a)(5))	\$
		under 37 CFR 1.9 and 1.27, the alf, and the resulting fee ls: \$ <u>43</u>	
	⊠ is enclosed.	1114	
	has already been filed	In this application.	
$\boxtimes$	A check in the amount of the	5 gr 200 100 200 sc	
	The Commissioner has alr	eady been authorized to charge	fees in this application to a
	Deposit Account.		- 1
×	The Commissioner is here credit any overpayment, to duplicate copy of this shee	by authorized to charge any fee: Deposit Account Number <u>15-0</u> t.	s which may be required, or 0660. I have enclosed a
I am th	assignee of record	d of the entire interest.	
	applicant.		
	attorney or agent	The state of the s	
- N		under 37 CFR 1.34(a).	No.
	Registrat	tion number if acting under 37 C	FR 1.34(a)
May	, 4, 1999 C	Juffy W. Sith	
	Jeffr	y W. Smith, Req. N Typed or printed name	10. 33455

number.	*****	1	of information unless it displays a valid OMB co
TRANSMITTAL		Application Number Filing Date	09/181,738
		First Named Inventor	October 28, 1998
5	FORM To be used for all correspondence after initial filing)		Nathan Pyles 2816
9 هزاته be used for all correspondence a	e used for all correspondence after initial filing)		2010
otal Number of Pages in This Submission	on .	Examiner Name Attorney Docket Number	EPIXINC-4
		<u> </u>	
Fee Transmittal Form	Assignment (For an App	[1] - [1] -	After Allowance Communication To
Fee Attached	Drawing(s)		Appeal Communication to Board C
Amendment / Response	Licensing-	related Papers	Appeal Communication to Group
After Final		uting Silp (PTO/SB/69) npanylng Petitlon	(Appeal Notice, Brief, Reply Brief)  Proprietary Information
Affidavlts/declaration(s)	☐ <sub>To Convert</sub>	a Provisional Application	Status Letter
Extension of Time Request		ttorney, Revocation	Additional Enclosure(s)
Express Abandonment Request	Terminal D		(Please identify below):
П	Small Entity	y Statement	
information Disclosure Statement	Request fo	r Refund	
Certified Copy of Priority Document(s)		*	
Response to Missing Parts/ Incomplete Application	Remarks		
Response to Missing Parts Under 37 CFR 1.52 or 1.53		ž	•
Firm Jef:		ith, Reg. No.	
Individual name Signature	Fyw. S	~H	S .
Date Mu	74,1999		
		ICATE OF MAILING with the United States Postal	

PTO/SB/17 (12-97)

Approved for use through 09/30/00. OMB 0651-0032
Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. Complete if Known **FEE TRANSMITTAL** Application Number 09/181,738 Filing Date October 28, 1998 First Named Inventor Nathan Pyles MAY 1 0 1999 Payfiote: Effective October 1, 1997, Payfit fees are subject to annual revision PAYMENT \$500.00 Group Art Unit 2816 Examiner Name EPIXINC-4 Attorney Docket Number METHOD OF PAYMENT (check one) FEE CALCULATION (Continued) The Commissioner is hereby authorized to charge indicated fees and credit any over payments to: 3. ADDITIONAL FEES Large Entity Small Entity Deposit Account Number 15-0660 Fee Code (\$) Code (\$) 105 130 205 Surcharge - late filing fee or oath \$65.00 Lathrop & Clark Surcharge - late provisional filing fee or cover sheet 127 50 227 25 Charge Any Additional Fee Required Under 37 CFR 1.16 and 1.17 Charge the Issue Fee Set In 37 CFR 1.18 at the Mailing of the Notice of Allowance 139 130 139 130 Non-English specification For filing a request for reexamination 147 2,520 147 2,520 Requesting publication of SIR prior to Examiner action 112 920\* 112 920\* Payment Enclosed: ⊠<sup>Check</sup> Requesting publication of SIR after Examiner action ☐ Money Order 113 1,840\* 113 1,840\* FEE CALCULATION 115 110 215 55 Extension for reply within first 1. FILING FEE 380 216 190 Extension for reply within second 116 \$435.00 Large Entity Small Entity 117 870 217 435 Extension for reply within third Extension for reply within fourth month Fee Description Fee Paid 118 1,360 218 680 Extension for reply within fifth month 128 1850 228 925 Utility filing fee Notice of Appeal 101 760 201 380 119 300 219 150 Filing a brief in support of an appeal 310 206 155 Design filing fee 120 300 220 150 107 480 207 240 121 260 221 130 Plant filing fee Request for oral hearing Petition to institute a public use proceeding Reissue filing fee 208 380 138 1,510 1,510 Provisional filing fee 110 55 Petition to revive - unavoidable SUBTOTAL (1) 1,210 141 605 Petition to revive - unintentional 2. CLAIMS Fee Paid 1,210 Fee from 142 242 605 Utility issue fee (or reissue) below To \$0.00 215 **Total Claims** -20= 11 43 430 243 Design Issue fee X Independent Claims -3= 0 41 \$0.00 144 580 244 290 Plant Issue fee Petitions to the Commissioner 122 130 122 130 135 \$0.00 Multiple Dependent Claims Petitions related to provisional 123 50 123 50 applications Submission of Information Disclosure Statement 126 240 126 240 Large Entity Small Entity Recording each patent assignment per property (times number of properties) Fee Description 581 40 581 40 Flling a submission after fina rejection (37 CFR 1.129(a)) 103 18 203 Claims in excess of 20 146 760 246 380 For each additional invention to be examined (37 CFR 1.129(b)) 102 78 202 39 independent Claims in excess of 3 149 760 249 104 260 204 130 Multiple dependent claims Reissue independent claims over 109 209 78 39 Other fee (specify) Relssue claims in excess of 20 and over original patent
SUBTOTAL (2) \$0.00 18 110 210 Other fee (specify) \$500.00 \*Reduced by Basic Filing Fee Paid SUBTOTAL (3) SUBMITTED BY Jeffry W. Smith 33455 Typed or Printed Name Reg. Number Signature Deposit Account User ID May 4, 1999

UNITED STATES DEPARTMENT OF COMMERCE Patent and Trademark Office

Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Weshington, D.C. 20231 FIRST NAMED APPLICANT ATTORNEY DOCKET NO TITLE 10/28/98 09/181.738 - Illissing Parts Due 020455 LATHROP CLARK NOT ASSIGNED 122 W WASHINGTON AVENUE P O BOX 1507 MADISON WI 53701-1507 DATE MAILED: 11/17/98 NOTICE TO FILE MISSING PARTS OF APPLICATION Filing Date Granted An Application Number and Filing Date have been assigned to this application. The items indicated below, however, are missing. Applicant is given TWO MONTHS FROM THE DATE OF THIS NOTICE within which to file all required items and pay fees required below to avoid bandonment. Extensions of time may be obtained by filing a petition accompanied by the extension fee under the provisions of 37 CFR 1.136(a). If any of items 1 or 3 through 5 are indicated as missing, the SURCHARGE set forth in 37 CFR 1.16(e) of ☐ \$65.00 for a small entity in compliance with 37 CFR 1.27, or ☐ \$130.00 for a non-small entity, must also be timely submitted in reply to this NOTICE to avoid abandonment. If all required items on this form are filed within the period set above, the total amount owed by applicant as a 
□ small entity (statement filed) ☑ non-small entity is \$ / . . . . . . . . . . ☐ 1. The statutory basic filing fee is: ☐ missing.
☐ insufficient. Applicant must submit \$\_\_\_such status (37 CFR 1.27). to complete the basic filing fee and/or file a small entity statement claiming □ 2. Additional claim fees of \$. , including any multiple dependent claim fees, are required. independent claims over 3. dependent claims over 20. for multiple dependent claim surcharge.

Applicant must either submit the additional claim fees or cancel additional claims for which fees are due. The oath or declaration: The cath or preciaration:

is missing or unexecuted.

does not icover the newly submitted items.

does not identify the application to which it applies.

does not include the city and state or foreign country of applicant's residence.

An oath or declaration in compliance with 37 CFR 1. 63, including residence information and identifying the application by the above Application-Number and Filling Date is required. 4. The signature(s) to the path or declaration is/are by a person other than inventor or person qualified under 37 CFR 1.42, 1.43 br 1.47. A properly signed oath or declaration in compliance with 37 CFR 1.63, identifying the application by the above Application Number and Filing Date, is required. ☐ 5. The signature of the following joint inventor(s) is missing from the oath or declaration: An oath of declaration in compliance with 37 CFR 1.63 listing the names of all inventors and signed by the omitted inventor(s), identifying this application by the above Application Number and Filing Date, is required.

6. A \$50.00 processing fee is required since your check was returned without payment (37 CFR 1.21(m)). 7. Your filing receipt was mailed in error because your check was returned without payment.
 8. The application does not comply with the Sequence Rules. See attached "Notice to Comply with Sequence Rules 37 CFR 1,821-1.825." Direct the reply and any questions about this notice to "Attention: Box Missing Parts A copy of this notice MUST be returned with the reply. Customer Service Center Initial Patent Examination Division (703) 308-1202 FC:205 PART 2 - COPY TO BE RETURNED WITH RESPONSE FORM PTO-1533 (REV.9 97)

#### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:

Pyles, et al.

Date:

February 16, 1999

Filed:

October 28, 1998

Docket No.: EPIXINC-4

Application No.: 09/181,738

Art Unit:

2816

For:

**PEDOMETER** 

#### Certificate of Mailing

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231

Signature

Smith, Reg. No. 33455

Name of applicant, assignee or Registered Representative

#### INFORMATION DISCLOSURE STATEMENT

RECEIVED FEB 2 2 1999

GROUP 2100

Dear Sir:

Assistant Commissioner for Patents

Washington, D.C. 20231

In accordance with 37 C.F.R. §1.56, applicant wishes to call the attention of the Examiner to the following documents:

#### **United States Patents**

	and the same of th	
U.S. Patent No.	Issue Date	<u>Patentee</u>
4,053,755	10-11-1977	Sherrill
4,223,211	09-16-1980	Allsen et al.
4,334,190	06-08-1982	Sochaczevski
4,337,529	06-29-1982	Morokawa
4,371,945	02-01-1983	Karr et al.
4,510,704	04-16-1985	Johnson
4,651,446	03-24-1987	Yukawa et al.
4,741,001	04-26-1988	Ma
4,771,394	09-13-1988	Cavanagh
4,855,942	08-08-1989	Bianco
5,117,444	05-26-1992	Sutton et al.
5,475,725	12-12-1995	Nakamura
5,476,427	12-19-1995	Fujima
5,490,816	02-13-1996	Sakumoto
5,516,334	05-14-1996	Easton
5,526,290	06-11-1996	Kanzaki

Copies of these documents are submitted herewith along with Form PTO-SB/08A.

Applicant respectfully requests that these documents be expressly considered during the prosecution of this application and made of record herein and appear among the "documents cited" on any patent to issue herefrom.

Respectfully submitted,

Jeffry W. Smith, Reg. No. 33455

Attorney for Applicant Lathrop & Clark LLP

740 Regent Street, Suite 400

P. O. Box 1507

Madison, Wisconsin 53701 (608) 257-7766

RECEIVED

FEB 2 2 1999

GROUP 2100

ids.app

PTO/SB/08A (10-96) oved for use through 10/31/99. OMB 0651-0031

bved for use through 10/31/99. OMB 0651-0031 Please type a plus sign (+) inside this box  $\rightarrow$  fbPatent and Trademark Office: U.S. DEPARTMENT OF COMMERCE Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control plumb Application Number Substitute for form 1449A/PTO 09/181.738 October 28, 1998 INFORMATION DISCLOSURE First Named Inventor Nathan Pyles STATEMENT BY APPLICANT Group Art Unit (Use as many sheets as necessary) **Examiner Name** Wambach Attorney Docket Number Sheet Of **EPIXINC-4** U.S. PATENT DOCUMENTS Cite No.1 Name of Patentee or Applicant of Cited Date of Publication of Pages, Columns, Lines, Where Relevant Passages or Relevant Examiner U.S. Patent Document Cited Document Document Figures Appear MM-DD-YYYY (If known) MRW 10-11-1977 4,053,755 Sherrill 4,223,211 Alisen et al. 09-16-1980 06-08-1982 4,337,529 Morokawa 06-29-1982 4,371,945 Karr et al. 02-01-1983 Johnson 4,510,704 04-16-1985 4,651,446 Yukawa et al 03-24-1987 4,741,001 Ma 04-26-1988 Cavanagh 4,771,394 09-13-1988 Bianco 08-08-1989 4,855,942 Sutton et al. 5,117,444 05-26-1992 ساوال Nakamura mu 5,476,427 Fujima 12-19-1995 m 02-13-1996 5.490.816 Sakumoto 05-14-1996 5,516,334 Easton Mu FOREIGN PATENT DOCUMENTS Foreign Patent Document Name of Pate Date of Publication of Pages, Columns, Lines, Cite No.1 Where Relevant Passages Examiner Office<sup>3</sup> Number<sup>4</sup> Kind Code5 Applicant of C Cited Document initials\* Document MM-DD-YYYY T<sup>6</sup> (If known) FEB 2.2 1999 1/24/68011P 2100 Mar Considered Signature

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup>Unique citation designation number. <sup>2</sup>See attached Kinds of U.S. Patent Documents. <sup>3</sup>Enter Office that issued the document, by the two-letter code (WIPO Standard St.3). <sup>4</sup>For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup>Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup>Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

	Please type a plus sign (+) Inside ox → B Under the Paperwork Reduction Act of 199 number.	5, no persons are req	Patent and Tra ulred to respond to a collection	irk O	PTO/SB/21 (12-97) of for use through 9/30/00. OMB 0651-0031 ffice: U.S. DEPARTMENT OF COMMERCE nation unless it displays a valid OMB control
Si II	number.		Application Number		09/181,738
IDA	TRANSMITT	AL	Filing Date		October 28, 1998
VOILE,	FORM		First Named Inventor		Nathan Pyles
FEB 1 8 1999	(To be used for all correspondence	after initial filing)	Group Art Unit		2816
3			Examiner Name		121
TRADEMARK	Total Number of Pages in This Submissi	on	Attorney Docket Number		EPIXINC-4 XV
	Fee Transmittal Form Fee Attached Amendment / Response  After Final Affidavits/declaration(s) Extension of Time Request  Express Abandonment Request  information Disciosure Statement	Petition Ro And Accord To Convert Power of A Change of C	related Papers  uting Slip (PTO/SB/69)  npanying Petition  ta Provisional Application  ttorney, Revocation  Correspondence Address  disclaimer		After Allowance Communication To Group  Appeal Communication to Board Of Appeals and Interferences  Appeal Communication to Group (Appeal Notice, Brief, Reply Brief)  Proprietary information  Status Letter  Additional Enciosure(s) (Please Identify below):  PTO-SB08A with 16 references
			fees that may be req	uired weent, to D	y authorized to charge any additional lith respect to this communication, or Deposit Account No. 15-0660.  RECEIVED FEB 2 2 1999
,	Individual name Signature  Date  I hereby certify that this correspondence class mail in an envelope addressed to: A	ffy D S  CERTIF  s being deposited v	// / / / / / / / / / / / / / / / / / /	Service	as first
	this date: Typed or printed name	Jeffry	W. Smith, Reg.	No	. 33455
×	Signature Off	m 6	w. Smith, keg.	Dat	
	(-) (-)	/ -	To Be control of the		· / - / - / - / - / - / - / - / - / - /

PTO/SB/21 (12-97) proved for use through 9/30/00, OMB 0651-0031 k Office: U.S. DEPARTMENT OF COMMERCE aformation unless it displays a valid OMB control 09/181,738 **Application Number** TRANSMITTAL Filing Date October 28, 1998 FEB 1 8 1999 **FORM** First Named Inventor Nathan Pyles Group Art Unit 2816 o be used for all correspondence after initial filing) Examiner Name Total Number of Pages in This Submission **Attorney Docket Number** EPIXINC-4 Fee Transmittal Form Assignment Papers After Allowance Communication To (For an Application) Group Drawing(s) Appeal Communication to Board Of Appeals and Interferences Amendment / Response Appeal Communication to Group (Appeal Notice, Brief, Reply Brief) Petition Routing Silp (PTO/SB/69) And Accompanying Petition Proprietary Information Affidavits/declaration(s) To Convert a Provisional Application Extension of Time Request Power of Attorney, Revocation Additional Enclosure(s) Change of Correspondence Address (Please identify below): Terminal Disclaimer Express Abandonment Request Small Entity Statement PTO-SB08A with 16 references information Disclosure Statement Certified Copy of Priority Document(s) Remarks The Commissioner is hereby authorized to charge any additional fees that may be required with respect to this communication, or credit any overpayment, to Deposit Account No. 15-0660. Response to Missing Parts/ incomplete Application Response to Missing Parts Under 37 CFR 1.52 or 1.53 SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT CITY Jeffry W. Smith, Reg. No. 33455 or Individual name FEB 2 2 1999 Signature POUP 2100 Date CERTIFICATE OF MAILING I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mall in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231 on Typed or printed name Jeffry W. Smith, Reg. No. 33455 Signature Date



#### PATENT APPLICATION

#55H 1-9-00

N THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:

Pyles, et al.

Date:

December 17, 1999

Filed:

October 28, 1998

Docket No.:

EPIXINC-4

Application No.:

09/181,738

Art Unit:

2816

For:

PEDOMETER

Examiner:

#### Certificate of Mailing

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231

Decemi

Date

Signature

Jeffry W. Smith, Reg. No. 33455

Name of applicant, assignee or Registered Representative

RECEIVED

DEC 23 1999

ECHNOLOGY CENTER 2800

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Washington, D.C. 20231

Assistant Commissioner for Patents

Dear Sir:

In accordance with 37 C.F.R. §1.56, Applicants wish to call the attention of the Examiner to the following document:



U.S. Patent No.

5,583,776

Issue Date

12-10-1996

Patentee

Levi et al.

A copy of this document is submitted herewith along with Form PTO/SB08A.

It is believed that no fee is owed for this disclosure under 37 C.F.R. 1.97(b)(3), because Applicants have not received and are not aware of a mailed office action on the merits.

If an action was mailed prior to the filing date hereof, the information disclosed herein is submitted after the mailing of a first office action and before the mailing of a final action. Thus, Applicants note, under 37 C.F.R. §1.97(e)(2), that no item of information disclosed herein was cited by a foreign patent office in a counterpart application, and to the knowledge of the undersigned after making a reasonable inquiry, no item of information contained herein was known to any individual designated in §1.56(c) more than three months prior to the filing of this information disclosure statement. Thus, it is believed no fee is owed for this filing. Nonetheless, if a fee is owed, the Office is hereby authorized to charge Account No. 15-0660. A duplicate copy of this document is enclosed.

Applicants respectfully request that this document be expressly considered during the prosecution of this application and made of record herein and appear among the "documents cited" on any patent to issue herefrom.

Respectfully submitted,

RECEIVED

DEC 23 1999

TECHNOLOGY CENTER 2800

Jeffry W. Smith, Reg. No. 33455

Attorney for Applicant Lathrop & Clark LLP

740 Regent Street, Suite 400

P. O. Box 1507

Madison, Wisconsin 53701

(608) 257-7766

ids2 app



#### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:

Pyles, et al.

