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09-23-1999

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FORM PTO-1595  
(Rev. 8-93)  
OMB No. 0651-0011 (exp. 4/94)

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U.S. DEPARTMENT OF COMMERCE  
Patent and Trademark Office

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To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof.

1. Name of conveying party(ies):

Thornycroft, Giles & Co., Inc.

MD 9-20-99

Additional name(s) of conveying party(ies) attached? ☐ Yes ☒ No

3. Nature of conveyance:

☐ Assignment

☐ Merger

☒ Security Agreement

☐ Change of Name

☐ Other

Execution Date: September 9, 1999

2. Name and address of receiving party(ies)

Name: Mellon Bank

Internal Address: Mellon Bank Center

Street Address: 1735 Market Street

City: Philadelphia State: PA ZIP: 19103

Additional name(s) & address(es) attached? ☐ Yes ☒ No

4. Application number(s) or patent number(s):

If this document is being filed together with a new application, the execution date of the application is: \_\_\_\_\_

A. Patent Application No.(s)

510628/92  
92-700812  
92-702962

P921423  
921601

B. Patent No.(s)

5,080,032  
5,231,946  
8091254.4

5,129,343  
5,832,856  
2793364

Additional numbers attached? ☐ Yes ☒ No

5. Name and address of party to whom correspondence concerning document should be mailed:

Name: Ann Marie Bruski, Paralegal

Internal Address: c/o Duane, Morris & Heckscher  
LLP

Street Address: One Liberty Place  
1650 Market Street

City: Phila. State: PA ZIP: 19103

6. Total number of applications and patents involved:

11

7. Total fee (37 CFR 3.41).....\$ 440.00

☒ Enclosed

☐ Authorized to be charged to deposit account

8. Deposit account number:

(Attach duplicate copy of this page if paying by deposit account)

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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.

Name of Person Signing

Ann Marie Bruski, Paralegal

Signature

September 17, 1999

Date

Total number of pages including cover sheet, attachments, and document:

14

Mail documents to be recorded with required cover sheet information to:  
Commissioner of Patents & Trademarks, Box Assignments  
Washington, D.C. 20231

PATENT  
REEL: 010437 FRAME: 0469

## PATENT SECURITY AGREEMENT

This PATENT SECURITY AGREEMENT ("Agreement") is made and entered into as of the 9th day of September, 1999 between THORNYCROFT, GILES & CO., INC., a Delaware corporation (the "Assignor"), and MELLON BANK, N.A., a national banking association having a mailing address at Mellon Bank Center, Philadelphia, PA 19103 (the "Assignee").

### BACKGROUND

A. In order to induce the Assignee to make loans to FastShip, Inc. ("FastShip") pursuant to a certain Loan Agreement dated September 9, 1999 between FastShip and the Assignee (the "Loan Agreement"), Assignor has agreed to assign to the Assignee a security interest in certain patent rights, as herein provided.

B. Any term used but not defined herein shall have the meaning given to such term in the Loan Agreement.

NOW THEREFORE, in consideration of the premises, and of the mutual covenants of the parties hereto, and intending to be legally bound hereby, it is hereby agreed as follows:

1. Security Interest in Patents. To secure the complete and timely payment and satisfaction of all amounts of principal, interest, fees and other sums payable by FastShip to the Bank with respect to the Loans pursuant to the Loan Agreement and the other Loan Documents ("Obligations"), the Assignor hereby grants, assigns and conveys to the Assignee a security interest in and to all patent applications and patents of the Assignor, all of which are listed in Schedule A hereto (collectively called the "Patents"), including without limitation, all rights owned by Assignor corresponding thereto throughout the world and all reissues, divisions, continuations, renewals, extensions and continuations-in-part and all proceeds thereof.

2. Warranties and Representations. The Assignor covenants and warrants that:

(a) The Patents are subsisting and have not been adjudged invalid or unenforceable, in whole or in part;

(b) To the best of the Assignor's knowledge, each of the Patents is valid and enforceable;

(c) The Assignor is the sole and exclusive owner of the entire and unencumbered right, title and interest in and to each of the Patents, free and clear of any liens, charges and encumbrances, subject to the grant of a security interest to the holders of certain convertible notes listed on Schedule B attached hereto and other persons or entities who may provide financing to the Assignor in the future limited in amount as provided in Schedule B (such noteholders and other providers of debt financing being hereinafter referred to as "Other

Lenders"). The security interest granted herein to the Bank shall be shared pari passu with the security interest granted to the Other Lenders.

