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

05-26-1999

ENT OF COMMERCE t and Trademark Office

5	5.24.99 MAY 2 4 1999	101046937 ± No. 102939					
	To the Assistant Commissioner for Patents: Please r	record the attached original document or copy thereof.					
1.	 A. Name of conveying party(ies): 1 Hikoharu AOKI 2 Takaaki USHIKI 3 Hirochika NAKAJIMA 	Name and address of receiving party(ies): BROTHER KOGYO KABUSHIKI KAISHA 15-1 NAESHIRO-CHO, MIZUHO-KU NAGOYA-SHI, AICHI-KEN 467-8561, JAPAN					
	B. Additional name(s) of conveying party(ies) attached? ☐ Yes ☑ No	2 HIROCHIKA NAKAJIMA 1-6-16 HINATAOKA, HIRASUKA-SHI KANAGAWA-KEN 254-0905, JAPAN					
3.	A. Nature of conveyance:	B. Additional name(s) & address(es) attached? ☐ Yes ☒ No					
	☐ Security Agreement ☐ Change of Name						
	Other						
	B. Execution Date: (1) May 10, 1999; (2) April 30, 1999; (3) May 6, 1999						
4.	A. If this document is being filed together with a new application, the execution date of the application is:						
	B. Patent Application No. <u>09/263.631</u>	C. Patent No.(s)					
	Additional numbers att	tached? ☐ Yes ⊠ No					
5.	Name and address of party to whom correspondence concerning document should be mailed:	6. Total number of applications and patents involved: 1					
	Name: James A. Oliff	7. A. Total fee (37 CFR 3.41)\$ 40.00					
		B. Enclosed (Check No. 100524)					
	Address: OLIFF & BERRIDGE, PLC P.O. Box 19928 Alexandria, VA 22320	Credit any overpayment or charge any underpayment to deposit account number 15-0461.					
REAL	I 00000051 09263631						
	40.00 DP						
9.	Statement and signature. To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.						
	James A. Oliff Registration No. 27,075 Thomas J. Pardini Registration No. 30,411	Date: <u>May 24, 1999</u>					
Total number of pages including cover sheet, attachments, and document: 2							