Date:

December 17, 1999

Filed:

October 28, 1998

Docket No.:

EPIXINC-4

Application No.:

09/181,738

Art Unit:

2816

For:

**PEDOMETER** 

Examiner:

#### Certificate of Mailing

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231

December 1

Date

Signature

Jeffry W. Smith, Reg. No. 33455

Name of applicant, assignee or Registered Representative

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

RECEIVED

DEC 23 1999

TECHNOLOGY CENTER 2800

Dear Sir:

Assistant Commissioner for Patents

Washington, D.C. 20231

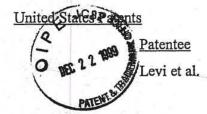
In accordance with 37 C.F.R. §1.56, Applicants wish to call the attention of the Examiner to the following document:

U.S. Patent No.

Issue Date

5,583,776

12-10-1996



A copy of this document is submitted herewith along with Form PTO/SB08A.

It is believed that no fee is owed for this disclosure under 37 C.F.R. 1.97(b)(3), because Applicants have not received and are not aware of a mailed office action on the merits.

If an action was mailed prior to the filing date hereof, the information disclosed herein is submitted after the mailing of a first office action and before the mailing of a final action. Thus, Applicants note, under 37 C.F.R. §1.97(e)(2), that no item of information disclosed herein was cited by a foreign patent office in a counterpart application, and to the knowledge of the undersigned after making a reasonable inquiry, no item of information contained herein was known to any individual designated in §1.56(c) more than three months prior to the filing of this information disclosure statement. Thus, it is believed no fee is owed for this filing. Nonetheless, if a fee is owed, the Office is hereby authorized to charge Account No. 15-0660. A duplicate copy of this document is enclosed.

Applicants respectfully request that this document be expressly considered during the prosecution of this application and made of record herein and appear among the "documents cited" on any patent to issue herefrom.

Respectfully submitted,

RECEIVED

DEC 23 1999

**TECHNOLOGY CENTER 2800** 

Jeffry W. Smith, Reg. No. 33455

Attorney for Applicant Lathrop & Clark LLP

740 Regent Street, Suite 400

P. O. Box 1507

Madison, Wisconsin 53701

(608) 257-7766

ids2.app

Please type a plus sign (+) inside this box → ⊞ Opt 2 2 1000 Plant of 1995, no persons are required prespon number.

PTO/SB/08A (10-96) Approv use through 10/31/99. OMB 0651-0031

Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE aspond to a collection of Information unless it displays a valid OMB control

Substitute for form 1449A/PTO Filing Date October 28, 1998 INFORMATION DISCLOSURE Nathan Pyles First Named Inventor STATEMENT BY APPLICANT Group Art Unit 2816 Margaret (Use as many sheets as necessary) Sheet Attorney Docket Numbe EPIXING U.S. PATENT DOCUMENTS Examiner Initials\* Cite No.1 Name of Patentee or Date of Publication U.S. Patent Document Pages, Columns, Lines, of Cited Document MM-DD-YYYY Applicant of Cited Where Relevant Passages or Kind Code<sup>2</sup> Document Relevant Figures Appear (If known) Man 5,583,776 FOREIGN PATENT DOCUMENTS Foreign Patent Document Date of Publication of Where Relevant Passages Examiner Cite No.1 Applicant of Cited Cited Document Number Kind Code Document MM-DD-YYYY T<sup>6</sup> or Relevant Figures (If known) 00

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Unique citation designation number. ²See attached Kinds of U.S. Patent Documents. ³Enter Office that Issued the document, by the two-letter code (WIPO Standard St.3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. ¹16 if possible. ⁴Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form Is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

PTO/SB/21 (12-97)
for use through 9/30/00. OMB 0651-0031
coffice: U.S. DEPARTMENT OF COMMERCE Please type a plus sign (+) inside this band & Under the Paperwork Reduction Act of 1995, no persons are re Application Number 09/181,738 TRANSMITTAL Filing Date October 28, **FORM** First Named Inventor Nathan Pyles Group Art Unit (To be used for all correspondence after initial filing) 2816 Examiner Name Total Number of Pages in This Submission Attorney Docket Number EPIXINC-4 Fee Transmittal Form Assignment Papers After Allowance Communication (For an Application) Drawing(s) Appeal Communication to Board Licensing-related Papers Appeals and Interferences Petition Routing Slip (PTO/SB/69) Appeal Communication to Group (Appeal Notice, Brief, Reply Brief) And Accompanying Petition Proprietary Information To Convert a Provisional Application Affidavits/declaration(s) Status Letter Power of Attorney, Revocation Extension of Time Request Change of Correspondence Address Additional Enclosure(s) Terminal Disclaimer (Please identify below): Express Abandonment Request Small Entity Statement PTO/SB08A with 1 document information Disciosure Request for Refund RECEIVED DEC 2 3 1999 Certified Copy of Priority TECHNOLOGY CENTER 2800 Document(s) The Commissioner is hereby authorized to charge any additional fees that may be required with respect to this communication, or credit any overpayment, to Deposit Remarks Response to Missing Parts/ Incomplete Application Account No. 15-0660. Response to Missing Parts Under 37 CFR 1.52 or 1.53 SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT Jeffry W. Smith, Reg. No. 33455 or Individual name Signature 1999 CERTIFICATE OF MAILING I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mall in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231 on this date: Typed or printed name Jeffry W. Smith, Reg. No. Signature Date



## UNITED ES DEPARTMENT OF COMMERCE Patent and Trademark Office

ddress: COMMISSIONER OF PATENTS AND TRADEMARKS Washington, D.C. 20231

				<b>3</b> , -1	A A
APPLICATION NO.	FILING DATE	FIRST NAME	D INVENTOR		ATTORNEY DOCKET NO.
09/181.738	10/28/98	PYLES		N	EPIXINC-4
	L MITT	MM42/0128			EXAMINER
LATHROP & CL				WAMBACI	H - M
740 REGENT E		€ 400		ART UNIT	PAPER NUMBER
P.O. BOX 150 MADISON WI 5				2816	):
					01/28/00

Please find below and/or attached an Office communication concerning this application or proceeding.

**Commissioner of Patents and Trademarks** 

PTO-90C (Rev. 2/95)

U.S. G.P.O. 1999 480-893

1- File Copy

	Application No. 09/181,738	Applicant(s	Pyles	
Office Action Summary	Examiner Margaret Wa	mbach	Group Art Unit 2816	
Responsive to communication(s) filed on		· .		•
☐ This action is FINAL.				14
Since this application is in condition for allowance in accordance with the practice under Ex parte Que			ion as to the me	rits is closed
A shortened statutory period for response to this actions longer, from the mailing date of this communication application to become abandoned. (35 U.S.C. § 133) 37 CFR 1.136(a).	. Failure to respond wit	hin the perio	od for response v	will cause the
Disposition of Claims				
		is/are	pending in the a	application.
Of the above, claim(s)		is/are v	vithdrawn from (	consideration.
☐ Claim(s)			is/are allowed.	
			is/are rejected.	
Claim(s)				o.
☐ Claims	are subje	ect to restric	tion or election r	equirement.
Application Papers  See the attached Notice of Draftsperson's Pater  The drawing(s) filed on is/  The proposed drawing correction, filed on	nt Drawing Review, PTO are objected to by the E	-948. xaminer.	⊡disapproved.	
Application Papers  See the attached Notice of Draftsperson's Pater  The drawing(s) filed on is/  The proposed drawing correction, filed on  The specification is objected to by the Examiner	nt Drawing Review, PTO are objected to by the E is a	-948. xaminer.		
Application Papers  See the attached Notice of Draftsperson's Pater  The drawing(s) filed on is/  The proposed drawing correction, filed on  The specification is objected to by the Examiner  The oath or declaration is objected to by the Exercipity under 35 U.S.C. § 119	nt Drawing Review, PTO are objected to by the E is aminer.	-948. xaminer. pproved [	⊡disapproved.	
Application Papers  See the attached Notice of Draftsperson's Pater  The drawing(s) filed on is/  The proposed drawing correction, filed on  The specification is objected to by the Examiner  The oath or declaration is objected to by the Exercity under 35 U.S.C. § 119  Acknowledgement is made of a claim for foreig	nt Drawing Review, PTO are objected to by the E is some aminer.	-948. xaminer. pproved [	⊟disapproved.	
Application Papers  See the attached Notice of Draftsperson's Pater The drawing(s) filed on	nt Drawing Review, PTO are objected to by the E is some aminer.	-948. xaminer. pproved [	⊟disapproved.	
Application Papers  See the attached Notice of Draftsperson's Pater  The drawing(s) filed on is/  The proposed drawing correction, filed on  The specification is objected to by the Examiner  The oath or declaration is objected to by the Exercity under 35 U.S.C. § 119  Acknowledgement is made of a claim for foreig	nt Drawing Review, PTO are objected to by the E is some is some is aminer.  In priority under 35 U.S. ocopies of the priority definition is some interest.	-948. xaminer. pproved [	⊟disapproved.	
Application Papers  See the attached Notice of Draftsperson's Pater The drawing(s) filed on is/ The proposed drawing correction, filed on The specification is objected to by the Examiner The oath or declaration is objected to by the Examiner The oath or declaration is objected to by the Examiner Acknowledgement is made of a claim for foreig All Some* None of the CERTIFIED	nt Drawing Review, PTO are objected to by the E is	-948.  xaminer.  pproved (  C. § 119(a)-  cuments ha	□disapproved.  (d).  ave been	
Application Papers  See the attached Notice of Draftsperson's Pater The drawing(s) filed on	nt Drawing Review, PTO are objected to by the E is	-948.  xaminer.  pproved (  C. § 119(a)-  cuments ha	□disapproved.  (d).  ave been	
Application Papers  See the attached Notice of Draftsperson's Pater The drawing(s) filed on	nt Drawing Review, PTO are objected to by the E is is aminer.  In priority under 35 U.S. copies of the priority description of the priority description of the International B	-948.  xaminer.  pproved [  C. § 119(a)-  cuments ha	□disapproved.  (d).  ave been  .  Rule 17.2(a)).	
Application Papers  See the attached Notice of Draftsperson's Pater The drawing(s) filed on	nt Drawing Review, PTO are objected to by the E is is aminer.  In priority under 35 U.S. copies of the priority description of the priority description of the International B	-948.  xaminer.  pproved [  C. § 119(a)-  cuments ha	□disapproved.  (d).  ave been  .  Rule 17.2(a)).	
Application Papers  See the attached Notice of Draftsperson's Pater The drawing(s) filed on	nt Drawing Review, PTO are objected to by the E is is aminer.  In priority under 35 U.S. copies of the priority description of the priority description of the International B	-948.  xaminer.  pproved [  C. § 119(a)-  cuments ha	□disapproved.  (d).  ave been  .  Rule 17.2(a)).	
Application Papers  See the attached Notice of Draftsperson's Pater The drawing(s) filed on	are objected to by the E is is is aminer.  In priority under 35 U.S. Copies of the priority description of the International B stic priority under 35 U.S.	-948.  xaminer.  pproved [  C. § 119(a)-  cuments ha	□disapproved.  (d).  ave been  .  Rule 17.2(a)).	
Application Papers  See the attached Notice of Draftsperson's Pater The drawing(s) filed on	are objected to by the E is is is aminer.  In priority under 35 U.S. Copies of the priority description of the International Bestic priority under 35 U.S. Copies of the priority description of the International Bestic priority under 35 U.S. Copies of the priority description of the International Bestic priority under 35 U.S. Copies of the priority description of the International Bestic priority under 35 U.S. Copies of the priority description of the International Bestic priority under 35 U.S. Copies of the priority under 35 U.S. Copies of the International Bestic priority under 35 U.S. Copies of the International Bestic priority under 35 U.S. Copies of the International Bestic priority under 35 U.S.	-948.  xaminer.  pproved [  C. § 119(a)-  cuments ha	□disapproved.  (d).  ave been  .  Rule 17.2(a)).	
Application Papers  See the attached Notice of Draftsperson's Pater The drawing(s) filed on	are objected to by the E is is is aminer.  In priority under 35 U.S. Copies of the priority description of the International B stic priority under 35 U.S. Paper No(s)	-948.  xaminer.  pproved [  C. § 119(a)-  cuments ha	□disapproved.  (d).  ave been  .  Rule 17.2(a)).	
Application Papers  See the attached Notice of Draftsperson's Pater The drawing(s) filed on	are objected to by the E is is is aminer.  In priority under 35 U.S. Copies of the priority description of the International B stic priority under 35 U.S. Paper No(s)	-948.  xaminer.  pproved [  C. § 119(a)-  cuments ha	□disapproved.  (d).  ave been  .  Rule 17.2(a)).	
Application Papers  See the attached Notice of Draftsperson's Pater The drawing(s) filed on	are objected to by the E is is is aminer.  In priority under 35 U.S. Copies of the priority description of the International B stic priority under 35 U.S. Paper No(s)	-948.  xaminer.  pproved [  C. § 119(a)-  cuments ha	□disapproved.  (d).  ave been  .  Rule 17.2(a)).	
Application Papers  See the attached Notice of Draftsperson's Pater The drawing(s) filed on	are objected to by the E is is is aminer.  In priority under 35 U.S. Copies of the priority description of the International B stic priority under 35 U.S. Paper No(s)	-948.  xaminer.  pproved [  C. § 119(a)-  cuments ha	□disapproved.  (d).  ave been  .  Rule 17.2(a)).	

Application/Control Number: 09/181738 Page 2

Art Unit: 2816

#### DETAILED ACTION

#### Claim Rejections - 35 USC § 112

- 1. The following is a quotation of the second paragraph of 35 U.S.C. 112:
  - The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
- 2. Claims 1-45 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claims are replete with terms which lack a clear antecedent basis. Numerous instances of this problem will be specifically pointed out; however, applicant is required to proofread and correct all instances.

In claims 4, 20"the transmission signal", in claim 7, 23 "the step count signal", in claims 10, 26, "the heart rate signal" and "the pedometer signal", in claims 12, 28, "the heart rate" and "the step counter", in claim 17, "the number of strides" and "the rate", claim 32, "the total number of strides", "the stride count" and "the first run time", claim 35, "the receiver", "the step count signal" and "the distance", claim 37, "the total number of strides", "the first run distance", "the stride count" "the first run stride count", "the first run time" and "the First Run Stride Rate" (all of the problems of claim 37 are repeated with regard to the second - fourth run), and claim 44, "the user first run", "the first run time" and "the stride count" lack a clear antecedent basis.

TomTom Exhibit 1010, Page 61 of 128

Application/Control Number: 09/181738

Page 3

Art Unit: 2816

Also in claim 12, applicant's intended meaning cannot be discerned from the references of "the heart rate" which is located in a housing.

#### Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

- (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
- 4. Claims 1, 3, 4, 6, 7, 9, 10 and 11 are rejected under 35 U.S.C. 102(a) as being anticipated by Sham et al..

Sham teaches a pedometer including a step counter (32), a transmitter (the wiring between 32 and 34) which transmits a digitally coded step signal, and a receiver (30), referring to Figure 3. It is inherent that the receiver is "mountable" to a second body portion insofar as the term itself only means that it is possible to mount the receiver elsewhere. Secondly, the term "body portion" is so broad that the limitation is met merely by having the receiver and transmitter at different locations within the same housing (therefor affixed to different body portions.)

Moreover, Sham discloses a wrist watch arrangement on column 3, lines 43-45 as recited in claim 6. Sham discloses a processor and viewing screen (34 and 18) as recited in claim 7. As recited in claim 9, a heart rate monitor and a second transmitter (10 and 31) are also taught.

Insofar as the heart rate signal is a wireless signal and the pedometer signal, assuming applicant

Page 4

Application/Control Number: 09/181738

Art Unit: 2816

means the signal from the step counter, is from a wire, these signals would inherently be of different frequencies, as recited in claim 10. The heart rate monitor is mounted to the user's chest and thus, claim 11 is also met.

#### Claim Rejections - 35 USC § 103

- 5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 6. Claims 2 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sham et al..

The difference between Sham and claims 2 and 8 lies in the substitution of a wireless transmitter for a wire and a leg band for an arm or waist band. The first difference is not of patentable merit because the use of wireless transmitters is widespread in the art. Insofar as Sham does in fact employ a wireless transmitter for the heart monitor, and Sham would have the motivation of reducing the weight of box 14 by locating the step counter at a remote location, the motivation exists to employ that a wireless transmitter for the step counter. In terms of the leg band, it is merely commonsensical that anything which could be strapped to an arm or waist could also be strapped to a leg. In fact, Sham clearly wishes to leave the designer the latitude to make

Application/Control Number: 09/181738

Page 5

Art Unit: 2816

such decisions because of the statement on column 3, line 44 that the device could be secured "in other ways."

#### Allowable Subject Matter

- 7. Claims 5, 12-16, 18-31, 33-36, 38-43 and 45 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2<sup>nd</sup> paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.
- 8. Claims 17, 32, 37 and 44 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2<sup>nd</sup> paragraph, set forth in this Office action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Wambach whose telephone number is (703) 308-4875. The examiner can normally be reached on Monday-Thursday from 6:30 to 5p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tim Callahan, can be reached on (703) 308-4876. The fax phone number for this Group is (703) 308-7722.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0956.