(d) The Assignor has the unqualified right to enter into this Agreement and perform its terms; and

(e) To the best of the Assignor's knowledge, there are no infringement actions filed or threatened alleging that the Patents or the use thereof infringes any patents or other rights held by third parties, and the Assignor shall, in any event, indemnify and hold the Assignee harmless from all losses, damages, costs and expenses, including legal costs and counsel fees, incurred by the Assignee as the direct or indirect result of any action, claim or demand, whether groundless or otherwise, alleging any such infringement.

3. Right to Benefits. If, before the Obligations shall have been satisfied in full, the Assignor shall obtain rights to any patentable inventions, or become entitled to the benefit of any patent application or patent for any reissue, division, continuation, renewal, extension, or continuation-in-part of any Patent or any improvement on any Patent, the provisions of paragraph 1 shall automatically apply thereto and the Assignor shall give to the Assignee prompt written notice thereof.

4. Future Patents. The Assignor authorizes the Assignee to modify this Agreement by amending Schedule A to include any future patents and patent applications which are Patents under paragraph 1 or paragraph 3 hereof.

5. Events of Default. The term "Event of Default", as used herein, shall mean: (a) any Event of Default under this Agreement or the Loan Agreement; and (b) any violation by the Assignor of any representation, warranty or covenant contained in this Agreement and any modification or amendment hereof which is not waived or cured and remedied within fifteen (15) calendar days after notice thereof to the Assignor.

6. Assignor's Right to Use Patents. Unless and until an Event of Default shall occur and be continuing, the Assignor shall retain the legal and equitable title to the Patents and shall have the right to use the Patents in the ordinary course of its business but shall not be permitted to sell, assign, transfer or otherwise encumber the Patents or any part thereof; provided, however, that nothing herein contained shall prohibit the Assignor from failing to renew or otherwise abandoning any item included within the Patents if, in the Assignor's good judgment, the retention of such item is not material to the proper conduct of its business, provided, however, that Assignor shall give the Assignee ten (10) days' prior written notice of any abandonment or failure to renew of any item included within the Patents.

7. Assignee's Rights As Secured Party. If any Event of Default shall have occurred and be continuing, the Assignee shall have, in addition to all other rights and remedies given it by this Agreement and the Loan Agreement, those allowed by law and the rights and remedies of a

secured party under the Uniform Commercial Code as enacted in any jurisdiction in which the Patents may be located and, without demand of performance and without other notice (except as set forth next below) or demand whatsoever to the Assignor, all of which are hereby expressly waived, and without advertisement, sell at public or private sale or otherwise realize upon, in Philadelphia, Pennsylvania or elsewhere, the whole or from time to time any part of the Patents, or any interest which the Assignor may have therein, and after deducting from the proceeds of sale or other disposition of the Patents all expenses (including all reasonable expenses for brokers' fees and legal services), shall apply the residue of such proceeds toward the payment of the Obligations. Notice of any sale or other disposition of the Patents shall be given to the Assignor at least five (5) calendar days before the time of any intended public or private sale or other disposition of the Patents is to be made, which the Assignor hereby agrees shall be reasonable notice of such sale or other disposition. At any such sale or other disposition, any holder of any Note referred to in the Loan Agreement (including renewals or substitutions therefor) or the Assignee may, to the extent permissible under applicable law, purchase the whole or any part of the Patents sold, free from any right of redemption on the part of Assignor, which right is hereby waived and released.

8. Power of Attorney. If any Event of Default shall have occurred and be continuing, the Assignor hereby authorizes and empowers the Assignee to make, constitute and appoint any officer or agent of the Assignee as the Assignee may select in its exclusive discretion, as the Assignor's true and lawful attorney-in-fact, with the power to endorse the Assignor's name on all applications, documents, papers and instruments necessary for the Assignee to use and sell the invention disclosed and claimed in the Patents, or to grant or issue any exclusive or non-exclusive license under the Patents to any third person, or necessary for the Assignee to assign, pledge, convey or otherwise transfer title in or dispose of the Patents to any third person. The Assignor hereby ratifies all that such attorney shall lawfully do or cause to be done by virtue hereof. This power of attorney shall be irrevocable for the life of this Agreement.

