Assig Dire a P.O.	Stop: gnments Recordation Services RECOF ector of the U.S. Patent and Trademark Office b. Box 1450 xandria, VA 22313-1450	EDATION FORM COVI PATENTS ONLY	ER SHEET U.S. DEPARTMENT O Patent and ' Attorney Docket No.	Trademark Office			
	ase record the attached document.	achments, and documents	2				
1.	A. Name of conveying parties: Yoshitaka SASAKI Doug CRANDELL	2.	A. Name and address of receiving party HEADWAY TECHNOLO 678 S. HILLVIEW DR. MILPITAS, CA 95035 U	OGIES, INC.			
	B. Additional name(s) of conveying part	y(ies) attached?					
3.	A. Nature of conveyance:	_	B. Additional name(s) & address(cs) a				
	Assignment	гдет					
	Security Agreement Cha	ange of Name					
	Other						
	B. Execution Date: All) February 6, 2	2003	_				
4.	A. If this document is being filed togeth	ner with anew applicatio	n, the execution date of the application is:				
	B. Patent Application No. 10/354,009		C. Patent No.(s)				
	Add	itional numbers attached	tached? ☐ Yes ⊠ No				
5.	Name and address of party to whom corres concerning document should be mailed:	spondence 6.	Total number of applications and patent	s involved: 1			
	Name: James A. Oliff	7.	Please charge Deposit Account total fee (37 CFR 3.41) in the am	No. 15-0461 the ount of \$40.00.			
	Address: OLIFF & BERRIDGE, PLC P.O. Box 19928 Alexandria, VA 22320 Phone Number: 703-836-640 Fax Number: 703-836-2787		Credit any overpayment or charge any u deposit account number 15-0461.	nderpayment to			
9.	Statement and signature. To the best of my knowledge and belief, to the original document. James A. Cliff Registration No. 27,075 Joel S. Amstrong Registration No. 36,43	<u>-</u>	is true and correct and any attached cop Date: <u>June 16, 2003</u>	y is a true copy of			

PATENT REEL: 013737; FRAME: 0228

	Δ	ss	$\mathbf{T}G$	NI	MΪ	EΝ	П
--	---	----	---------------	----	----	----	---

				ASSIGNMEN				:	
		(1)		ita <u>ka</u> SASAK					
1-8)	Insert	(2)	<u>Doug</u>	CRANDELL_	(6)		.	<u> </u>	
,	Name(s) of Inventor(s)	(3)		CKANDEHU	(7)			<u> </u>	·
	••	(4)			(8)				
		to eac	In consid ch of the u	leration of the sum of on indersigned, each unders	a daller (%) 100	n and other g	osuita para poc	ile consincia	MON PAIG
(9)	Insert Name of Assigned	(9)	Heād	lway Technol	ogies,	lnc.			
(10)	Insert Address of Assignce	(10)	<u>678</u>	S. Hillview	Dr. Mi	lpitas	, CA <u>95</u>	<u>0</u> 35 U <u>.</u>	S.A.
		the ex inver	ntire right ation, and sional, con ues and re	signated as the Assignee, title and interest for the in all applications for patinuation, substitute, and examination certificates	e United States itent including I reissue applic that may be gr	of America a any and all p ation(s), and anted on the	s deffice in 33 rovisional, nor all Letters Pate invention knov	n-provisional ent, extensio vn as	l, ons,
(11)	Insert	(11)	THI	N-FILM MAGNE	TIC HEA	<u>D</u> AND	METHOD	OF MAD	<u>NUFACT</u> URIN
	Identification such as Title, Case		SAME	<u></u>				<u> </u>	
	Number, or Foreign Application Number	(Atte	omey Doc	ket No. <u>114847</u>			<u></u>		>
		for v	which the ven date h	undersigned has (have) e erewith or	xecuted an app	olication for p	atent in the Ut	nted States (of America
(12)	Insert Date of Signing of Application	(12	on _	February 6, 2003				<u> </u>	
(13)	Alternative	(13	i) U.Ş. aj	pplication Serial Numbe	r <u>10/354</u> ,	2 09 5		<u> </u>	
	Identification for filed applications	file	d Ja	nuary 30, 2003				<u> </u>	
any app the Ass claims reexam resulting entire it assigns	tions and patents as the Ass 2) Each undersigned agre- plication or continuation or a ignee in every way possible 3) Each undersigned agre- or provisions of the Internat 4) Each undersigned agre- tination a grant of a valid Un- 5) Each undersigned auth- ing from said application(s) the interest herein assigned, and ment is binding on him and the interest herein assigned here- ication that may be necessar- ation of this document.	es to ex division of the control of	ecute all parties and records all parties all parties all parties and requestid Assignation and records and record	napers necessary in comportant patent or reissue a lence and going forward papers and documents and for Protection of Indust affirmative acts which not to the Assignee. The Commissioner of the en as Assignee of the en assigns and legal reposed of the second of the sec	pplication bases with such inter diperform any rial Property or lay be necessar Patents to issue tire interest, ar resentatives.	ea thereout, for ference, act which me r similar agre- y to obtain, n any and all l ad covenants; ements in cor	by be necessary ements. naintain or con Letters Patents that he has full flict herewith,	of the Unite	ion with sue or ed States evey the that this
	In witness whereof, exec	uted by	the unde	ersigned on the date(s)	pposite the u	ndersigned n	ame(s).	/ ·	
Date				Inventor Signature	<u> Dost</u>	utaka	Jasuf	22	(SEAL)
Date	FEBRUARY 6, 2	90 3	W. T.	Inventor Signature	Tyl	<u> 4</u>	Culle	<u>~</u>	(SEAL)
Date				Inventor Signature	<u> </u>				(SEAL)
Date				Inventor Signature					(SEAL)
Date				Inventor Signature		_	<u> </u>		
Date				Inventor Signature		_		j	(SEAL)
Date				Inventor Signature				-	(SEAL)
Date				Inventor Signature					(SEAL)
If neit	This assignment should place, then it should be signed	preferab d before	oly be sign at least to	wo witnesses who also জ	grinere:)	the U.S.A. (1	o) a U.S. Consi	il if outside	the U.S.A.
Date	2-6-03 Februara 6			Witness	<u> </u>	<u> </u>	- 4108-		
	Februar 6			Witness	(2)	(المسيح)	MORI.	<u>> M.≥⊗</u> ,	VE-6

PATENT REEL: 013737, FRAME: 0229

RECORDED: 06/16/2003