Margartha Warren

Margaret R. Wambach Primary Examiner

		e	V.	these of the	The state of the s	en sagare		
					10-15-			
1	Notice of Refere	ences Cite		oplication No. 09/181,738 aminer	Applica	Pyle		4
				Margaret \	Vambach	2816		age 1 of 1
			U.S. PATE	NT DOCUMENTS				1713
	DOCUMENT NO.	DATE			AME		CLASS	SUBCLASS
Α -	5,891,042	4/6/99		Shan	et al.	1	600	- 483
В								
Ċ								
D						1, 1,		
E		17 6						
F		10-4						
3			2.	4		/	-(1	•;
1				7111				
١٠,						-		
					1			
			14	,	/	3.		
	Marie A Company	12		/	5.3	V		
				-				
L.			EOREIGN PA	TENT DOCUMEN	TS		L I	
_	DOCUMENT NO.		T	/			CLASS	
-	DOCUMENT NO.	DATE	COUNT	7	NAME		CLASS	SUBCLASS
			-			*** * *:		
. 1					- 120-10	<u></u>		
-				- E1				
							1 1	
					- 9			
					,			
i i								
	v	41						
	V		NON-PATE	NT DOCUMENTS	18			
P Q R		DOCUMENT (Inc		NT DOCUMENTS				DATE
P C C C C C C C C C C C C C C C C C C C		DOCUMENT (Incl						DATE
n a a a a a a a a a a a a a a a a a a a		DOCUMENT (Incl						DATE
		DOCUMENT (Incl						DATE
P R S T		DOCUMENT (Incl						DATE
O P P QQ RR R SS T T V V V V V V V V V V V V V V V V		DOCUMENT (Incl						DATE

Form PTO 948 (Rev. 8-98)

U.S. DEPARTMENT OF COMMERCE - Patent and Trademark Office

Application No. 9 481238

# NOTICE OF DRAFTSPERSON'S PATENT DRAWING REVIEW

	B. objected to by the Draftsperson under 37 CFR 1.84 or 1.152 for the reas submission of new, corrected drawings when necessary. Corrected drawing must	t be sumitted according to the instructions on the back of this notice.
1.	Color drawings are not acceptable until petiton is granted.	ARRANGEMENT OF VIEWS. 37 CFR 1.84(i)  Words do not appear on a horizontal, left-to-right fashion when page is either upright or turned so that the top
2.	PHOTOGRAPHS. 37 CFR 1.84 (b)  1 full-tone set is required. Fig(s)  Photographs not properly mounted (must use brystol board or	becomes the right side, except for graphs. Fig(s)  . SCALE. 37 CFR 1.84(k)  Scale not large enough to show mechanism without crowding when drawing is reduced in size to two-thirds in reproduction.
3.	photographic double-weight paper). Fig(s)	Fig(s): CHARACTER OF LINES, NUMBERS, & LETTERS. 37 CPR 1.84(i)
	Fig(s)  Erasures, alterations, overwritings, interlineations, folds, copy machine marks not accepted. Fig(s)	Lines, numbers & letters not uniformly thick and well defined, clean, durable, and black (poor line quality).  Fig(s)  SHADING. 37 CFR 1.84(m)
4.	Mylar, velum paper is not acceptable (too thin). Fig(s)  SIZE OF PAPER. 37 CFR 1.84(f): Acceptable sizes:21.0 cm by 29.7 cm (DIN size A4)	Solid black areas pale. Fig(s)  Solid black shading not permitted. Fig(s)  Shade lines, pale, rough and blurred. Fig(s)  NUMBERS, LETTERS, & REFERENCE CHARACTERS.
	21.6 cm by 27.9 cm (8 1/2 x 11 inches)All drawing sheets not the same size. Sheet(s)Drawings sheets not an acceptable size. Fig(s)	Fig(s) Figure legends are poor. Fig(s)
5.	MARGINS. 37 CFR 1.84(g): Acceptable margins:  Top 2.5 cm Left 2.5cm Right 1.5 cm Bottom 1.0 cm  SIZE: A4 Size	Fig(s) English alphabet not used. 37 CFR 1.84(p)(2)
	Top 2.5 cm Left 2.5 cm Right 1.5 cm Bottom 1.0 cm 4 was a ring of believes	FigsNumbers, letters and reference characters must be at least32 cm (1/8 inch) in height. 37 CFR 1.84(p)(3)
j.	Right (R) Bottom (B) 13 VIEWS. 37 CFR 1.84(h) REMINDER: Specification may require revision to	LEAD LINES. 37 CFR 1.84(q)  Lead lines cross each other. Fig(s)  Lead lines missing. Fig(s)  NUMBERING OF SHEETS OF DRAWINGS. 37 CFR 1.84(t)
	Partial views. 37 CFR 1.84(h)(2)  Brackets needed to show figure as one entity.	Sheets not numbered consecutively, and in Arabic numerals beginning with number 1. Sheet(s)  NUMBERING OF VIEWS. 37 CFR 1.84(u)  Views not numbered consecutively, and in Arabic numerals,
,	Fig(s)	beginning with number 1. Fig(s) CORRECTIONS. 37 CFR 1.84(w) Corrections not made from prior PTO-948 dated
	Hatching not indicated for sectional portions of an object.  Fig(s) Sectional designation should be noted with Arabic or	DESIGN DRAWINGS. 37 CFR 1.152 Surface shading shown not appropriate. Fig(s) Solid black shading not used for color contrast.
	Roman numbers. Fig(s)	Fig(s)
c	COMMENTS	
		8 8 8
R	eviewer WD DATE 5/25	99 TELEPHONE NO. 1033058404
A	TTACHMENT TO PAPER NO6	
6	The state of the s	

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:

Pyles et a

Filed:

Application No.:

PEDOMETER

For:

Date:

March 15, 2000

Docket No.:

**EPIXINC-4** 

Art Unit:

2816

Examiner:

M. Wambach

### Certificate of Mailing

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231

Date

Signature Jeffry W. Smith, Reg. No. 33455

Name of applicant, assignee or Registered Representative

### SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Assistant Commissioner for Patents Washington, D.C. 20231

Dear Sir:

In accordance with 37 C.F.R. §1.56, applicant wishes to call the attention of the Examiner to the following documents:

#### Other Documents

SPORTSLINE PRODUCTS, "Fitness Pedometer 360", web page, 1pg.
SPORTSLINE PRODUCTS, Fitness Pedometer 360 packaging labels, 5 pgs.

Copies of these documents are submitted herewith along with Form PTO/SB08B.

Applicant respectfully requests that these documents be expressly considered during the prosecution of this application and made of record herein and appear among the "documents cited" on any patent to issue herefrom.

This disclosure is being made pursuant to 37 C.F.R. §1.97(c)(2) and is accompanied by the fee set forth in 37 C.F.R. §1.17(p). If this fee is deficient in any manner, please charge Account No. 15-0660. A duplicate of this paper is filed herewith.

Respectfully submitted,

Jeffry W. Smith, Reg. No. 33455

Attorney for Applicant Lathrop & Clark LLP

740 Regent Street, Suite 400

P. O. Box 1507

Madison, Wisconsin 53701

(608) 257-7766

ids3.app

#### PATENT APPLICATION

#### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:

Pyles et al.

JC3-Date:

March 15, 2000

Filed:

October 28, 19

Decket No.:

**EPIXINC-4** 

Application No.:

09/181,738

Art Unit:

2816

For:

PEDOMETER

Examiner:

M. Wambach

#### Certificate of Mailing

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231

mach 15,20

Date

V Signature

Jeffry W. Smith, Reg. No. 33455

Name of applicant, assignee or Registered Representative

#### SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Assistant Commissioner for Patents Washington, D.C. 20231

Dear Sir:

In accordance with 37 C.F.R. §1.56, applicant wishes to call the attention of the Examiner to the following documents:

#### Other Documents

SPORTSLINE PRODUCTS, "Fitness Pedometer 360", web page, 1pg. SPORTSLINE PRODUCTS, Fitness Pedometer 360 packaging labels, 5 pgs.

Copies of these documents are submitted herewith along with Form PTO/SB08B.

Applicant respectfully requests that these documents be expressly considered during the prosecution of this application and made of record herein and appear among the "documents cited" on any patent to issue herefrom.

This disclosure is being made pursuant to 37 C.F.R. §1.97(c)(2) and is accompanied by the fee set forth in 37 C.F.R. §1.17(p). If this fee is deficient in any manner, please charge Account No. 15-0660. A duplicate of this paper is filed herewith.

Respectfully submitted,

Jeffry W. Smith, Reg. No. 33455

Attorney for Applicant

Lathrop & Clark LLP 740 Regent Street, Suite 400

P. O. Box 1507

Madison, Wisconsin 53701

(608) 257-7766

ds3.app

PTO/SB/08B (10-96) Appr for use through 10/31/99. OMB 0651-0031

Please type a plus sign (+) inside this box  $\rightarrow \boxplus$ 

Patent and Trademark effice: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Substitute for form 1449B/PTO				Application Number	09/181,738
INFORMATION DISCLOSURE			OL OCUPE	Filing Date	October 28, 1998
				First Named Inventor	Nathan Pyles
SIA	STATEMENT BY APPLICANT			Group Art Unit	2816
*	(Use as many	sheets as n	ecessary)	Examiner Name M. Wambach	
Sheet	1	Of	1	Attorney Docket Number	EPIXINC-4

		OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS								
Examiner Initials*	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.								
Meson		SPORTSLINE PRODUCTS, "Filness Pedometer 360", web page, 1 pg.								
MAN		SPORTSLINE PRODUCTS, Fitness Pedometer 360 packaging labels, 5 pgs								
		STPE VCB								
		MAR 2 1 2000								
	~	ATENT & TRANSPAR								
			,							
Examiner Signature	T	Wambach Date Considered 6/20/00								

<sup>\*</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

<sup>&</sup>lt;sup>1</sup>Unique citation designation number. <sup>2</sup>Applicant is to place a check mark here if English language translation is attached

, , , ,			PTO/SB/21 (12-97)	
Please type a plus sign (+) inside this box → ⊞ Under the Paperwork Red	uction Act of 1995, no pe	Pate ersons are required to respond to a	ent and Trad Office: U.S. DEPARTMENT OF COMMERCE collection of 1	
		Application Number	09/181,738	
TRANSMITTA	$\mathbf{L}$	Filing Date October 28, 1998		
		First Named Inventor	Nathan Pyles	
FORM		Group Art Unit	2816	
(To be used for all correspondence after	initial filing)	Examiner Name	M. Wambach	
Total Number of Pages in This Submission	1	Attorney Pocher Number	GEP(XINC-4	
Fee Transmittal Form  Fee Attached  Amendment / Response  After Final  Affidavits/declaration(s)  Extension of Time Request	And Accomp	Payers ication) MAR 2 1 2000 ication at TRANSMA	After Allowance Communication To	
Information Disclosure Statement  Certified Copy of Priority  Document(s)	Small Entity		PTO/SB 08b with 2 documents	
Response to Missing Parts/ Incomplete Application Response to Missing Parts Under 37 CFR 1.52 or 1.53	Remarks			
		PPLICANT, ATTORNEY, OR	AGENT	
	W. Smith Re	g. No. 33455		
Signature	An War	#L	9	
Date	nch 15, 200	2		
17:35		TIFICATE OF MAILING		
1 hereby certify that this correspondence is being deposite Assistant Commissioner for Patents, Washington, D.C. 2	ed with the United States		an envelope addressed to:	
Typed or printed name	Jeffry W	mith, Reg. No. 3345	5	
Simohus	1 1 1	1	The second secon	
Signature	mw. s	mill	Date March 15, 2000	

PTO/SB/17 (12-97) Approved for use through 09/30/00. OMB 0651-0032
Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE respond to a collection of information unless it displays a valid OMB control Under the Paperwork Reduction Act of 1995, no persons are required to Complete If Known MAR 21 2000 FEE TRANSMITTAL 09/181,738 Application Number Forg Date October 28, 1998 st Named Inventor Nathan Pyles Note: Effective October 1, 1997,
Patent fees are subject to annual revision
TOTAL AMOUNT OF PAYMENT \$240.00 Group Art Unit 2816 M. Wambach Examiner Name EPIXINC-4 Attorney Docket Number METHOD OF PAYMENT (check one) FEE CALCULATION (Continued) The Commissioner is hereby authorized to charge indicated fees and credit any over payments to: ADDITIONAL FEES Large Entity Deposit Account Number Small Entity 15-0660 Fee Description Fee Paid (\$) 105 130 205 Surcharge - late filing fee or oath 65 Deposit Account Name Lathrop & Clark Surcharge - late provisional filing fee or cover sheet 127 50 227 25 Charge Any Additional Fee Required Under 37 CFR 1.16 and Charge the Issue Fee Set in 37 CFR 1.18 at the Mailing of the Notice of Allowance 139 130 130 Non-English specification 2,520 147 2,520 For filing a request for reexamination Requesting publication of SIR prior to Examiner action 112 920\* 112 920\* Payment Enclosed: ⊠<sup>Check</sup> 113 1,840\* FEE CALCULATION 115 110 215 55 Extension for reply within first month 1. FILING FEE Extension for reply within second 190 116 380 216 Large Entity Small Entity 117 870 217 435 Extension for reply within third month Fee Paid Fee Fee Description 118 1.360 218 680 Extension for reply within fourth 128 1850 228 925 Extension for reply within fifth month 101 690 201 345 Utility filing fee 119 300 219 150 Notice of Appeal 106 310 206 155 Design filing fee 120 300 220 150 Filing a brief in support of an appeal 107 480 207 240 Plant filing fee 121 260 221 130 Request for oral hearing Petition to Institute a public use proceeding 108 760 208 380 Reissue filing fee 138 1,510 138 1,510 Provisional filing fee 150 140 110 55 SUBTOTAL (1) 1,210 605 241 Petition to revive - unintentional Fee from below 2. CLAIMS Extra Fee Paid 142 1,210 242 605 Utility Issue fee (or reissue) Total Claims -20= X 11 \$0.00 143 430 243 215 Design issue fee Independent Claims -3= O X 41 \$0.00 144 580 290 Plant issue fee 122 130 122 130 Petitions to the Commissioner Petitions related to provisional applications Multiple Dependent Claims 135 \$0.00 123 50 50 123 \$240.00 Large Entity Small Entity Fee Description 40 Recording each patent assignment Fee Code 581 40 581 per property (times number of properties) Filing a submission after final rejection (37 CFR 1.129(a)) 103 18 203 9 Claims in excess of 20 146 760 246 380 For each additional invention examined (37 CFR 1.129(b)) 102 78 202 39 Independent Claims in excess of 3 149 760 249 104 204 260 130 Multiple dependent claims 109 78 Reissue independent claims over Other fee (specify) original patent Reissue claims in excess of 20 and over original patent 18 Other fee (specify) SUBTOTAL (2) \$0.00 SUBTOTAL (3) \$240.00 \*Reduced by Basic Filing Fee Paid SUBMITTED BY Complete (if-applicable) Typed or Printed Name Jeffry W. Smith 33455 Reg. Number March 15, 2000 Deposit Account User ID

Pyles et al.

October 28, 1998

Op/181,738

PEDOMETER

MAR

Date: March 15, 2000

Art Unit: 2816

Examiner: M. Wambach

Examiner: M. Wambach

With the United States Postal Service as first class mail in an envelope addressed to: Box Non-Fee Amendment,

In The United States Patent And Trademark Office

04/17/2000 VBROWN2 00000002 150660

01 FC:102

234.00 CH

Applicant:

Date Filed:

App. No.:

For:

09181738

( ) (Signature

Jeffry W. Smith, Reg. No. 33455

Assistant Commissioner for Patents, Washington, D.C. 20231

Name of applicant, assignee or Registered Representative

#### Amendment

BOX NON-FEE AMENDMENT Assistant Commissioner for Patents Washington, D.C. 20231

Dear Sir:

This is in response to a January 28, 2000 Official Action. In view of the following amendments and remarks reconsideration and allowance of the application are requested.

In the Claims

Please cancel claims 1, 2, 3, 4, 7, 8, 9, 10, and 11 without prejudice.

Please amend the following claims as indicated.

5. (Amended.) A pedometer comprising

a step counter mountable on a user first body portion;

03/23/2000 MSHIFERA 00000032 09181738

01 FC:126

240.00 OP

A

Applicant: Pyles et al.

Application No.: 09/181,738

Art Unit: 2816

a transmitter in communication with the step counter to generate a signal corresponding to each step and transmit the signal; and a receiver mountable on a user second body portion to receive the signal transmitted from the transmitter and use the signal to calculate a distance traveled

[The pedometer of claim 1], wherein the transmitter transmits the signal a wireless distance in the range of [thirty] zero to thirty-fix inches.

6. (Amended.) A pedometer comprisi

a step counter mountable on a user first body portion;

a transmitter in communication with the step counter to generate a signal corresponding to each step and transmit the signal; and

a receiver mountable on a user sedond body portion to receive the signal transmitted

from the transmitter and use the signal to calculate a distance traveled

[The pedometer of claim 1], wherein the receiver is mountable on a user's wrist.

2. (Amended.) A pedometer comprising:

a step counter mountable on a user first body portion;

a transmitter in communication with the step counter to generate a signal corresponding to each step and transmit the signal;

a receiver mountable on a user second body portion to receive the signal transmitted from the transmitter and use the signal to calculate a distance traveled;

a heart rate monitor; and

a second transmitter in communication with the heart rate monitor to transmit a signal corresponding to/a heart rate monitored by the heart rate monitor to the receiver and display the calculated heart rate

[The pedometer of claim 9], wherein the heart rate monitor and the [step counter]



Appn. ant: Pyles et al.

Application No.: 09/181,738

Art Unit: 2816

transmitter are mounted in a single chest-mount housing.

13. (Amended.) A pedometer comprising:

a step counter mountable on a user first body portion:

a transmitter in communication with the step counter to generate a signal

corresponding to each step and transmit the signal; and

a receiver mountable on a user second body portion to receive the signal transmitted

from the transmitter and use the signal to calculate a distance traveled

[The pedometer of claim 1], wherein the pedometer includes a data processor programmed to calculate [a] the distance traveled by multiplying the number of strides taken by a stride length that varies according to [the] a rate at which strides are taken.

a3 12

17. (Amended.) A pedometer comprising:

a step counter;

a transmitter in communication with the step counter to generate a <u>step count</u> signal corresponding to each step and transmit the <u>step count</u> signal; and

a receiver mountable on a user ody portion to receive the step count signal

transmitted from the rensmitter and calculate a distance from a number of strides measured by the step counter; and

measured by the sep counter; and

a data processor programmed to calculate a distance traveled by multiplying the number of strides taken by a stride length that varies according to [the] a rate at which

strides are taken.

R

(Amended.) The pedometer of claim 17, wherein the [transmission] step count signal is digitally coded.

3

App... ant: Pyles et al.

Application No.: 09/181,738

Art Unit: 2816



(Amended.) The pedometer of claim 77, [where in] wherein the transmitter transmits the signal a wireless distance in the range of [thirty] zero to thirty-six inches.

(Amended.) The pedometer of claim N, and further comprising:

a heart rate monitor; and

rate;

a second transmitter in communication with the heart rate monitor to transmit a heart rate signal corresponding to a heart rate [calculated] monitored by the heart rate monitor to the receiver and display the calculated heart rate.

(Amended.) The pedometer of claim 25, wherein the heart rate signal is at a different frequency than the [pedometer] step count signal.

90

\$8. (Amended.) The pedometer of claim \$5, wherein the heart rate monitor and the step counter are mounted in a single chest-mount housing.

4

32. (Amended.) A pedometer programmed to calculate an actual stride length of a user by performing the steps of:

timing a user first run of a predetermined distance to obtain a user first run time;

counting [the] a total number of strides in the user first run;

dividing the first run distance by the [stride count] total number of strides to obtain a base stride length;

dividing the stride count by the first run time to obtain a base stride rate; counting strides in a period of time during a user second run to obtain an actual stride

calculating the actual stride length using the formula:

Actual Stride Length = Base Stride Length + Base Stride Length \*(((Actual Stride

4

Application No.: 09/181,738

Art Unit: 2816

(Second

Rate - Base Stride Rate)N)/Base Stride Rate);

where N is in the range of between 1 and 3;

calculates the actual stride length [distance] using a formula that correlates a specific stride length to a specific stride rate.

g R 5. (Amended.) The pedometer of claim 32, wherein the [receiver processes the step count signal and displays] pedometer is further programmed to calculate and display [the] a distance traveled on a viewing screen.

7. (Amended.) A pedometer programmed to calculate an actual stride length of a user by performing the steps of:

a a

timing a user first run of a predetermined <u>first run</u> distance <u>to obtain a first run time</u>; counting [the] <u>a</u> total number of strides in the user first run;

dividing the first run distance by the [stride count] total number of strides in the user first run to obtain a first run [base] stride length and a base stride length;

dividing the first run stride count by the first run time to obtain a first run [base] stride rate and a base stride rate;

timing a user second run of a predetermined second run distance to obtain a second run time;

counting [the] a total number of strides in the user second run;

dividing the second run distance by the <u>total number of strides in the user</u> second run [stride count] to obtain a second [base] <u>run</u> stride length;

dividing the total number of strides in the second run [stride count] by the second run time to obtain a second [base] run stride rate;

timing a user third run of a predetermined third run distance to obtain a third run time; counting [the] a total number of strides in the user third run;

5

Applicant: Pyles et al.