9. Termination. At such time as the Assignor shall completely satisfy all of the Obligations and all other liabilities of the Assignor to the Assignee, the Assignee shall execute and deliver to the Assignor all deeds, assignments and other instruments as may be necessary or proper to re-vest in the Assignor the full unencumbered title to the Patents, subject to any disposition thereof which may have been made by the Assignee pursuant hereto.

10. Fees and Expenses of Assignee. If an Event of Default shall have occurred and be continuing, any and all fees, costs and expenses, of whatever kind or nature, including reasonable attorney's fees and legal expenses, incurred by the Assignee in connection with the payment or discharge of any taxes, counsel fees, maintenance fees, encumbrances or otherwise protecting, maintaining, preserving the Patents, or in defending or prosecuting any actions or proceedings arising out of or related to the Patents, shall be borne and paid by the Assignor on demand by the Assignee, and until so paid shall be added to the principal amount of the Obligations and shall bear interest at the highest rate prescribed in the Loan Agreement.

11. Protection of Patents.

(a) The Assignor shall take all actions reasonably necessary to protect and defend the Patents and shall institute such proceedings to enforce the Patents and any licenses thereunder as it, in its reasonable business judgment, deems appropriate. The Assignee shall, upon the reasonable request of the Assignor, do any and all lawful acts and execute any and all proper documents in aid of such protection, defense and enforcement, and the Assignor shall promptly, upon demand, reimburse and indemnify the Assignee for all costs and expenses incurred by the Assignee in connection therewith.

(b) If an Event of Default shall have occurred and be continuing, the Assignee shall have the right but shall in no way be obligated to bring suit in its own name to enforce the Patents and any license thereunder, in which event the Assignor shall at the request of the Assignee do any and all lawful acts and execute any and all proper documents required by the Assignee in aid of such enforcement, and the Assignor shall promptly, upon demand, reimburse and indemnify the Assignee for all costs and expenses incurred by the Assignee in the exercise of its rights under this paragraph 11.

12. No Waiver. No course of dealing between the Assignor and the Assignee nor any failure to exercise, nor any delay in exercising, on the part of the Assignee, any right, power or privilege hereunder or under the Loan Agreement shall operate as a waiver thereof; nor shall any single or partial exercise of any right, power or privilege hereunder or thereunder preclude any other or further exercise or the exercise of any other right, power or privilege.

13. Cumulative Rights. All of the Assignee's rights and remedies with respect to the Patents, whether established hereby or by the Loan Agreement, or by any other agreements or by law shall be cumulative and may be exercised singularly or concurrently.

14. Severability. The provisions of this Agreement are severable, and if any clause or provision shall be held invalid or unenforceable in whole or in part in any jurisdiction, then such invalidity or unenforceability shall affect only such clause or provision, or part thereof, in such jurisdiction, and shall not in any manner affect such clause or provision in any other jurisdiction, or any other clause or provision of this Agreement in any jurisdiction.

15. Amendment. This Agreement is subject to modification only by a writing signed by the parties, except as provided in paragraph 4.

16. Successors and Assigns. The benefits and burdens of this Agreement shall inure to the benefit of and be binding upon the respective successors and permitted assigns of the parties.

17. Governing Law. The validity and interpretation of this Agreement and the rights and obligations of the parties shall be governed by the laws of the Commonwealth of Pennsylvania.

18. Judicial Proceedings. Each party to this Agreement agrees that any suit, action, or proceeding, whether claim or counterclaim, brought or instituted by any party hereto or any successor or assign of any party, on or with respect to this Agreement or the dealings of the parties with respect hereto, shall be tried only by a court and not by a jury. EACH PARTY HEREBY KNOWINGLY, VOLUNTARILY AND INTENTIONALLY WAIVES ANY RIGHT TO A TRIAL BY JURY IN ANY SUCH SUIT, ACTION OR PROCEEDING. Further, the Assignor waives any right it may have to claim or recover, in any such suit, action or proceeding, any special, exemplary, punitive or consequential damages or any damages other than, or in addition to, actual damages. THE ASSIGNOR ACKNOWLEDGES AND AGREES THAT THIS PARAGRAPH IS A SPECIFIC AND MATERIAL ASPECT OF THIS AGREEMENT AND THAT THE ASSIGNEE WOULD NOT EXTEND CREDIT TO THE ASSIGNOR IF THE WAIVERS SET FORTH IN THIS PARAGRAPH WERE NOT A PART OF THIS AGREEMENT.