PATENT REEL: 009964 FRAME: 0871

ASSIGNMENT

	(1)	Hikohar	u AOKI		(5)			
Insert	(2)	Takaaki	USHIKI		(6)			
Name(s) of Inventor(s)	(3)	Hirochil	ka NAKAJIMA		(7)			
	(4)				(6)			
		In con	nsideration of the sum of o	ne dollar (\$1.00)) and othe	r good and val	able consider	ations paid to each
Insert Name of Assignee	(9)	BROTI	HER KOGYO KABUSI	HIKI KAISHA	& Hiroc	hika NAKAJ	IMA	
insert Address of Assignee	(10)	15-1 1-6-1	Naeshiro-cho, Mizuho 6 Hinataoka, Hiratsuk	–ku, Nagoya- ka−shi, Kana	−shi, Ai ıgawa−kı	chi-ken 46 en 254-090	57−8561, Ja 05, Japan	pan
		as defin	ed in 35 U.S.C. §100, ir nal, non-provisional, divisi	n the invention, onal, continuation	and in a on, substi	ll applications tute, and reiss	for patent incue application	luding any and all (s), and all
11) Insert Identification (1 of Invention such as Title, Case Number, or Foreign Application Number		SUE	BSTRATE WITH OPTICA	L WAVEGUIDE	AND ME	THOD OF MAI	KING THE SAI	ME
		(Attorney Docket No.						
		for which	n the undersigned has (ha	ve) executed an	application	n for patent in	the United Sta	ites of America
Insert Date of Signing of Application	(12)	on	May 10,1999,	April 30	,1999	, May 6,1	999	
Alternative	(13)	U.S. apı	plication Serial Number	09/263,631				
Identification for		filed	March 5, 1999					
	Insert Name of Assignee Insert Address of Assignee Insert Identification of Invention such as Title, Case Number, or Foreign Application Numbe Insert Date of Signing of Application	Insert (2) Name(s) of Inventor(s) (3) (4) Insert Name of Assignee (9) Insert Address of Assignee (10) Insert Identification of Invention such as Title, Case Number, or Foreign Application Number Insert Date of Signing of Application (12)	Insert (2) Takaak Name(s) of Inventor(s) (3) Hirochil (4) In correct the unit of the uni	Insert (2) Takaaki USHIKI Name(s) of Inventor(s) (3) Hirochika NAKAJIMA (4) In consideration of the sum of o of the undersigned, the undersigned Insert Name of Assignee Insert Address of Assignee (10) In consideration of the sum of o of the undersigned, the undersigned Insert Address of Assignee (10) Insert Address (10) Insert Address (10) Insert Gesignated as the As as defined in 35 U.S.C. §100, in provisional, non-provisional, divisional, non-provisional, invention such as Title, Case Number, or Foreign Application Number Insert Date of Signing of (12) on May 10,1999, Application	Insert (2) Takaaki USHIKI Name(s) of Inventor(s) (3) Hirochika NAKAJIMA (4) In consideration of the sum of one dollar (\$1.00 of the undersigned, the undersigned agree(s) to a BROTHER KOGYO KABUSHIKI KAISHA Insert Address of Assignee (10) 15-1 Naeshiro-cho, Mizuho-ku, Nagoya-1-6-16 Hinataoka, Hiratsuka-shi, Kana (hereinafter designated as the Assignee) the entire as defined in 35 U.S.C. §100, in the invention, provisional, non-provisional, divisional, continuati Patent, extensions, reissues and reexamination of Invention such as Title, Case Number, or Foreign Application Number (Attorney Docket No. for which the undersigned has (have) executed and Insert Date of Signing of (12) on May 10,1999, April 30 Application	Insert (2) Takaaki USHIKI (6) Name(s) of Inventor(s) (3) Hirochika NAKAJIMA (7) (4) (8) In consideration of the sum of one dollar (\$1.00) and othe of the undersigned, the undersigned agree(s) to assign, and the of the undersigned agree(s) to assign, and the undersigned agree(s) to assign, and the of the undersigned agree(s) to assign, and the of the undersigned agree(s) to assign, and the undersigned agree(s) to assign, and the of the undersigned agree(s) to assign, and the undersigned agree a	Insert (2) Takaaki USHIKI (6) Name(s) of Inventor(s) (3) Hirochika NAKAJIMA (7) (4) (8) In consideration of the sum of one dollar (\$1.00) and other good and valid of the undersigned, the undersigned agree(s) to assign, and hereby does a linsert Name of Assignee (9) BROTHER KOGYO KABUSHIKI KAISHA & Hirochika NAKAJIMA (10) Insert Address of Assignee (10) 15-1 Naeshiro-cho, Mizuho-ku, Nagoya-shi, Aichi-ken 46 1-6-16 Hinataoka, Hiratsuka-shi, Kanagawa-ken 254-090 (hereinafter designated as the Assignee) the entire right, title and interest as defined in 35 U.S.C. \$100, in the invention, and in all applications provisional, non-provisional, divisional, continuation, substitute, and reiss Patent, extensions, reissues and reexamination certificates that may be grain to finvention such as Title, Case Number, or Foreign Application Number (Attorney Docket No. for which the undersigned has (have) executed an application for patent in Insert Date of Signing of (12) on May 10,1999, April 30,1999, May 6,1 Application	Insert (2) Takaaki USHIKI (6) Name(s) of Inventor(s) (3) Hirochika NAKAJIMA (7) (4) (8) (8) In consideration of the sum of one dollar (\$1.00) and other good and valuable consider of the undersigned, the undersigned agree(s) to assign, and hereby does assign, transfer assignee (9) BROTHER KOGYO KABUSHIKI KAISHA & Hirochika NAKAJIMA (15) 15-1 Naeshiro-cho, 1-6-16 Hirnataoka, Hiratsuka-shi, Kanagawa-ken 254-0905, Japan (hereinafter designated as the Assignee) the entire right, title and interest for the United as defined in 35 U.S.C. \$100, in the invention, and in all applications for patent inc provisional, non-provisional, divisional, continuation, substitute, and reissue application Patent, extensions, reissues and reexamination certificates that may be granted on the integration of Invention auch as Title, Case Number, or Foreign Application Number (Attorney Docket No. for which the undersigned has (have) executed an application for patent in the United Statistics of the United

- applications and patents as the Assignees may deem necessary.
- 2) The undersigned agree(s) to execute all papers necessary in connection with any interference which may be declared concerning any application or continuation or division thereof, or any patent or reissue application based thereon, for the invention, and to cooperate with the Assignee in every way possible in obtaining evidence and going forward with such interference.
- 3) The undersigned agree(s) to execute all papers and documents and perform any act which may be necessary in connection with claims or provisions of the International Convention for Protection of Industrial Property or similar agreements.
- 4) The undersigned agree(s) to perform all affirmative acts which may be necessary to obtain, maintain or confirm by reissue or reexamination a grant of a valid United States patent to the Assignee.
- 5) The undersigned hereby authorize(s) and request(s) the Commissioner of Patents to issue any and all Letters Patents of the United States resulting from said application(s) to the said Assignee, as Assignee of the entire interest, and hereby covenants that he has (they have) full right to convey the entire interest herein assigned, and that he has (they have) not executed, and will not execute, any agreements in conflict herewith.
- 6) The undersigned hereby grant(s) the firm of OLIFF & BERRIDGE the power to insert on this assignment any further identification which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this

In witness whereof, executed by the undersigned on the date(s) opposite the undersigned name(s).

RECORDED: 05/24/1999

Date	may 10, 1999	Name of Inventor	Nihoham	aohi	(SEAL)
Date	April 30, 1999		Takaaki.	_	(SEAL)
Date	May 6, 1999	Name of Inventor	Circlike_	Nakajine-	_ (SEAL)
Date				i ∕	(SEAL)
Date		Name of Inventor			(SEAL)
Date		Name of Inventor			_ (SEAL)
Date		Name of Inventor		***	(SEAL)
Date		Name of Inventor			(SEAL)

PATENT REEL: 009964 FRAME: 0872