Application No.: 09/181,738

Art Unit: 2816

dividing the third run distance by the total number of strides in the user third run [stride count] to obtain a third [base] run stride length;

dividing the total number of strides in the third run [stride count] by the third run time to obtain a third run [base] stride rate;

counting strides in a period of time during a user fourth run to obtain an actual stride rate; calculating the actual stride length using the formula:

Actual Stride Length = Base Stride Length + Base Stride Length \*(((Actual Stride Rate - Base Stride Rate)N)/Base Stride Rate);

where N is calculated by the formula ((Second Run Stride Length multiplied by First Run Stride Rate) - (First Run Stride Length multiplied by First Run Stride Rate)) / (First Run Stride Length multiplied by (Second Run Stride Rate - First Run Stride Rate)) when the Actual Stride Rate is greater than the First Run Stride Rate, and where N is calculated by the formula ((Third Run Stride Length multiplied by First Run Stride Rate) - (First Run Stride Length multiplied by First Run Stride Rate)) / (First Run Stride Length multiplied by (Third Run Stride Rate - First Run Stride Rate)) when the Actual Stride Rate is less than or equal to the First Run Stride Rate.

(Amended.) A method for calculating an actual stride length comprising the steps

of:

B

timing a first user run of a predetermined distance to obtain a first run time; counting a total number of strides in the [user] first user run to obtain a stride count; dividing the first run time by the stride count to obtain a Base Stride Length; dividing the stride count by the first run time to obtain a Base Stride Rate; counting strides in a pre-determined period during a user second run to obtain an Actual Stride Rate;



App.. ant: Pyles et al.

Application No.: 09/181,738

Art Unit: 2816



calculating the actual stride length using the formula:

Actual Stride Length= Base Stride Length + Base Stride Length \*(((Actual Stride Rate - Base Stride Rate)N)/Base Stride Rate); wherein N is between one and three.

#### Remarks

Claims 1, 2, 3, 4, 7, 8, 9, 10, and 11 were all rejected under 35 U.S.C. §102 or §103. Applicants believe these claims are allowable over the cited art, but have canceled these claims to expedite prosecution of the application. The remaining claims were rejected under 35 U.S.C. §112, for the specific reasons cited on page 2 of the action.

Applicants have amended either the specific claims listed in the §112 rejection or the independent claims from which the rejected claims depend. It is believed that all of the §112 issues were addressed, but if the examiner disagrees, the undersigned counsel for Applicants is available for a telephone interview to expedite prosecution of this application.

Claims 5, 6, 9, and 13 all depended directly or indirectly from independent claim 1, now canceled. In claim 1 as originally filed, the last line included the phrase "calculate a distance measured by the step counter" to describe the function of the receiver after receiving a signal from the transmitter. In fact, the step counter does not "measure" anything. Step counters only count steps. In the invention as claimed herein, the receiver does the calculating based on the signal received from the step counter. Thus, in claims 5, 6, 9, and 13, the language of base claim 1 has been amended to make clear that the receiver calculates a distance traveled based, at least in part, on the signal received from the step counter.

Similarly, claim 12 depended from intervening base claim 9, which included the phrase "a heart rate calculated by the heart rate monitor." The heart rate monitor does not "calculate" a heart rate. Rather, the heart rate monitor recited in claim 9 simply "monitors" or counts heart beats. The receiver then calculates and displays the heart rate. Thus, the claim 9 language added to claim 12 has been amended to clarify this point. Claim 25 includes a similar amendment.

Applicant: Pyles et al.

Application No.: 09/181,738

Art Unit: 2816

In addition, claims 5 and 21 were amended to make the transmission range from zero to thirty-six inches. This reflects the broadest range supported by the specification at page 4, lines 23-29. So long as the signal is transmitted no more than the thirty to thirty-six inch range, it avoids interference with other Rf or digital devices. Given this, the two portions of the device can be mounted on different body parts without interference from external signals. Thus, zero inches is the smallest distance and thirty-six inches is the largest distance of transmission for this preferred embodiment as recited in claims 5 and 21.

Next, claim 37 was amended to accommodate the examiner's proposed changes to this claim. In addition, the "first run stride length" was given the dual name of "base stride length", and "first stride rate" was given the dual name "base stride rate". These terms are necessary to provide the necessary antecedent basis for the formula recited at the end of the claim.

The claims that were allowable if rewritten to overcome the §112 rejection and put into independent claim format have been amended to include all of the limitations of their respective base claims. Thus, all remaining claims are in condition for allowance. No new matter is believed to be added by this amendment.

Further, submitted herewith is a Supplemental Information Disclosure Statement citing a web page and instructions for a pedometer that is now commercially available. Applicants have no information indicating that this is prior art to the present application, but in the interest of full disclosure bring it to the examiner's attention. It is noteworthy that the instructions describe the pedometer as able to distinguish a walking stride length from a running stride length, and to calculate a "steps per minute". (Page 4, "Speed Function".) Significantly, however, this pedometer can only measure distance based on a uniform stride length. These instructions specifically state, "It is important to walk or run or hike consistently. If you vary your walking pace, your stride length will vary and your distance traveled will be [different]." (Page 3, "Your Stride Length".) Further, the user's stride length must be measured and then input into this pedometer's "memory". It does not measure stride length automatically. (Page 3, "How to

A

Applicant: Pyles et al.

Application No.: 09/181,738

Art Unit: 2816

Measure Your Stride".) Thus, even if this pedometer were prior art, it has no bearing on the allowability of the claims, particularly those relating to variable stride lengths.

#### Conclusion

For the foregoing reasons, Applicants submit that this case is in condition for allowance and respectfully request that the application be passed to issue.

Respectfully submitted,

Jeffry W. Smith, Reg. No. 33455 Attorney for Applicant

Lathrop & Clark LLP

740 Regent Street, Suite 400

P.O. Box 1507

Madison, Wisconsin 53701-1507

(608) 257-7766

Amdt1.res/amdt



#### PATENT APPLICATION

In the United States Patent and Trademark Office

Applicant:

Pyles et al.

Docket No.:

**EPIXINC-4** 

Date:

March 21, 2000

Application No.:

09/181,738

Filed:

October 28, 1998

Art Unit:

2816

Examiner:

M. Wambach

TECHNOLOGY CENTER 2800

For:

PEDOMETER

Certificate of Mailing

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Assistant Commissioner for Patents Washington, D.C. 20231

On March 21, 2000

Jeffry W. Smith, Reg. No. 33455 Name of Applicant, assignee or Registered Representative

#### SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Assistant Commissioner for Patents Washington, D.C. 20231

Dear Sirs:

In accordance with 37 C.F.R. §1.56, Applicants wish to call the attention of the Examiner to the following documents:

### United States Patents

<u>U.S. Patent No.</u> 5,033,013

<u>Issue Date</u> 07-16-1991

Patentee Kato et al.

Foreign Patent Documents

Patent No. EP 0 119 009 A1 <u>Issue Date</u> 09-02-1983

Patentee Frederick

#### Other Documents

PCT/ISA/210 - International Search Report received March 20, 2000, 4 pgs.

Copies of these documents are submitted herewith along with Form PTO/SB 08A and PTO/SB 08B.

Applicants respectfully request that these documents be expressly considered during the prosecution of this application and made of record herein and appear among the "documents cited" on any patent to issue herefrom.

Respectfully submitted,

Jeffry W. Smith, Reg. No. 33455

Attorney for Applicant

LATHROP & CLARK LLP

740 Regent Street, Suite 400

P.O. Box 1507

Madison, Wisconsin 53701-1507

(608) 257-7766

PTO/SB708A (10-96) opr/ for use through 10/31/99. OMB 0651-0031

Please type a plus sign (+) inside this box →

Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

ME	NT B		ICAN	Fir Gr Ex U.S. PAT Name Appli	ing Date st Named Inventoup Art Unit saminer Name torney Docket N ENT DOCUME e of Patentee or cant of Cited	umber NTS	October 28  Nathan Pyl 2816  M. Wamba  EPIXINC-4	es ch			
ME as m	NT E	ets as necess Of 2  J.S. Patent Door	sary)	Ex U.S. PAT Name Appli	coup Art Unit raminer Name torney Docket N ENT DOCUME e of Patentee or	umber NTS	2816 M. Wamba	ch			
e as m	any she	Of 2  J.S. Patent Door	cument Kind Coo	Ex Att U.S. PAT Name Appli	taminer Name torney Docket N ENT DOCUME e of Patentee or	NTS	M. Wamba	1			
Cite	L Numbe	Of 2  J.S. Patent Doo	cument Kind Coo	U.S. PAT	torney Docket N ENT DOCUME e of Patentee or	NTS		1			
	Numbe	J.S. Patent Doo	Kind Cod	U.S. PAT	ENT DOCUME e of Patentee or	NTS	EPIXINC-4				
	Numbe	r	Kind Cod	Name Appli	e of Patentee or						
	Numbe	r	Kind Cod	Appli		_ n					
NO.	4.0000000000000000000000000000000000000				cant of Cited	1000				, Columns, Lines,	
	5,033,0	113		vn)	Applicant of Cited Document		of Cited Document MM-DD-YYYY		Where Relevant Passage Relevant Figures Appear		
			1	Kato	Kato et al		-16-1991				
			ļ	/	1011E	>					
			<i>i</i>		W 2 2 2	C					
	•••••		ļ	B	MAR 2 7 2000	<u>ų</u>					
	•••••					Ø				•••••	
					TO THE MARK	<u> </u>			Magaz.		
			·								
			· <del> </del>								
								<i>A</i>			
	•••••						-			•••••	
	•••••						1				
							/				
					Parameter State St		1			-	
		`	FORE	IGN PATE	NT DOCUME	NTS					
	Foreig	gn Patent Docu	ment		icant of Cited Cited De				Pages, Columns, Lines,		
o.1	Office <sup>3</sup>							Passages	s or Reievant	T <sup>6</sup>	
	EP 0	119 009 A1		Frederick		09-02-19	983			ļ	
						ļ					
						······					
						·				-}	
						·				1	
				:						+	
-	1	Jamba			The second second						
		Defice Office Of	Office <sup>3</sup> Number <sup>4</sup> Kind (If	Foreign Patent Document  Office <sup>3</sup> Number <sup>4</sup> Kind Code <sup>5</sup> (If known)	Foreign Patent Document  Name of P Applicant of Code (If known)	Foreign Patent Document  Name of Patentee or Applicant of Cited Document  (If known)	Office <sup>3</sup> Number <sup>4</sup> Kind Code <sup>5</sup> (If known)  Name of Patentee or Applicant of Cited Document  Name of Patentee or Applicant of Cited Document	Foreign Patent Document  Name of Patentee or Applicant of Cited Document  Office <sup>3</sup> Number <sup>4</sup> Kind Code <sup>5</sup> (If known)  Name of Patentee or Applicant of Cited Document MM-DD-YYYY	Foreign Patent Document  Name of Patentee or Applicant of Cited Document  Office <sup>3</sup> Number <sup>4</sup> Kind Code <sup>5</sup> (If known)  Name of Patentee or Applicant of Cited Document MM-DD-YYYY  Pages, C Where Repassages Figures A	Foreign Patent Document  Name of Patentee or Applicant of Cited Document  Name of Patentee or Applicant of Cited Document MM-DD-YYYY  Date of Publication of Cited Document MM-DD-YYYY  Pages, Columns, Lines, Where Relevant Passages or Reievant Figures Appear	

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup>Unique citation designation number. <sup>2</sup>See attached Kinds of U.S. Patent Documents. <sup>3</sup>Enter Office that issued the document, by the two-letter code (WIPO Standard St.3). <sup>4</sup>For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup>Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup>Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

PTO/SB/08B (10-96) Appr for use through 10/31/99. OMB 0651-0031

Please type a plus sign (+) inside this box →

Patent and Trademark Affice: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Substitut	te for form 144	I9B/PTO		Application Number	09/181,738	
INFORMATION DISCLOSURE				Filing Date	October 28, 1998	
	STATEMENT BY APPLICANT			First Named Inventor	Nathan Pyles	
SIA				Group Art Unit	2816	20
(Use aš many sheets as necessary)			ecessary)	Examiner Name	M. Wambach	
Sheet	2	Of	2	Attorney Docket Number	EPIXINC-4	

		OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (bo magazine, journal, serial, symposium, cataiog, etc.), date, page(s), volume-issue number(s), publisher, cit and/or country where published.	ok, y T²
Meh		PCT/ISA/210 - International Search Report received March 20, 2000, 4 pgs.	
		MAR 2 7 2000 S	
		TE TRADEMARK ORT	
1)	٠		
*			

		~!	
Examiner Signature	Wantach	Date Considered 6/13	\od_ (2011)

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

<sup>\*</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>&</sup>lt;sup>1</sup>Unique citation designation number. <sup>2</sup>Applicant is to place a check mark here if English language translation is attached

#### PATENT COOPERATION TREA.

# **PCT**

#### INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or ag EPIXINC—9	ent's file reference		n of Transmittal of International Search Report V220) as well as, where applicable, item 5 below.
nternational app	lication No.	International filing date (day/month/year)	(Earliest) Priority Date (day/month/year)
CT/US 99/	25314	28/10/1999	28/10/1998
PIX, INC.	et al.		
according to Ar	ticle 18. A copy is being	peen prepared by this international Searching A pransmitted to the international Bureau.  Sets of a total of3sheets.  by a copy of each prior art document cited in the second comment of the second comment cited in the second comment cited cited comment cited cited comment cited cited comment cited	
1. Basis of th	e report		
		he international search was carried out on the buniess otherwise indicated under this item.	pasis of the international application in the
	the International search Authority (Rule 23.1(b)	h was carried out on the basis of a translation on).	f the International application furnished to this
b. With re	gard to any nucleotide	and/or amino acid sequence disclosed in the	International application, the international search
Was Ca		ational application in written form.	
H	filed together with the i	international application in computer readable fo	orm.
H	furnished subsequently	y to this Authority in written form.	
Ħ	Representative programme and residence as	y to this Authority in computer readble form.	
	the statement that the	subsequently furnished written sequence listing n as filed has been furnished.	does not go beyond the disclosure in the
	the statement that the furnished	information recorded in computer readable form	n is identical to the written sequence listing has been
2 🗇 .	Certain claims were f	ound unsearchable (See Box I).	
a 🗇	Unity of invention is I	lacking (see Box II).	
4. With regard	to the title.		
		submitted by the applicant.	
		blished by this Authority to read as follows:	
		*	3 A 2
	to the abstract,		the same of
		submitted by the applicant.	76 6 6 7
	me text has been estal within one month from	blished, according to Rule 38.2(b), by this Author the date of mailing of this international search r	orty as it appears in Box III. The applicant may, eport, submit comments to this Authority.
6. The figure of	of the drawings to be p	ublished with the abstract is Figure No.	1
waned in thirt to be a little to the control of the	as suggested by the ap		None of the figures.
IXI		Manager (1997)	
	because the applicant t	falled to suggest a figure.	

	INTERNATIONAL SEA	RCH REPORT	EPORT ternational Application No		
			PCT/US 99/25314	4	
A. CLASSI IPC 7	FICATION OF SUBJECT MATTER G01C22/00				
occording to	to international Patent Classification (IPC) or to both national	destification and IPC			
	SEARCHED				
Alnimum de IPC 7	ocumentation searched (classification system followed by o G01C	lassification symbols)			
ocumenta	tion searched other than minimum documentation to the ex	tent that such documents are	Included in the fields searched		
Bectronic d	iata base consulted during the International search (name o	of data base and, where prac	tical, search terms used)		
ategory *	ENTS CONSIDERED TO BE RELEVANT  Citation of document, with indication, where appropriate,	of the relevant passages	R	elevant to claim No.	
(	US 5 033 013 A (KATO YASUJI 16 July 1991 (1991-07-16)	ET AL)	13	-3,5-7, 3, 7-19, 1-23,49	
	column 7, line 25 - line 30 column 8, line 21 - line 28 abstract		14	1,29,	
			32 37	2,35, 7,44	
		-/-			
: 4					
스	her documents are listed in the continuation of box C.	X Patent far	mily members are listed in annex.		
A" docume conside E" earlier of ding of the which is citation of docume other in docume later the	ent which may throw doubts on priority claim(e) or is cited to establish the publication date of another n or other special reason (as specified) ent referring to an oral disclosure, use, exhibition or neans ent published prior to the international filing date but an the priority date claimed	or priority data cited to under invention  "X" document of pe cannot be con involve an inv  "Y" document of pe cannot be con document is coments, such o in the art.  "&" document mem	published after the International file and not in conflict with the applic stand the principle or theory under articular relevance; the claimed investdered novel or cannot be considerative step when the document is articular relevance; the claimed investive step or involve an inventive step or involve st	ation but riving the vention ered to taken alone vention p when the uch docu- zon skilled	
	March 2000		g of the international search report  2/2000	4.	
lerne and m	naling address of the ISA  European Patent Office, P.B. 5818 Patentiaan 2  NL – 2280 HV Rijswijk  Tel. (+31–70) 340–2040, Tx. 31 651 epo ni,  Fax: (+31–70) 340–3018	Authorized offi Hunt,			

page 1 of 2

#### INTERNATIONAL SEARCH REPORT

ternational Application No
PCT/US 99/25314

M(COLINEIUS	tion) DOCUMENTS CONSIDERED TO BE RELEVANT	
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Х	EP 0 119 009 A (NIKE INTERNATIONAL LTD) 19 September 1984 (1984-09-19)	1,2,5-7,
A	page 6	14,17, 18, 21-23, 27,49
	page 10 page 11	21,10
x	US 4 371 945 A (KARR LAWRENCE J ET AL) 1 February 1983 (1983-02-01) cited in the application column 4, line 33 -column 5, line 26	1,2,6-8, 17
X A	US 5 583 776 A (LEVI ROBERT W ET AL) 10 December 1996 (1996-12-10) column 6, line 6 - line 42; claim 14; figures 5,7 abstract	49,53,54 32,35, 44,50
		, A H

Form PCT/ISA/210 (continuetion of second sheet) (July 1992

page 2 of 2

_	In search repo	4	date		nember(s)	date
US	5033013	Α.,	16-07-1991	JP	62032936 A	12-02-1987
EP	0119009	A	19-09-1984	US CA JP	4578769 A 1218455 A 59171564 A	25-03-1986 24-02-1987 28-09-1984
US	4371945	A	01-02-1983	NONE		the second second second second
US	5583776	Α	10-12-1996	NONE		
						9

TE	number.	1995, no persons are		doark	PTO/SB/21 (12-9 fed for use through 9/30/00. OMB 0651-00: Office: U.S. DEPARTMENT OF COMMERC rmation unless it displays a valid OMB contr
2 7 2000	Щ		Application Number		09/181,738
	∦ TRANSMITT	AL	Filing Date		October 28, 1998
DEMARK	FORM	. *	First Named Inventor		Nathan Pyles
	(To be used for all correspondence a	after initial filing)	Group Art Unit		2816
	(10000000000000000000000000000000000000		Examiner Name		M. Wambach
	Total Number of Pages in This Submis	sion	Attorney Docket Number	er	EPIXINC-4
	Fee Transmittal Form	Aşsignmer (For an Ap,		То	After Allowance Communication
	Fee Attached	Drawing(s	or.		Group  Appeal Communication to Board
	Amendment / Response	Licensing-	related Papers	Of	Appeals and Interferences
	After Final	CONTRACTOR OF THE	outing Slip (PTO/SB/69) mpanylng Petition	Bries	Appeal Communication to Group (Appeal Notice, Brief, Reply
	Affidavits/declaration(s)	To Conver	t a Provisional		Proprietary Information
	Extension of Time Request	100.0	Attorney, Revocation Correspondence		Status Letter
	Express Abandonment Request	Address  Terminal D	Disclaimer		Additional Enclosure(s) (Please identify below):
	Information Disclosure Statement		by Statement or RefunRECEIV	E	PTO/SB 08A and PTO/SB 08 with 3 documents
	Certified Copy of Priority Document(s)		MAR 2 9 2000	-	
	Response to Missing Parts/ Incomplete Application	Remarks	additional fees that	is here may b credit a	eby authorized to charge any e required with respect to this any overpayment, to Deposit
	Response to Missing Parts Under 37 CFR 1.52 or 1.53	ATURE OF APPLI	JOANIT ATTORNEY OR	1051	
1			tth, Reg. No.		
l	Signature	1 1 1	H		
	Date 7ha	dr 21, 200	0		
	i hereby certify that this correspondence is being mail in an envelope addressed to: Assistant Correspondence	g deposited with the U			
ŀ	Typed or printed name	Jeffry	W. Smith, Reg.	No	22455
- 1	Types of printed flame	OCTITY	W. DILLETT, MEG.	LVO	. 33455

PTO/SB/21 (12-97)

yved for use through 9/30/00. OMB 0651-0031

k Office: U.S. DEPARTMENT OF COMMERCE

k Office: U.S. DEPARTMENT OF COMMERCE

aumber.		Application Number	09/181,738		
TRANSMITTA	L	Filing Date	October 28, 1998		
FORM	. 1141	First Named Inventor	Nathan Pyles		
To be used for all correspondence aft	er initial filing)	Group Art Unit			
, ,		Examiner Name	M. Wambach		
Total Number of Pages in This Submissi	on	Attorney Docket Number	EPIXINC-4		
Fee Transmittal Form	L Assignment	Papers	After Allowance Communication		
	(For an Appl	ication) To	Group		
Fee Attached	Drawing(s)	_	- Gloup		
	Diawing(s)	L	Appeal Communication to Board		
Amendment / Response	Licensing-re	lated Papers Of			
			Appeals and Interferences		
	Petition Rou	ting Siip (PTO/SB/69)	Appeal Communication to Group		
After Final		panying Petition	(Appeal Notice, Brief, Reply		
			Brief)		
Affidavits/declaration(s)		a Provisional	Proprietary information		
	Application		— Proprietary information		
Extension of Time Request	Power of Att	orney, Revocation	Status Letter		
		orrespondence			
	Address		Additional Enclosure(s)		
Express Abandonment Request	Terminal Dis	claimer	(Please identify below):		
	Torring Dis	Sidning.			
	Small Entity	Statement	●PTO/SB 08A and PTO/SB 08B		
Information Disclosure	_		with 3 documents		
Statement	Request for	Refund			
	2				
Certified Copy of Priority		Sci.			
Document(s)	* X X X		¥ .		
	Remarks		ereby authorized to charge any		
Response to Missing Parts/			be required with respect to this tany overpayment, to Deposit		
Incomplete Application		Account No. 15-0660.			
Response to Missing Parts					
Under 37 CFR 1.52 or 1.53			8		
	TURE OF APPLIC	CANT, ATTORNEY, OR AGE	NT		
Firm or Individual name	ry W. Smit	h, Reg. No. 334	155		
Signature	yw S-t	A			
Date 7%	ch 21, 2000	CATE OF MAILING			
i hereby certify that this correspondence is being			SS		
mall in an envelope addressed to: Assistant Comm					
Typed or printed name	Jeffry W	. Smith, Reg. N	o. 33455		
	Torang M	. J J. 109. N			

PATENT APPLICATION

In the United States Patent and Trademark Office

Applicant:

Pyles et al.

Docket No.:

**EPIXINC-4** 

Date:

April 4, 2000

Application No.:

09/181,738

Filed:

October 28, 1998

Art Unit:

2816

Examiner:

M. Wambach

For:

PEDOMETER

Certificate of Mailing

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Assistant Commissioner for Patents Washington, D.C. 20231

On Apr:1 4,2000

Jeffry W. Smith, Reg. No. 33455 Name of Applicant, assignee or Registered Representative

#### SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Assistant Commissioner for Patents Washington, D.C. 20231

Dear Sirs:

In accordance with 37 C.F.R. §1.56, Applicants wish to call the attention of the Examiner to the following documents:

#### United States Patents

### RECEIVED

Patentee
Hiller et al.
Searcy
Lowrey et al.
Ruehlemann
Wu
Kato et al.
Lubell et al.
Frederick
Dassler
Gerhaeuser et al.

APR 1 1 2000

4,830,021	05-16-1989	Thornton
4,962,469	10-09-1990	Ono et al.
5,065,414	11-12-1991	Endou et al.
5,164,967	11-17-1992	Endo et al.
5,485,402	01-16-1996	Smith et al.
5,720,200	02-24-1998	Anderson et al.
5,724,265	03-03-1998	Hutchings
5,899,963	05-04-1999	Hutchings
5,976,083	11-02-1999	Richardson et al.
6,018,705	01-25-2000	Gaudet et al.

Copies of these documents are submitted herewith along with Form PTO/SB 08A.

This supplemental information disclosure statement shall be considered under 37 C.F.R. §1.97(c)(1) because no final action is believed to have been mailed before the mailing of this statement. Further, to the knowledge of the undersigned after making reasonable inquiry, no fee is believed to be owed because no item contained herein was known to any individual designated in §1.56(c) more than three months prior to the filing of this supplemental information disclosure statement.

Applicants respectfully request that these documents be expressly considered during the prosecution of this application and made of record herein and appear among the "documents cited" on any patent to issue herefrom.

RECEIVED

APR 1 1 2000

Respectfully submitted,

TECHNOLOGY CENTER 2800

Jeffly W. Smith, Reg. No. 33455

Attorney for Applicant LATHROP & CLARK LLP

740 Regent Street, Suite 400

P.O. Box 1507

Madison, Wisconsin 53701-1507

(608) 257-7766

Please typę a plu	s sign (+) Ur	inside this box -+ the oder the Paperwork Reduction	Act of 1995, no p	ersons are required to resp	Paten and to a collection	Approdemar	ved for u k Office: unless l	U.S. Di	ugh 10. EPART ys a va	/31/99. ( MENT C ild OMB	OMB 0651-00 F COMMER control numb
Substitute f	Marie Charles	1449A/PTO		Application Numb		09/181,73	12 12 25	19401 - 1940		/	
INFORMATION DIGGL COURS			Filing Date		October 28	8, 1998					
INFORMATION DISCLOSURE				First Named Inver	ntor	Nathan Py	les	x	1	5	
STAT	EME	ENT BY APP	LICANT	Group Art Unit	X	2816	_	4	-	1	
//	lee as i	many sheets as nece	ecany)	Examiner Name		M. Wamba	ech .		+		
(Use as many sheets as necessary)  Sheet 1 Of 1		Attorney Docket Number EPIXINC-		<del></del>							
Sileet				U.S. PATENT DOCUMEN	- Extractive	L ELIXING	•		_	-	5-47-XII
Examiner	Cite	U.S. Patent D	ocument	Name of Patentee o		of Publicati	on T	Pages	. Colu	ımns, L	ines.
Initials*	No.1		Kind Code <sup>2</sup>	Applicant of Cited	of C	of Cited Docume		ent Where Relevant Pass		assages or	
		Number Kind Code <sup>2</sup> (If known)		Document Mi		IM-DD-YYYY		Relevant Figures Appear			
Men		4,144,568		Hiller et al.	03-1	3-1979					A A
MU	1	4,220,996		Searcy	09-0	2-1980			•••••	••••••	
mw		4,387,437		Lowrey et ai.	06-0	7-1983		•••••	••••••	••••••	
MN		4,460,823	,	Ruehiemann	07-1	7-1984			•••••		
PRW		4,466,204		Wu	08-2	1-1984					
mer		4,560,861	1	Kato et al.	12-2	4-1985					
MU		4,566,461	DE	Lubell et al.	01-2	8-1986					
MN		4,578,769	V. L	Prederick	03-2	5-1986					
MU		4,703,445	10702	n-casilei	10-2	7-1987					
MW		4,763,287	NOW 1	Getaeuser et al.	08-0	9-1988					
Hew		4,830,021	\	Tennton	05-1	6-1989					
MW	ļ	4,962,469	TENT & TR	ono et al.	10-0	9-1990					
Me	ļ	5,065,414		Endou et al.	11-1	2-1991					
m M	ļ	5,164,967		Endo et al.	11-1	7-1992					
Men	ļ	5,485,402		Smith et al.	01-1	6-1996					
mu	ļ	5,720,200		Anderson et al.	02-2	4-1998					
MN	ļ	5,724,265		Hutchings	03-0	3-1998					
MC	ļ	5,899,963		Hutchings	05-0	4-1999					
MU	ļ	5,976,083		Richardson et al.	11-0	2-1999					
PRU		6,018,705		Gaudet et al.		5-2000					
			FOREI	ON PATENT DOCUMENTS							
Examiner Initials*	Cite Office 3 Number Kind Code 5 Ap		me of Patentee or plicant of Cited cument			Where Relevant		Ts			

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup>Unique citation designation number. <sup>2</sup>See attached Kinds of U.S. Patent Documents. <sup>3</sup>Enter Office that issued the document, by the two-letter code (WIPO Standard St.3). <sup>4</sup>For Japanese patent documents, the Indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup>KInd of document by the appropriate symbols as Indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup>Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

PTO/SB/21/12-97) 2816

Please type a plus sign (+) inside this box. A Patent and Trademan Office: U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control

number.			
	_	Application Number	09/181,738
TRANSMITTAL	PE	Filing Date	October 28, 1998
FORM APR 10	, 5) [	First Named Inventor	Nathan Pyles
(To be used for all corresponding e after init	tial filings	Group Art Unit	2816
TADEN		Examiner Name	M. Wambach
Total Number of Pages in This Submission		Attorney Docket Numbe	r EPIXINC-4
Fee Attached  Amendment / Response  After Final  Affidavits/declaration(s)		ated Papers  ng Slip (PTO/SB/69)  anying Petition	After Allowance Communication To Group  Appeal Communication to Board Of Appeals and Interferences  Appeal Communication to Group (Appeal Notice, Brief, Reply Brief)  Proprietary Information
Extension of Time Request	Dawer of Atto	rney, Revocation	Status Letter
Express Abandonment Request	Change of Co ess Terminal Disc		Additional Enclosure(s) (Please identify below):
Information Disclosure Statement  Certified Copy of Priority	Small Entity S		PTO/SB 08A with 20 documents RECEIVEI  APR 1 1 2000
Document(s)			TECHNOLOGY CENTER 28
Response to Missing Parts/ Incomplete Application  Response to Missing Parts Under 37 CFR 1.52 or 1.53	arks	additional fees that	is hereby authorized to charge any may be required with respect to this credit any overpayment, to Deposit 60.
	E OF APPLIC	ANT, ATTORNEY, OR	AGENT
Firm or Individual name Jeffry	State of the state of the state of		33455
Signature Compa	) - Ja	<u>it</u> t	
Date April 2	CERTIFICA	TE OF MAILING	Annerswer
I hereby certify that this correspondence is being deposi mali in an envelope addressed to: Assistant Commission	ted with the Unite	d States Postal Service as fin	
Typed or printed name Je	effry W.	Smith, Reg.	No. 33455
Signature Pff W	, South	•	Date April 4, 1000

PTO/SB/21 (12-97)
Id for use through 9/30/00. OMB 0651-0031
Patent and Tradernam Office: U.S. DEPARTMENT OF COMMERCE
and to a collection of information unless it displays a valid OMB control

	Application Number	09/181,738		
TRANSMITTAL	Filing Date	October 28, 1998		
FORM	First Named Inventor	Nathan Pyles		
(To be used for all correspondence after initial filing)	Group Art Unit	2816		
in the second se	Examiner Name	M. Wambach		
Total Number of Pages in This Submission	Attorney Docket Number	EPIXINC-4		
Fee Attached  APR 1 0 2000  Drawing  Amendment / Response  Licensing  Petition I  And Accompanity Affidavits/declaration(s)  Extension of Time Request  Fee Attached  Drawing  Petition I  And Accompanity Request  Change of Address	ent Papers  application)  g-related Papers  Routing Slip (PTO/SB/69)  companying Petition  ert a Provisional  f Attorney, Revocation  of Correspondence	After Allowance Communication  To Group  Appeal Communication to Board  Of Appeals and Interferences  Appeal Communication to Group (Appeal Notice, Brief, Reply  Brief)  Proprietary Information  Status Letter  Additional Enclosure(s) (Please identify below):		
Information Disclosure Statement  Certified Copy of Priority	itity Statement for Refund	PTO/SB 08A with 20 documents  RECEIVE  APR 1 1 2000		
Document(s)  Remarks  Response to Missing Parts/ Incomplete Application  Response to Missing Parts Under 37 CFR 1.52 or 1.53	additional fees that n communication, or or Account No. 15-0660			
	PLICANT, ATTORNEY, OR A			
	nith, Reg. No. 3	3455		
Signature Coffy 2 - 2000	dintl	the second of the second		
The First	FICATE OF MAILING			
hereby certify that this correspondence is being deposited with the ail in an envelope addressed to: Assistant Commissioner for Pate	United States Postal Service as first			
yped or printed name Jeffry	W. Smith, Reg.	No. 33455		
		Date April 4, 1000		

JUN-19-00 14:54 FROM:LATHROP & CLARK

ID:

PAGE 3/6

#### PATENT APPLICATION

In the United States Patent and Trademark Office

Applicant:

Pyles et al.

Docket No.:

EPIXINC-4

Date:

June 19, 2000

Application No.:

09/181,738

Filed:

October 28, 1998

Art Unit:

2816

Examiner:

M. Wambach

For PEDOMETER

FAX COPY RECEIVED A

Certificate of Mailing
I hereby certify that this
correspondence is being
transmitted herewith via facsimile
to: Examiner M. Wambach, United
States Patent and Trademark
Office, at (703) 308-7722

Signature

Jeffry W. Smith. Reg. No. 33455 Name of Applicant, assignee or Registered Representative

AMENDMENT

Attn: Examiner M. Wambach Assistant Commissioner for Patents Washington, D.C. 20231

Dear Sir:

In response to the telephone interviews on June 12 and 15, 2000 with Examiner

Wambach, Applicant submits the following amendments and remarks.

In the Claims

Please cancel claims 5, 6, and 14

Please amend claims 13 and 17 as follows:

ID:

## 2/3. (Twice Amended.) A pedometer comprising:

a step counter mountable on a user first body portion;

a transmitter in communication with the step counter to generate a signal corresponding to each step and transmit the signal; and

a receiver mountable on a user second body portion to receive the signal transmitted
from the transmitter and use the signal to calculate a distance traveled,
wherein the pedometer includes a data processor programmed to calculate the
distance traveled by multiplying the number of strides taken by a stride length that
varies according to a rate at which strides are taken by:

timing a user first run of a predetermined distance;

counting the total number of strides in the user first run;

dividing the first run distance by the stride count to obtain a base stride length;

dividing the stride count by the first run time to obtain a base stride rate;

counting strides in a period of time during a user second run to obtain an actual

stride rate;

calculating the actual stride length using the formula:

Actual Stride Length = Base Stride Length + Base Stride Length \*(((Actual Stride

Rate - Base Stride Rate)N)/Base Stride Rate);

where N is in the range of between 1 and 3.

1. (Twice Amended.) A pedometer comprising:

a step counter;

a transmitter in communication with the step counter to generate a step count signal corresponding to each step and transmit the step count signal; and a receiver mountable on a user body portion to receive the step count signal transmitted from the transmitter [and calculate a distance from a number of strides measured by the step counter]; and

B

a data processor programmed to [calculate a distance traveled by multiplying the number of strides taken by a stride length that varies according to a rate at which strides are taken] use the step count signal to: calculate a stride rate and a stride length from a plurality of walks or runs each over a known distance to generate a range of corresponding stride rates and stride lengths.

and in subsequent walks or runs, calculate an actual stride rate from the number of strides counted by the step counter over a unit of time, compare the actual stride rate with the range of corresponding generated stride rates and stride lengths, and therefrom, calculate an actual stride length to be used in calculating an actual distance traveled.

#### Remarks

The undersigned counsel for Applicant wishes to thank Examiner Wambach for the courteous and productive telephone interviews of June 12 and 15, 2000. In the June 12, 2000 interview, Examiner Wambach indicated that *Kato*, U.S. Patent No. 5,033,013 and *Hutchings*, U.S. Patent Nos. 5,724,265 and 5,899,963 disclosed a correspondence between stride rate and stride length. Consequently, any claims based on this broad concept were not allowable, but

JUN-19-00 14:55 FROM:LATHROP & CLARK

ID:

PAGE 6/6

claim, reciting a specific algorithm for deriving a range of stride lengths or a pedometer in combination with a heart rate monitor are allowable.

On June 15, 2000, the undersigned counsel for Applicant telephone Examiner Wambach indicating that a distinction between the art of record and the present pedometer invention is the use of data input from runs or walks over known distances to establish a range of stride rate versus stride length data that can be used in subsequent runs or walks to derive actual stride lengths from actual stride rates. Therefore, claim 17 has been amended to include language addressing this novel and non-obvious concept. This is not new matter, rather it simply describes the broad concept discussed throughout the application of using trial runs/walks to obtain a range of data to be used for use in subsequent runs or walks.

Claims 5, 6, and 14 have been canceled.

Claim 13 was combined with what is believed to be its allowable dependent claim 14. Thus, amended claim 13, and its respective dependent claims are allowable.

#### Conclusion

Applicant submits that the present application with its remaining claims is in allowable form and in condition for allowance. Applicant respectfully requests that this application be passed to issue.

Respectfully submitted,

W. Smith, Reg. No. 33455

Attorney for Applicant

LATHROP & CLARK LLP

740 Regent Street, Suite 400

P.O. Box 1507

Madison, Wisconsin 53701-1507

(608) 257-7766

Allon.		Application Number	09/181,738		
TRANSMITTA	L	Filing Date	October 28, 1998		
FORM		First Named Inventor	Nathan Pyles		
(To be used for all correspondence aft	er initial filing)	Group Art Unit	2816 M. Wambach		
		Examiner Name			
Total Number of Pages in This Submissi	on	Attorney Docket Number	EPIXINC-4		
Fee Transmittal Form  Fee Attached  Amendment / Response		olication)	After Allowance Communication To Group  Appeal Communication to Board Of Appeals and Interferences  Appeal Communication to Group		
After Final	And Accom	panying Petition	(Appeal Notice, Brief, Reply Brief)		
Affidavits/declaration(s)	Application  Power of Al Change of C	ttorney, Revocation	Proprietary Information  Status Letter		
Express Abandonment Request	Address  Terminal Di		Additional Enclosure(s) (Please identify below):		
Information Disclosure Statement	Request for	/ Statement	(Please identify below):  Stoly Richly Solo Richly Richly Solo Richly Solo Richly Solo Richly Solo Richly Solo Ric		
Certified Copy of Priority  Document(s)	Š.		300		
Response to Missing Parts/ Incomplete Application Response to Missing Parts	Remarks				
Under 37 CFR 1.52 or 1.53		754m	- X		
		LICANT, ATTORNEY, OR AGENT th, Reg. No. 3	3455		
ignature	56 5 H	Maria Reg. No. 3	3433		
Pate 1	€ 15,2000	fire the same of t			
hereby certify that this correspondence Vambach, United States Patent and Trad	is being transmitt	CATE OF FACSIMILE and herewith via facsimile to 1 (703) 308-7722 on this dat	Examiner M.		
			<del></del>		
yped or printed name	Jeffry W	. Smith, Reg.	No. 33455		



This transmission is intended for the exclusive use of the named recipient. If you are not the named recipient, you are hereby notified that any use, copying, disclosure or distribution of the information transmitted herewith may be subject to legal restriction or sanction, and you are requested to notify us by telephone (collect) (608) 257-7766 to arrange for return or destruction of the information and all copies. Thank you!

Our Fax Number:

(608) 257-1507

Our Phone Number:

(608) 257-7766

Our Address:

P.O. Box 1507; Madison, WI 53701-1507

Fax to:

Examiner M. Wambach

UNITED STATES PATENT AND TRADEMARK

**OFFICE** 

At Fax Number:

(703) 308-7722

From:

Jeffry W. Smith

Date:

June 19, 2000

Time:

Our Reference:

**EPIXINC-4** 

This transmission has 6 pages (including this sheet)

GROUP 2500

Transmission Completed

If there is a problem regarding this transmission, please call receptionist at (608) 257-7766



	Application No. 09/181,738	Applicant(s)	yles
Interview Summary	Examiner Margaret W	Group Art l	
All participants (applicant, applicant's representat	ive, PTO personnel):	****	
(1) Margaret Wambach	(3)		, (
(2) Jeffry Smith			XX
Date of Interview Jun 12 and 15, 2000			X
Type: 🛮 Telephonic 🗀 Personal (copy is give	en to applicant	applicant's representative	o).
Exhibit shown or demonstration conducted:	Yes 🛛 No. If yes, brief	description:	
Agreement X was reached.   was not reached.	ed.	(	¥ 1
Claim(s) discussed: <u>5, 6, 13, and 17</u>			100 Telescope
dentification of prior art discussed:  Kato and Hutchings			
nventive subject matter from the disclosure was prior art. Mr Smith was also notified that the well	discussed in order to amen	d the claims such that th	ey defined over the
nventive subject matter from the disclosure was prior art. Mr Smith was also notified that the well	discussed in order to amen	d the claims such that th	ey defined over the
nventive subject matter from the disclosure was prior art. Mr Smith was also notified that the well	discussed in order to amen	d the claims such that th	ey defined over the
nventive subject matter from the disclosure was prior art. Mr Smith was also notified that the we	discussed in order to amen	d the claims such that th	ey defined over the
nventive subject matter from the disclosure was prior art. Mr Smith was also notified that the well not included.  A fuller description, if necessary, and a copy of the claims allowable must be attached. Also, who	discussed in order to amen b pages cited on the IDS w the amendments, if availablere no copy of the amende	d the claims such that the could not be considered by the considered be considered by the considered be considered by the co	ey defined over the ecause dates were
A fuller description, if necessary, and a copy of the claims allowable must be attached.	the amendments, if availablere no copy of the amende.)	e, which the examiner ag	ey defined over the ecause dates were greed would render the claims allowable
A fuller description, if necessary, and a copy of the claims allowable must be attached.  It is not necessary for applicant to provide the paragraph above has been checked to AST OFFICE ACTION IS NOT WAIVED AND MUsterior are provided to the last Office at the claim of the claims.	the amendments, if available ere no copy of the amende.)  e a separate record of the sindicate to the contrary, A ST INCLUDE THE SUBSTAL action has already been file	e, which the examiner agents which would render to the considered because of the interview	ey defined over the ecause dates were reed would render the claims allowable v.
A fuller description, if necessary, and a copy of the claims allowable must be attached.  A fuller description, if necessary, and a copy of the claims allowable must be attached. Also, who is available, a summary thereof must be attached.  It is not necessary for applicant to provide the paragraph above has been checked to the claims. AST OFFICE ACTION IS NOT WAIVED AND MUST OFF	the amendments, if available ere no copy of the amende of the substantial indicate to the contrary, A ST INCLUDE THE SUBSTANCE above (including any attaction has already been file MENT OF THE SUBSTANCE above (including any attaction is considered to fulfill).	e, which the examiner agents which would render to substance of the interview of the interv	reed would render the claims allowable  ONSE TO THE  (See MPEP ONE MONTH  Output  Outp
Unless the paragraph above has been checked to AST OFFICE ACTION IS NOT WAIVED AND MUSCECTION 713.04). If a response to the last Office at ROM THIS INTERVIEW DATE TO FILE A STATEM 2. Since the Examiner's interview summary each of the objections, rejections and requirements of the completed Office action. Applicant is not relieved from	the amendments, if available ere no copy of the amende of the substantial indicate to the contrary, A ST INCLUDE THE SUBSTANCE above (including any attaction has already been file MENT OF THE SUBSTANCE above (including any attaction is considered to fulfill).	e, which the examiner agents which would render to substance of the interview of the interv	reed would render the claims allowable  ONSE TO THE  (See MPEP ONE MONTH  Output  Outp
A fuller description, if necessary, and a copy of the claims allowable must be attached.  It is not necessary for applicant to provide the paragraph above has been checked to AST OFFICE ACTION IS NOT WAIVED AND MUST CHARLES (IN THIS INTERVIEW DATE TO FILE A STATEM CONTROL OF THE Examiner's interview summary each of the objections, rejections and requirements of the completed Office action. Applicant is not relieved from the control of the objections, rejections and requirements.	the amendments, if available ere no copy of the amende of the substantial indicate to the contrary, A ST INCLUDE THE SUBSTANCE above (including any attaction has already been file MENT OF THE SUBSTANCE above (including any attaction is considered to fulfill).	e, which the examiner agents which would render to substance of the interview of the interv	reed would render the claims allowable  ONSE TO THE  (See MPEP ONE MONTH  Output  Outp

Paper No. 16



## UNITED STATES DEPARTMENT OF COMMERCE Patent and Trademark Office

Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

APPLICATION NO. FILING DATE FIRST NAMED INVENTOR ATTORNEY DOCKET NO. 09/181.738 10/28/98 **PYLES** EPIXINC-4 020455 MMC1/0621 LATHROP & CLARK LLP HANGACH-M PAPER NUMBER 740 REGENT STREET SUITE 400 P.O. BOX 1507 MADISON WI 53701-1507 DATE MAILED: 06/21/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

PTO-90C (Rev. 2/95) U.S. G.P.O. 2000 ; 465-188/25266 1- File Copy



UNITED STATES DEPARTMENT OF COMMERCE Patent and Trademark Office

#### NOTICE OF ALLOWANCE AND ISSUE FEE DUE

020455 MMC1/0621 LATHROP & CLARK LLP 740 REGENT STREET SUITE 400 P.O. BGX 1507 MADISON WI 53701-1507

APPLICATION NO.	FILING DATE	TOTAL CLAIMS	EXAMIN	ER AND GROUP ART UNIT		DATE MAILED
09/181.73	8 10/28/96	033	WAMBACH.	M	2816	06/21/00
First Named PYLES. Applicant		25	USC 154(6)	term ext. =	0 Day	/s.
TLE OF PEDOMETER						
ILL OI		/				
, LL OI		//				
ILL OI		//		/.	/	
VENTION  ATTY'S DOCKET NO.	CLASS-SUBCLASS	BATCH NO.	APPLN. TYPE	SMALL ENTITY   FE	EE DUE	DATE DUE

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED.

THE ISSUE FEE MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED.

#### HOW TO RESPOND TO THIS NOTICE:

- I. Review the SMALL ENTITY status shown above, If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:
  - A. If the status is changed, pay twice the amount of the FEE DUE shown above and notify the Patent and Trademark Office of the change in status, or
  - B. If the status is the same, pay the FEE DUE shown above.

If the SMALL ENTITY is shown as NO:

- A. Pay FEE DUE shown above, or
- B. File verified statement of Small Entity Status before, or with, payment of 1/2 the FEE DUE shown above.
- II. Part B-Issue Fee Transmittal should be completed and returned to the Patent and Trademark Office (PTO) with your ISSUE FEE. Even if the ISSUE FEE has already been paid by charge to deposit account, Part B Issue Fee Transmittal should be completed and returned. If you are charging the ISSUE FEE to your deposit account, section "4b" of Part B-Issue Fee Transmittal should be completed and an extra copy of the form should be submitted.
- III. All communications regarding this application must give application number and batch number.

  Please direct all communications prior to issuance to Box ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PATENT AND TRADEMARK OFFICE COPY

PTOL-85 (REV. 10-96) Approved for use through 06/30/99. (0651-0033)

gr	Application No.  09/181,738  Examiner  Margaret Wamba		Applicant(s) Pyles		
Notice of Allowability			Group Art Unit ach 2816		
All claims being allowable, PROSECUTION ON THE Merewith (or previously mailed), a Notice of Allowanc mailed in due course.	ERITS IS (OR REMAINS) e and Issue Fee Due or o	CLOSED in ther appropri	this application.	If not included ation will be	
This communication is responsive to Amdt B (6/1)	9/00) and tele. interview:	s (6/12 & 6/	(15/00)		
The allowed claim(s) is/are 12, 13, and 15-45					
The drawings filed on are a	cceptable.				
Acknowledgement is made of a claim for foreign p	riority under 35 U.S.C.	119(a)-(d).	740		
☐ All ☐ Some* ☐ None of the CERTIFIED c	oples of the priority docu	ments have	been		
received.					
received in Application No. (Series Code/Ser	ial Number)				
.   received in this national stage application from	om the International Bure	au (PCT Rule	e 17.2(a)).		
*Certified copies not received:		1			
Acknowledgement is made of a claim for domestic	priority under 35 U.S.C.	. § 119(e).			
A SHORTENED STATUTORY PERIOD FOR RESPONSI THREE MONTHS FROM THE "DATE MAILED" of this ABANDONMENT of this application. Extensions of tire	Office action. Failure to	timely com	ply will result in		
Note the attached EXAMINER'S AMENDMENT or that the oath or declaration is deficient. A SUBST				nich discloses	
Applicant MUST submit NEW FORMAL DRAWING	S	10			
☐ because the originally filed drawings were declar	ared by applicant to be in	formal.			
$\boxtimes$ including changes required by the Notice of Drato Paper No. <u>6</u> .	ftsperson's Patent Draw	ing Review,	PTO-948, attac	hed hereto or	
<ul> <li>including changes required by the proposed dra approved by the examiner.</li> </ul>	wing correction filed on		, whi	ch has been	
including changes required by the attached Exa	miner's Amendment/Con	nment.			
Identifying indicia such as the application number (drawings. The drawings should be filed as a separ Draftsperson.					
Note the attached Examiner's comment regarding	REQUIREMENT FOR THE	DEPOSIT O	F BIOLOGICAL	MATERIAL.	
Any response to this letter should include, in the upper CODE/SERIAL NUMBER). If applicant has received a Nand DATE of the NOTICE OF ALLOWANCE should als	lotice of Allowance and	APPLICATIO Issue Fee Du	N NUMBER (SE	RIES ATCH NUMBER	
Attachment(s)		an.	+0	/. )	
☐ Notice of References Cited, PTO-892	N	114	ugaret rose	Wamback	
☑ Information Disclosure Statement(s), PTO-1449		<u>.</u>			
☐ Notice of Draftsperson's Patent Drawing Review					
☐ Notice of Informal Patent Application, PTO-152			Margaret R.1		
			Primary Ex	aminer	
Examiner's Amendment/Comment  Examiner's Comment Regarding Requirement for	r Denocit of Riclasias! M	ateria!			
		ateriai		*	
Examiner's Statement of Reasons for Allowance					

#13

#### PATENT APPLICATION

#### In the United States Patent and Trademark Office

Applicant:

Pyles et al.

Docket No.:

KNOWMO-2

Date:

August 11, 2000

Application No.:

09/181,738

Filed:

October 28, 1998

Art Unit:

2816

Examiner:

M. Wambach

For: PEDOMETER

#### Certificate of Mailing

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Assistant Commissioner for Patents Washington, D.C. 20231

On aug. 11 2000

Jeffry W. Smith, Reg. No. 33455 Name of Applicant, assignee or Registered Representative

#### Information Disclosure Statement

RECEIVED

Assistant Commissioner for Patents Washington, D.C. 20231

TECHNOLOGY CENTER 2800

Dear Sir:

In accordance with 37 C.F.R. §1.56, Applicants wish to call the attention of the Examiner to the following document:

PCT/IPEA/408, Written Opinion received August 7, 2000, 5 pgs. The references cited in the PCT's Written Opinion are already of record.

A copy of this document is being submitted herewith along with Form PTO/SB 08b.

This Information Disclosure Statement is accompanied by a Transmittal of Information Disclosure Statement under 37 C.F.R. §1.97(d); a Statement under 37 C.F.R. §1.97(e); and the appropriate \$130.00 Petition fee.

Applicants respectfully request that these documents be expressly considered during the prosecution of this application and made of record herein and appear among the "documents cited" on any patent to issue herefrom.

Respectfully submitted,

Jeffry W. Smith, Reg. No. 33455

Attorney for Applicant

LATHROP & CLARK LLP

740 Regent Street, Suite 400

P.O. Box 1507

Madison, Wisconsin 53701-1507

(608) 257-7766

## PATENT APPLICATION

# In the United States Patent and Trademark Office

Applicant:

Pyles et al.

Docket No.:

KNOWMO-2

Date:

August 11, 2000

Application No.:

09/181,738

Filed:

October 28, 1998

Art Unit:

2816

Examiner:

M. Wambach

For: PEDOMETER



Certificate of Mailing
I hereby certify that this
correspondence is being deposited
with the United States Postal
Service as first class mail in an
envelope addressed to: Assistant
Commissioner for Patents,
Washington, D.C. 20231

On Aug. 11, 2000

Jeffry W. Smith, Reg. No. 33455 Name of Applicant, assignee or Registered Representative

TRANSMITTAL OF INFORMATION DISCLOSURE STATEMENT AFTER MAILING DATE OF FINAL ACTION OR NOTICE OF ALLOWANCE BUT BEFORE PAYMENT OF ISSUE FEE (37 C.F.R. §1.97(d))

Attn: Group Director

Assistant Commissioner for Patents Washington, D.C. 20231

RECEIVED

VIIE 5 2 5000

TECHNOLOGY CENTER 2800

Dear Sir:

The Information Disclosure Statement submitted herewith is being filed after a Notice of Allowance under §1.311, but before the payment of the issue fee.

In accordance with the requirements of 37 C.F.R. §1.97(d):

- A. Accompanying this transmittal is a Statement, as specified in 37 C.F.R. §1.97(e).
- Applicants hereby petition for the consideration of the accompanying Information
   Disclosure Statement. 37 C.P.R. §1.97(d)(2).

08/16/2000 JADDO1

00000035 09181738

01 FC:122

130.00 OP

Applicants submit the Petition fee set forth in §1.17(i) in the amount of \$130.00. C.

If any additional fees are due, please charge Account No. 15-0660. A duplicate copy of this document is enclosed.

Respectfully submitted,

Jeffry W. Smith, Reg. No. 33455

Attorney for Applicant

LATHROP & CLARK LLP

740 Regent Street, Suite 400 P.O. Box 1507

Madison, Wisconsin 53701-1507

(608) 257-7766

PTO/SB/08B (10-96) Approved for use through 10/31/99. OMB 0651-0031

Please type a plus sign (+) Inside this box  $\rightarrow \mathbb{H}$ 

Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Substitut	te for form 1449	9B/PTO		Application Number	09/181,738	
INFORMATION DISCLOSURE				Filing Date	October 28, 1998	010
				First Named inventor	Nathan Pyles	L AUG MI
SIA	STATEMENT BY APPLICANT		Group Art Unit	2816	1 20an 5	
	(Use as many	sheets as n	ecessary)	Examiner Name	M. Wambach	E 37
Sheet	1	Of	1	Attorney Docket Number	KNOWMO-2	SMARK OFFI

	-	OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS		
Examiner Initials*	Cite No. <sup>1</sup>	include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, cataiog, etc.), date, page(s), voiume-issue number(s), publisher, city and/or country where published.		
mw		PCT/IPEA/408, Written Opinion received August 7, 2000, 5 pgs.		
	••••••			
	•••••			
		1, 1		
		*	ial Na	

Examiner Signature	Wanbach	Date Considered	10/2/00

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup>Unique citation designation number. <sup>2</sup>Applicant is to place a check mark here if English language translation is attached

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

(2)

To: JEFFRY W.		AINING AUTHORITY		PCT AUG - 7 2000
LATHROP & 740 REGENT	CLARK LLP STREET, SUITE 40	ACTION BES	nion Due	LATUDOD O OLADICI
P.O.BOX 1507 MADISON W		DOOKETE	nion bue	WRITTEATHROOM& CLARK L
MADISON W	1 33701-1307	BY:	L DATE	
		TICKLER	一 DAYEL	=: 178700
		BY:	DATE	s Clarente de la companya de la c
			Date of Mailing (day/month/year)	@ I AUG2000
Applicant's or agent EPIXINC-9	s file reference			vithin TWO months com the above date of mailing
International applica	tion No.	International filing date	(day/month/year)	Priority date (day/month/year)
PCT/US99/25314		28 OCTOBER 1999	Programme and the second	28 OCTOBER 1998
International Patent IPC(7): GO1C 21/	Classification (IPC) of the control	or both national classific /24.2	cation and IPC	
	<u> </u>			
Applicant Epix, Inc.				
NET CONTRACT			180 100 10 841	
1. This written opi	nion is the first	(first, etc.)	drawn by this Interna	ational Preliminary Examining Authority.
		lating to the following it		
1 100	Basis of the opinion			
, [7]	basis of the obmion			
T [] 5	del a city		North Sale	
	riority			
ш 📙 н	Ion-establishment of		novelty, inventive ste	p or industrial applicability
IN   1	Ion-establishment of ack of unity of inve	ention		
N   1	Ion-establishment of ack of unity of inve Reasoned statement u	ention	ith regard to novelty,	p or industrial applicability inventive step or industrial applicability;
v X ;	Ion-establishment of ack of unity of inve Reasoned statement u	ention under Rule 66.2(a)(ii) w tions supporting such st	ith regard to novelty,	
VI	Ion-establishment of ack of unity of inve- Reasoned statement unitations and explana- certain documents circum	ention under Rule 66.2(a)(ii) w tions supporting such st	ith regard to novelty, atement	
VI C	Con-establishment of ack of unity of invested assumed statement unitations and explanate certain documents cities and defects in the	ention under Rule 66.2(a)(ii) w tions supporting such st ted	ith regard to novelty, atement	
лі	Con-establishment of ack of unity of invested and explanate certain documents citerain defects in the certain observations of the certain observations observations of the certain observations observations observations of the certain observations observations observations observations observations observations	ention  ander Rule 66.2(a)(ii) we tions supporting such stated  international application the international app	ith regard to novelty, atement	
III	Con-establishment of ack of unity of investigations and explanate certain documents circular defects in the certain observations of thereby invited to rescent the limit in	ention under Rule 66.2(a)(ii) we tions supporting such stated international application the international application the international application on the international appropriate to this opinion.	ith regard to novelty, atoment  lication	
III	Con-establishment of ack of unity of investigations and explanate certain documents circular defects in the certain observations of the certain observations of the certain time limit in Authority to grant as By submitting a writer	ention  ander Rule 66.2(a)(ii) we tions supporting such stated  international application the international application the international application the international application.  Adicated above. The applications are settlession, see Rule 6	ith regard to novelty, atoment  lication  licant may, before the 6.2(d).	inventive step or industrial applicability;  expiration of that time limit, request this by amendments, according to Rule 66.3.
III	Con-establishment of ack of unity of investablishment of ack of unity of investage of the content of the conten	ention  ander Rule 66.2(a)(ii) we tions supporting such stated  international application on the international application of the amendation of the internation of the amendation of the internation of the internation of the international application of the internation of the internation of the internation of the internation of th	ith regard to novelty, atoment  lication  lication  where appropriate, being a condition to the condition to	inventive step or industrial applicability;  expiration of that time limit, request this by amendments, according to Rule 66.3. 8 and 66.9. 6.4. uments, see Rule 66.4 bis.
III	Con-establishment of ack of unity of investables and explanate certain documents circles and explanate certain defects in the certain observations of the certain observations observations of the cer	ention  ander Rule 66.2(a)(ii) we tions supporting such stated  international application on the international application on the international application.  dicated above. The applicated above. The application of the amendation with the ex	ith regard to novelty, atoment  lication  lication  where appropriate, being the second ments, see Rules 66. and ments, see Rule 66. and ments and/or argaminer, see Rule 66.6 and ments, see Rule 66.6 and ments, see Rule 66.6 and ments, see Rule 66.6 and ments and/or argaminer, see Rule 66.6	inventive step or industrial applicability;  expiration of that time limit, request this by amendments, according to Rule 66.3. 8 and 66.9. 6.4. uments, see Rule 66.4 bis.
III	Con-establishment of ack of unity of investables and explanate certain documents circles and explanate certain defects in the certain observations of the certain observat	ention  ander Rule 66.2(a)(ii) we tions supporting such stated  international application on the international application on the international application on the international applicated above. The applicated above. The application, see Rule 64 tenguage of the amenda protunity to submit amorphication to consider an amunication with the example proliminary examinal	ith regard to novelty, atement  lication  lication  where appropriate, being the second ments, see Rules 66. and ments and/or arguments, see Rule 66.6 and ments, see Rule 66.6 and ments, see Rule 66.6 and ments and/or arguments and/or arguments, see Rule 66.6 and ments, see Rule 66.6 and ments and/or arguments	inventive step or industrial applicability;  be expiration of that time limit, request this by amendments, according to Rule 66.3. 8 and 66.9. 6.4. uments, see Rule 66.4 bis. 6. tablished on the basis of this opinion.
III	Con-establishment of ack of unity of investables and explanate certain documents circles and explanate certain defects in the certain observations of the certain observat	ention  ander Rule 66.2(a)(ii) we tions supporting such stated  international application on the international application on the international application.  Idicated above. The application of the international application of the amenda prortunity to submit amorphism and preliminary examinational preliminary examinational preliminary thed according to Rule (a)	ith regard to novelty, atement  lication  lication  where appropriate, being the second and second	inventive step or industrial applicability;  be expiration of that time limit, request this by amendments, according to Rule 66.3. 8 and 66.9. 6.4. uments, see Rule 66.4 bis. 6. tablished on the basis of this opinion. RY 2001
III	Con-establishment of ack of unity of investables and explanate certain documents circles and explanate certain defects in the certain observations of the certain observat	ention  ander Rule 66.2(a)(ii) we tions supporting such stated  international application on the international application on the international application.  I dicated above. The application of the international application.  I dicated above. The application of the application of the amenda protunity to submit amendation with the expensional preliminary examinational preliminary the according to Rule (a)	ith regard to novelty, atement  lication  lication  where appropriate, being the second ments, see Rules 66. and ments and/or arguments, see Rule 66.6 and ments, see Rule 66.6 and ments, see Rule 66.6 and ments and/or arguments and/or arguments, see Rule 66.6 and ments, see Rule 66.6 and ments and/or arguments	inventive step or industrial applicability;  expiration of that time limit, request this by amendments, according to Rule 66.3.  and 66.9.  6.4.  uments, see Rule 66.4 bis.  6.  tablished on the basis of this opinion.  RY 2001
III	Con-establishment of ack of unity of investablishment of ack of unity of investage of the contain documents citations and explanate certain defects in the certain observations of the certain observations observations of the ce	ention  ander Rule 66.2(a)(ii) we tions supporting such stated  international application on the international application on the international application.  I dicated above. The application of the international application.  I dicated above. The application of the application of the amenda protunity to submit amendation with the expensional preliminary examinational preliminary the according to Rule (a)	ith regard to novelty, atement  lication  lication  where appropriate, being the second and second	inventive step or industrial applicability;  expiration of that time limit, request this by amendments, according to Rule 66.3. 8 and 66.9. 6.4. uments, see Rule 66.4 bis. 5. tablished on the basis of this opinion. RY 2001

	4 - 5 -		-7
PA	TENT COOPE	ERATION TR	EATY   DE G E   V E
NTERNATIONAL PRELIMINARY EXA	MINING AUTHORITY		DCT
To: JEFFRY W. SMITH LATHROP & CLARK LLP 740 REGENT STREET, SUITE 4 P.O.BOX 1507 MADISON WI 53701-1507	00		CATHROP & CLARK WRITTEN OPINION (PCT Rule 66)
		Date of Mailing (day/month/year)	70 1 AUG2000
Applicant's or agent's file reference EPIXINC-9			within TWO months from the above date of mailing
International application No.	International filing da	te (day/month/year)	Priority date (day/month/year)
PCT/US99/25314	28 OCTOBER 199	99	28 OCTOBER 1998
2. This opinion contains indications re  I X Basis of the opinion  II Priority  III Non-establishment of IV Lack of unity of inv	f opinion with regard to		tep or industrial applicability
	under Rule 66.2(a)(ii) ations supporting such		, inventive step or industrial applicability;
VI Certain documents of	ited e international applicati	on	
	on the international ap		19, 21
The second secon	·		
			ne expiration of that time limit, request this
How? By submitting a wr		d, where appropriate,	by amendments, according to Rule 66.3. 5.8 and 66.9.
For the examiner's For an informal con	mmunication with the e	mendments and/or ar xaminer, see Rule 66.	guments, see Rule 66.4 bis.
4. The final date by which the internal examination report must be established.	ational preliminary ished according to Rule	69.2 is: 28 FEBRUA	ARY 2001
Name and mailing address of the IPEA  Commissioner of Patents and Trade Box PCT Washington, D.C. 20231  Facsimile No. (703) 305-3230		Authorized office  MARGARET  Telephone No.	ROSE WAYBOCH - 1/3

### WRITTEN OPINION

International application No.

	PCT/US99/25314
I. Basis of the opinion	
With regard to the elements of the international application:     X the international application as originally filed the description:     pages	
pages NONE	, as originary med
pages NONE pages NONE	, filed with the letter of
x the claims: pages 24-34	, as originally filed
	, as amended (together with any statement) under Article 19
pages NONE	, filed with the demand
	the letter of
x the drawings: pages 1	, as originally filed
pages NONE  Dages NONE	, filed with the demand
pages,	filed with the letter of
X the sequence listing part of the description: pagesNONE	, as originally filed
	, filed with the demand
pages NONE	filed with the letter of
the language of publication of the international the language of the translation furnished for the pur	purposes of international search (under Rule 23.1(b)).  l application (under Rule 48.3(b)).  poses of international preliminary examination (under Rules 55.2 and/
or 55.3).	ence disclosed in the international application, the written opinion was
drawn on the basis of the sequence listing:	and discussed in the mentational application, the written opinion was
Contained in the international application in pr	inted form.
filed together with the international application	n in computer readable form.
furnished subsequently to this Authority in wri	tten form.
furnished subsequently to this Authority in cor	nputer readable form.
The statement that the subsequently furnished wr international application as filed has been furnish	ritten sequence listing does not go beyond the disclosure in the red.
The statement that the information recorded in combeen furnished.	puter readable form is identical to the writen sequence listing has
4 X The amendments have resulted in the cancella	tion of:
X the description, pages NONE	
the claims, Nos. NONE	
X the drawings, sheets/fig NONE	
<ol> <li>This opinion has been drawn as if (some of) the am beyond the disclosure as filed, as indicated in the S</li> </ol>	endments had not been made, since they have been considered to go supplemental Box (Rule 70.2(c)).
* Replacement sheets which have been furnished to the receiving this opinion as "originally filed",	ving Office in response to an invitation under Article 14 are referred to

Form PCT/IPEA/408 (Box I) (July 1998)\*

International application No.

William	WOIN		PCT/US99/25314	
V. Reasoned statement under Rule 66.2(s citations and explanations supporting	a)(ii) with re such statem	gard to novelty, inve	ntive step or industrial	applicability
1. statement	200		2 34 35	July 1
Novelty (N)	Claims	14-16, 28-54		YE
	Claims	1-13 and 17-27		NC NC
	A			
Inventive Step (IS)	Claims	14, 16, 28-54		YI
	Claims	1-13 and 17-27		NO
		a Mayor III		
Industrial Applicability (IA)	Claims	1-54	Park Mademana Amazon	YI
	Claims	NONE		NO
				15
Claims 1-13, 17-28 lack novelty under PCT A	at 1			colou and a dat
processor which calculates a distance traveled to a rate at which strides are taken.				
Claims 14 16 and 20 54 most the suitable and	aut in DOT A	6-1- 22/2\ /4\ b		6:1.
Claims 14-16 and 29-54 meet the criteria set suggest use of data input from runs or walks				
			7.5	1 /
NEW CITATIONS		****		
US 5724265 (Hutchings) 03 MAR 1998, see	entire documen	at,	* 8	
US 5033013 (Kato et al) 16 JUL 1991, see en	itire document	•		
		*		
			*	
		No.	100	
		***		
		¥	À 4	
9				
***				0
	5			ā.

Form PCT/IPEA/408 (Box V) (July 1998)★

**			
* e ×			
100			
	-	· · · · ·	
WRITTEN OPINION		International application PCT/US99/25314	No.
ipplemental Box o be used when the space in any of the preceding	boxes is not sufficient	)	
ontinuation of: Boxes I - VIII		- 11 - 12 - 12 - 12 - 12 - 12 - 12 - 12	Sheet 10
TME LIMIT:	1		
The time limit set for response to a Written Op fter the expiration of the time limit set in the Written O	inion may not be extende	ed. 37 CFR 1.484(d). An	response received
reliminary Examination Report.			
The state of the s			
		The state of the s	¥.
작 나는 맛이 없는데 뭐 뭐 하는데			
		•	
			i e
			2011
	Tell at the late		
			V.
	5.14		4
			X
	2 2		
		1. 1.7	
		11 11 22	
m PCT/IPEA/408 (Supplemental Box) (July 1998)★			

PTO/SB/21 (12-97) 25 | 6 9/30/00. OMB 0851-0031 RTMENT OF COMMERCE

Approved for use through 9/30/00. OMB 0851-00:
Please type a plus sign (+) ineidia this trox → □ Patent and Trademark Office: U.S. DEPARTMENT OF COMMERC
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control.

number.			124		
The state of the s		Α	pplication Number	09/181,738	
TRANSM	ITTAL	F	iling Date	October 28, 1998	
FORI	VI	F	irst Named Inventor	Nathan Pyles O F E	1
The state of the s		G	Froup Art Unit	2816 AUC 1 4 200	(S)
(To be used for all correspond	lence after initial	Examiner Name		M. Wambach	9
Total Number of Pages in This S	Submission	A	ttorney Docket Number	KNOWMO-2	8
Fee Transmittal Form  Fee Attached  Amendment / Response  After Final  Affidavits/declaration(s)  Extension of Time Request	(Find the property of the prop	nd Accompar Convert a I	ed Papers g Slip (PTO/SB/69) nying Petition Provisional ney, Revocation	After Allowance Communication  Group  Appeal Communication to Booth Appeals and interferences  Appeal Communication to Government (Appeal Notice, Brief, Reply Brief)  Proprietary Information  Status Letter	oard
Express Abandonment Red  Information Disclosure Statement  Certified Copy of Priority	Address quest	Programme and a second	atement	Additional Enclosure(s) (Please identify below):  * Transmittal of Information Disclosure Statement (2p) * Statement for Information Disclosure (2pp) *PTO/SB 08b and 1 documents	p) n
Document(s)	Ť		*		
Response to Missing Parts Incomplete Application Response to Missing Pa Under 37 CFR 1.52 or 1.5	arts		AMAZAR 1974	RECEIVED  AIIR 2 3 2000  ECHNOLOGY CENTER 2800	
Firm or Individual name	Jeffry W. Sn		NT, ATTORNEY, OR AGEN	<u> </u>	
Signature	John VV. Sh		110, 33433		
Date	11.70	00			
- 4	0 1"	CERTIFICAT	E OF MAILING		
I hereby certify that this corresponding to class mail in an envelope ad 20231 on this date:				ashington, D.C.	
Typed or printed name	Jeffi	y W. Smi	th, Reg. No. 3345	5	
Signature	ARRWS	mt		Date Aug 11, 70A	

PTO/SB/17 (12-97)

Approved for use through 09/30/00. OMB 0651-0032 Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control Complete if Known **FEE TRANSMITTAL** Application Number 09/181,738 Filing Date October 28. First Named Inventor Nathan P 2816 Group Art Unit Note: Effective October 1, 1997,
Patent fees are subject to annual revision
JNT OF PAYMENT | \$130.00 Examiner Name M. Wamb TOTAL AMOUNT OF PAYMENT KNOWM Attorney Docket Number METHOD OF PAYMENT (check one) FEE CALCULATION (Continued) RADEMARY The Commissioner is hereby authorized to charge indicated fees and credit any over payments to: 3. ADDITIONAL FEES Deposit Account Number Large Entity Small Entity 15-0660 Fee (\$) Fee (\$) Fee Code Fee Pald 205 105 130 65 Surcharge - late filing fee or oath Deposit Account Name Lathrop & Clark Surcharge - late provisional filing fee or cover sheet 127 227 25 50 Charge the Issue Fee Set in 37 CFR 1.18 at the Mailing of the Notice of Allowance Charge Any Additional Fee 139 130 139 130 Non-English specification Required Under 37 CFR 1.16 and 1.17 147 147 2,520 2,520 For filing a request for reexamination 920\* 112 920 112 Requesting publication of SIR prior to Payment Enclosed: ⊠<sup>Check</sup> Other Requesting publication of SiR after ☐ Money ☐ 113 1,8401 113 1,840 FEE CALCULATION Extension for reply within first month 115 110 215 55 1. FILING FEE 116 380 216 190 Extension for reply within second Large Entity Small Entity 870 217 435 Extension for reply within third mo Extension for reply within fourth Fee Paid Fee Description 680 Fee Code 128 228 925 Extension for reply within fifth month 101 201 Utility filing fee 119 219 150 4 Notice of Appeal 106 Design filing fee 120 150 Filing a brief in support of an appeal 107 207 Plant filing fee 121 Request for oral hearing 108 760 208 Reissue filing fee 138 Petition to Institute a public use Provisional filing fee 214 75 114 150 140 240 55 110 SUBTOTAL (1) 141 1.210 241 605 Petition to revive - unintentional Fee from below 2. CLAIMS 1,210 Utility Issue fee (or reissue) Total Claims -20= X 11 \$0.00 143 243 215 Design Issue fee \$0.00 -3= 144 244 Independent Claims 122 130 Petitions to the Commissioner 122 130 Multiple Dependent Claims \$0.00 123 123 Petitions related to provisional 126 240 126 240 Submission of Information Disclosure Statement Large Entity Small Entity Fee (\$) Recording each patent assignment Fee Fee Description 581 581 40 Filing a submission after fina rejection (37 CFR 1.129(a)) 103 18 203 Claims in excess of 20 760 246 380 For each additional Invention examined (37 CFR 1.129(b)) 78 202 Independent Claims in excess of 3 102 104 260 204 130 Multiple dependent claims Reissue independent claims over 109 209 Other fee (specify) Petition fee under §1.17(I) for IDS 78 39 Reissue claims in excess of 20 and over original patent 210 110 18 Other fee (specify) SUBTOTAL (3) SUBTOTAL (2) \$0.00 \$130.00 Reduced by Basic Fliing Fee Pald SUBMITTED BY Complete (if applicable)

Jeffry W. Smith

Typed or Printed Name

Signature

Reg. Number

11,200

Deposit Account User ID

33455



# UNITED STATES DEPARTMENT OF COMMERCE

Address: COMMISSIONER OF PATENTS AND TRADEMARKS Washington, D.C. 20231

APPL	ICATION NO.	FILING DATE	FIRST NAMED INVENTOR	R A	TTORNEY DOCKET NO.	
	09/181,	738 107287	98 PYLES	N	EPIXING-4	
		% CLARK LLF ENT STREET S			XAMINER IBACH, M	
٠	P.O. BO			ART UNIT 281	PAPER NUMBER	
				DATE MAILED:	10/17/00	
					R	

Please find below and/or attached an Office communication concerning this application or proceeding.

**Commissioner of Patents and Trademarks** 

PTO-90C (Rev. 2/95)

1- File Copy

<u> </u>	Application No. 09/181,738	Applicant(s)	Pyles	
Notice of Allowability	Examiner Margaret War	nbach .	Group Art Unit 2816	
All claims being allowable, PROSECUTION ON THE MERI herewith (or previously mailed), a Notice of Allowance ar mailed in due course.				
☐ This communication is responsive to <u>I.D.S. (8/14/00)</u>				
∑ The allowed claim(s) is/are 12, 13, and 15-45				
☐ The drawings filed on are accept	ptable.			
<ul> <li>□ Acknowledgement is made of a claim for foreign prior</li> <li>□ All □ Some* □ None of the CERTIFIED copie</li> <li>□ received.</li> <li>□ received in Application No. (Series Code/Serial III)</li> <li>□ received in this national stage application from the composition of the certain prior of t</li></ul>	es of the priority docur	ments have		u.
*Certified copies not received:		ls .		
$\hfill \square$ Acknowledgement is made of a claim for domestic pri	ority under 35 U.S.C.	§ 119(e).		
A SHORTENED STATUTORY PERIOD FOR RESPONSE to THREE MONTHS FROM THE "DATE MAILED" of this Off ABANDONMENT of this application. Extensions of time in the Note the attached EXAMINER'S AMENDMENT or NOT that the oath or declaration is deficient. A SUBSTITUTION Applicant MUST submit NEW FORMAL DRAWINGS    because the originally filed drawings were declared including changes required by the Notice of Draftspator to Paper No. 6	fice action. Failure to may be obtained unde FICE OF INFORMAL A TE OATH OR DECLAR by applicant to be interested by applicant to be interested. Part of the person's Patent Drawing correction filed on	timely comp r the provision PPLICATION RATION IS R formal. ng Review, I	oly will result in ons of 37 CFR I, PTO-152, wh EQUIRED. PTO-948, attac	1.136(a). nich discloses hed hereto or
Identifying indicia such as the application number (see drawings. The drawings should be filed as a separate Draftsperson.	37 CFR 1.84(c)) show paper with a transmit	uld be writte tal lettter ad	n on the revers Idressed to the	e side of the Official
$\hfill \square$ Note the attached Examiner's comment regarding REC	UIREMENT FOR THE	DEPOSIT OF	BIOLOGICAL	MATERIAL.
Any response to this letter should include, in the upper rig CODE/SERIAL NUMBER). If applicant has received a Notic and DATE of the NOTICE OF ALLOWANCE should also be	ce of Allowance and Is			
Attachment(s)  Notice of References Cited, PTO-892  Information Disclosure Statement(s), PTO-1449, Pa Notice of Draftsperson's Patent Drawing Review, P Notice of Informal Patent Application, PTO-152 Interview Summary, PTO-413 Examiner's Amendment/Comment	enter and the remaining the second second			Harval
☐ Examiner's Comment Regarding Requirement for Do	eposit of Biological Ma	aterial	1971	
Examiner's Statement of Reasons for Allowance				

Notice of Allowability

U. S. Patent and Trademark Office PTO-37 (Rev. 9-95)

Part of Paper No.



Patent Application

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:

Nathan Pyles

Date:

September 19, 2000

#154

Date Filed:

October 28, 1998

Docket No.:

KNOWMO-2

Serial Number:

09/181,738

Art Unit:

2816

For:

**PEDOMETER** 

Examiner:

M. WAMBACH

# Certificate of Mailing

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Assistant Commissioner for Patents,

Washington, D.C. 20231

+ 1 1

Date

Signature

Jeffry W. Smith, Reg. No.33455

Name of applicant, assignee or Registered Representative

# TRANSMITTAL OF FORMAL DRAWINGS

Attention: Official Draftsman
Assistant Commissioner for Patents

Washington, D.C. 20231

Dear Sir:

Enclosed for filing with respect to the above-referenced application, please find 1 sheet of new formal drawings having (1) figure to be substituted for the drawings presently on file in this application. It is believed that the drawings submitted are in conformance with the requirements set forth in 37 C.F.R. §1.84. These new formal drawings are transmitted in conformance with the requirement for new drawings set out in the Notice of Allowability on this application that

was mailed on June 21, 2000. Applicant believes no new matter has been added by these formal drawings.

It is requested that applicant's undersigned attorney be notified of any further or additional requirements with respect to the enclosed formal drawings.

Respectfully submitted,

Jeffry W. Smith, Reg. No. 33455

Attorney for Applicant Lathrop & Clark LLP

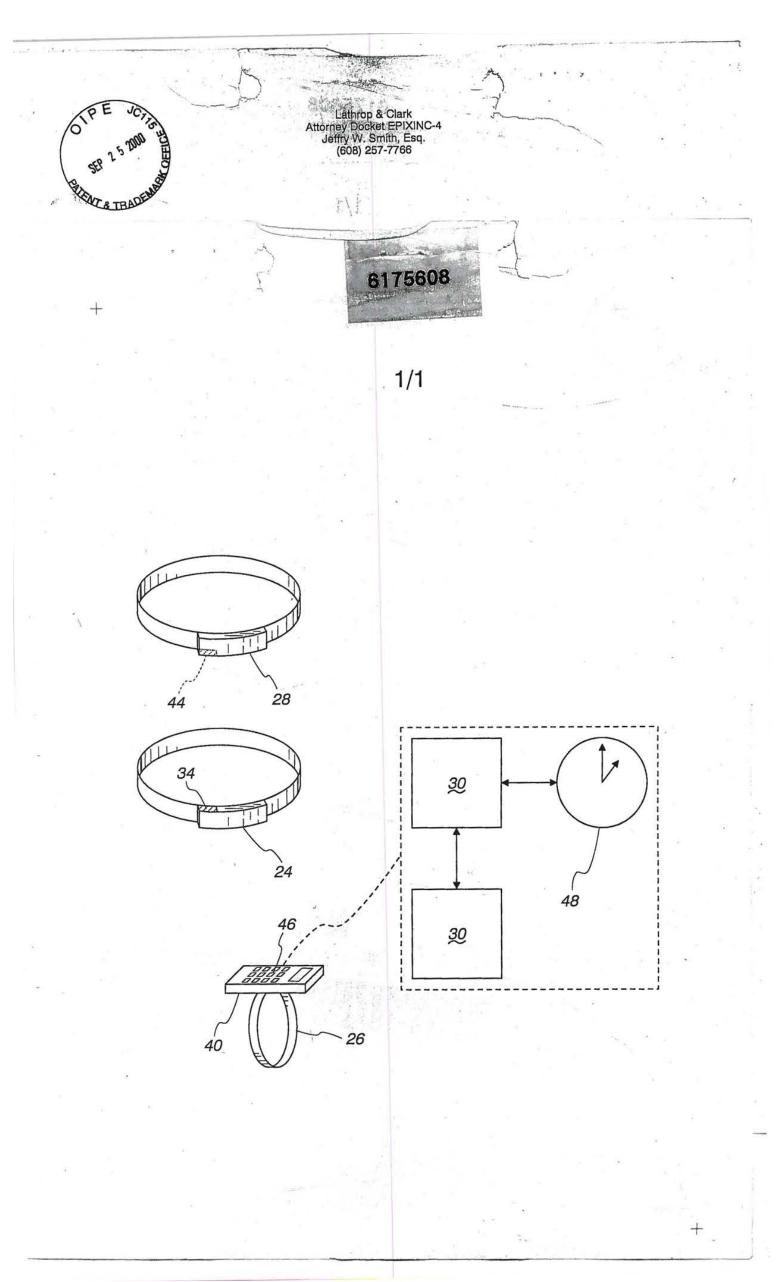
740 Regent Street, Suite 400

P.O. Box 1507

Madison, Wisconsin 53701-1507

(608) 257-7766

PayIssueFee.app/draftsman



			E		
144	28	F			*
1 1					
2		200	V.		
			1.		
		¥			E
100-20					la
3		y .	BS .	ત્રં.	PTO/SB/21 (12-
	Please type a plus sign (+) inside 1		Patent and Trade	k Offi	for use through 9/30/00. OMB 0651-00 ice: U.S. DEPARTMENT OF COMMER
	Under the Paperwork Reduction Accord 1995, number.	no persons are requir	ed to respond to a collection of	Informa	ition unless it displays a valid OMB con
OIPE	iumber.		Application Number	$\neg \tau$	09/181,738
2	TRANSMITT	ΛI	Filing Date	-	
SEP 2 5 2006		AL.		-	October 28, 1998
	FORM	640	First Named Inventor		Nathan Pyles
	AV	A :-W-! 6!!\	Group Art Unit		
RADEMARY	(To be used for all correspondence a	πer initial tiling)	Examiner Name	200	1400
	Total Number of Pages in This Submiss	sion	Attorney Docket Number		KNOWMO-2
					Idvonino, 2
	П	ΙП		П	
	Fee Transmittal Form	Assignment	L. Jiji		After Allowance Communication
-		(For an App	iication)	То	Group
	Fee Attached	Drawing(s)			Tananana Tanana
	_	Drawing(s)		ш	Appeal Communication to Board
	Amendment / Response	П.	5 _ E	Of	
	100 (000000 ± 200000 00000 000 000 000 000 00	Licensing-re	elated Papers		Appeals and Interferences
	П .	Petition Rou	uting Slip (PTO/SB/69)		Appeal Communication to Group
	After Final	And Accom	panying Petition	-	(Appeal Notice, Brief, Reply Brief)
λ.		l — ·			27 27 182 27
	Affidavits/declaration(s)	To Convert	a Provisional Application		Proprietary Information
1					x.
	Extension of Time Request	Power of At	torney, Revocation		Status Letter
		Change of C	Correspondence Address	N	
		П	·		Additional Enclosure(s)
	Π	Terminal Dis	sclaimer	1	(Please identify below):
	Express Abandonment Request				
		Small Entity	Statement		
	-		V.		• PTOL-85B
1	Information Disclosure	Request for	Refund		Transmittal to Official
	Statement	250			Draftsman
	_				1
	Certified Copy of Priority				
	Document(s)	NAMES OF THE OWNER.			
	The same and the s	Remarks			
	Response to Missing Parts/				
	Incomplete Application				
		P 8 6			
=	Response to Missing Parts				
	Under 37 CFR 1.52 or 1.53				,
H			ICANT, ATTORNEY, OR A	GENT	
	Firm Jeff	ry W. Smi	th, Reg. No.	33455	5
	Individual name				1:
	Signature	has 5	H		E 2
}	Date	Ja ome			
	dy	Tenber 19	9,2000		
ſ	- 0		CATE OF MAILING	5	
	I hereby certify that this correspondence	is being deposited	with the United States Pos	tal Sen	vice as
	first class mail in an envelope addressed 20231 on this date:	to: Assistant Com	missioner for Patents, Was	hington	i, D.C.
	Typed or printed name	Toffer "	7 Cmith Da-	NT-	32455
		Logitty W	V. Smith, Reg.	Date	1 1 16 15
2.	Signature (7/17)				

# PART B-ISSUE FEE TRANSMITTAL

unplete and mail this form, together with cable fees, to

Assistant Commissioner for Patents Washington, D.C. 20231



MAILING INSTRUCTIONS: This form should be used for transmitting the ISSÜE FEE. Blocks 1 through 4 should be completed where appropriate. All further correspondence including the Issue Fee Receipt, the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Legibly mark-up with any corrections or use Block 1):

020455 MMC1/0621 LATHROP & CLARK LLP 740 REGENT STREET SUITE 400 P.O. BOX 1507 MADISON WI 53701-1507 Note: The certificate of malling below can only be used for domestic mailings of the Issue Fee Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing.

# **Certificate of Mailing**

I hereby certify that this Issue Fee Transmittal is being deposited with the Uritled States Postal Service with sufficient postage for first class mail.in an envelope addressed to the Box Issue Fee address above on the date indicated below.

	MADISON WI	53701-1507	301 1 835		Tami A. Jansen		(Depositor's name)	
					Jamix.	Jansen	J (Signature)	
		200	300		September 19	, 2000	(Date)	
4 17	APPLICATION NO.	FILING DATE	TOTALCLAIM	S	EXAMINER AND GROUP AF	RT UNIŢ	DATE MAILED	
	09/181.738	10/28/98	033	WAMBACH.	М	2816	06/21/00	
	Named PYLES.		35 L	JSC 154(b)	term ext. =	0 Dave	s., '	

TITLE OF PEDOMETER

ATTY	'S DOCKET NO.	CLASS-SUBCLASS	BATCH NO.	APPLN, TYPE	SMALL ENTITY	FEE DUE	DATE DUE	
2	EPIXINC-4	377-024.	200 039	UTILIT	Y YES	<b>\$605.00</b>	09/21/00	
Use of PT0  Change PTO/SB/12	O form(s) and Customer N e of correspondence addre 22) attached.	or Indication of "Fee Address" umber are recommended, but ss (or Change of Corresponde Address" Indication form PTO	(1) the names of u attorneys or agen the name of a s member a registe and the names of	inting on the patent front page, list arms of up to 3 registered patent or or agents OR, alternatively, (2) e of a single firm (having as a a registered attorney or agent) names of up to 2 registered patent or agents. If no name is listed, no libe printed.				
inclusion of the PTO of filing an as (A) NAME	NOTE: Unless an assigned of assignee data is only apports being submitted under assignment.  OF ASSIGNEE Knoolers: (CITY & STATE Of the appropriate assignment assignment)	EDATA TO BE PRINTED ON a Is identified below, no assignment reparate cover. Completion wMo, LLC d/b/a R COUNTRY) Knowle Lake Mills, Wis ee category indicated below (worther private group entity	the patent. // submitted to a substitute for 4b.	KI legue Foo				
		ND TRADEMARKS IS reques	ted to apply the Issu	e Fee to the applicat	ion identified above.			
or agent; or the Trademark O Burden Hot depending to complete Office, Was	sub Fee will not be acceptive assignee or other party office.  Statement: This form on the needs of the Indivi- this form should be ser hington, D.C. 20231. DO	ted from anyone other than the in interest as shown by the red is estimated to take 0.2 hou dual case. Any comments of the Chief Information CO NOT SEND FEES OR COS FORM TO: Box Issue Fee	e applicant; a registe cords of the Patent a rs to complete. The in the amount of tir officer, Patent and MPLETED FORM	red attorney and	09/26/2000 MWOLDER 01 FC:242 02 FC:561	2 00000102 091	.81738 605.00 OP 30.00 OP	

# TRANSMIT THIS FORM WITH FEE

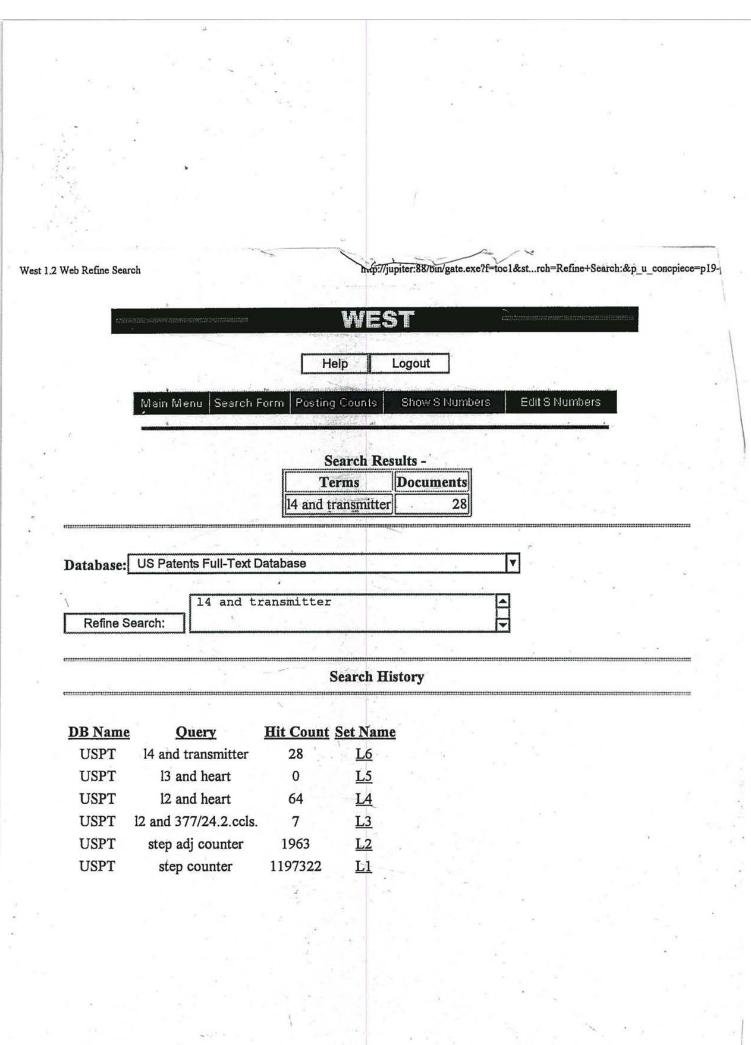
PTOL-85B (REV.10-96) Approved for use through 06/30/99. OMB 0651-0033

of information unless it displays a valid OMB control number.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection

Patents, Washington D.C. 20231

Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE



1/21/00 4:20 PM

							Application or Docket Number					
	PATENT A	APPLICATION Effe		DETERMI ober 1, 1997		ION RECO	RD	09/18	173	38		
		CLAIMS A	S FILED	- PART I	(Col	umn 2)	SMALL	ENTITY	OR		R THAN ENTITY	
FOR		NUMBI	NUMBER FILED NUMB		MBER	EXTRA	RATE	FEE		RATE	FEE	
BASI	C FEE		18 4.					395.00	OR	ME 4.50	790.0	
TOTAL CLAIMS		1	15 min	inus 20 = * 25			x\$11=		OR	x\$22=	550	
INDEPENDENT CLAIMS		AIMS Z	5 minus 3 = * 2		2	artery of	x41=		OR	x82=	164	
MULTIPLE DEPENDENT CLAIM PRESENT							+135=		OR	+270=	707	
If th	ne difference in co	olumn 1 is less than	zero, enter "O	" in column 2	1 1		TOTAL		OR	TOTAL	150	
		(Column 1)	AMENDE	D - PART II (Column	2)	(Column 3)	SMALL	ENTITY	OR		R THAN	
AIMENDINENI A	A	CLAIMS REMAINING AFTER AMENDMENT		HIGHES NUMBE PREVIOU PAID FO	R	PRESENT EXTRA	RATE	ADDI- TIONAL FEE		RATE	ADDI TIONA FEE	
	Total	. 36	Minus	43	5	=	x\$11=	1	OR	x\$22=	_	
	Independent	. 8	Minus	- 3		= 3	x41=		OR	x82=	234	
ζ.	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM					+135=		OR	+270=			
		(Column 1)		(Column	2)	(Column 3)	TOTAL ADDIT. FEE		OR	TOTAL ADDIT. FEE	234	
DIVIEIVI D		CLAIMS REMAINING AFTER AMENDMENT		HIGHES NUMBE PREVIOU PAID FO	R	PRESENT EXTRA	RATE	ADDI- TIONAL FEE		RATE	ADD! TION/ FEE	
	Total	•	Minus	••	1	-	x\$11=		OR	x\$22=	177	
AMENT	Independent	•	Minus	***	1	_	x41=		OR	x82=		
•	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM					+135=		OR	+270=	×		
		(Column 1)		(Column	2)	(Column 3)	TOTAL ADDIT. FEE		OR	TOTAL ADDIT. FEE		
AMENDMENIC		CLAIMS REMAINING AFTER AMENDMENT		HIGHES NUMBE PREVIOU PAID FO	ER JSLY	PRESENT EXTRA	RATE	ADDI- TIONAL FEE		RATE	ADD TION/ FEE	
	Total		Minus	**	1	-	x\$11=	0	OR	x\$22=		
	Independent	•	Minus	*** 7.77		-	x41=		OR	x82=		
¥	FIRST PRES	SENTATION OF	MULTIPL	E DEPENDE	NTCL	AIM	+135=		OR	+270=		
* If !	he "Highest Nur	mn 1 is less than the mber Previously Pa mber Previously Pa	Id For IN TH	IIS SPACE IS IS	ee than	20 enter "20 "	TOTAL ADDIT, FEE	4	OR	TOTAL ADDIT. FEE		