WITNESS the execution hereof under seal as of the day and year first above written.

ATTEST:

Kathy Ann Cl

THORNYCROFT, GILES & CO., INC.

By: Einar Pedersen  
Name: EINAR PEDERSEN  
Title: CHAIRMAN & CEO

MELLON BANK, N.A.

By: Maureen M. George  
Name: Maureen M. George  
Title: Vice President

CERTIFICATE OF ACKNOWLEDGMENT

COMMONWEALTH OF PENNSYLVANIA :

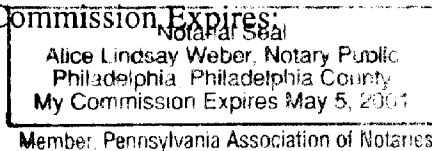
SS

COUNTY OF *Philadelphia* :

Before me, the undersigned, a Notary Public in and for the county aforesaid, on this 9<sup>th</sup> day of September, 1999, personally appeared Ernar Pedersen to me known personally, and who, being by me duly sworn, deposes and says that (s)he is the Chairman & CEO of THORNYCROFT, GILES & CO., INC., a Delaware corporation, and that the seal affixed to the foregoing instrument is the corporate seal of said corporation, and that said instrument was signed and sealed on behalf of said corporation by authority of its Board of Directors, and that (s)he acknowledged said instrument to be the free act and deed of said corporation.

Alice Lindsay Weber  
Notary Public

My Commission Expires:





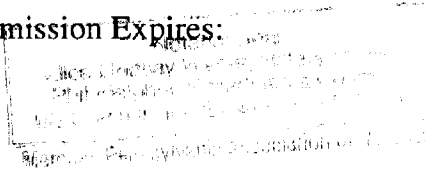
CERTIFICATE OF ACKNOWLEDGMENT

COMMONWEALTH OF PENNSYLVANIA :  
COUNTY OF Philadelphia : SS  
:

Before me, the undersigned, a Notary Public in and for the county aforesaid, on this 9<sup>th</sup> day of September, 1997, personally appeared Maryann M. Gray to me known personally, and who, being by me duly sworn, deposes and says that (s)he is the Vice President of MELLON BANK, N.A., a national banking association, and that the seal affixed to the foregoing instrument is the corporate seal of said corporation, and that said instrument was signed and sealed on behalf of said corporation by authority of its Board of Directors, and that (s)he acknowledged said instrument to be the free act and deed of said corporation.

Alice Lindsay Aket  
Notary Public

My Commission Expires:



**SCHEDULE A**

<u>Application or Patent No.<sup>1</sup></u>	<u>Country</u>	<u>Issue or Filing Date</u>	<u>Expiration Date</u>	<u>Title</u>
5,080,032	U.S.	1/14/92	5/18/2010	Monohull fast sea lift or semi-planing monohull ship
5,129,343	U.S.	7/14/92	4/1/2011	Monohull fast ship
5,231,946	U.S.	8/3/93	1/13/2012	Monohull fast sea lift or semi-planing monohull ship
5,832,856	U.S.	11/10/98	6/9/2017	Monohull fast ship with improved loading mechanism
80812549.4	Europe		6/28/2010	Monohull fast sea lift or semi-planing monohull ship
2793384	Japan	9/20/90	5/18/2010	Monohull fast sea lift or semi-planing monohull ship
510628/92 (Application No.)	Japan	10/1/93		Monohull fast ship
92-700812 (Application No.)	South Korea	4/8/92		Monohull fast sea lift or semi-planing monohull ship
92-702962 <sup>2</sup> (Application No.)	South Korea	10/2/93	4/1/2011	Monohull fast ship
P921423* (Application No.)	Norway	6/28/90		Monohull fast sea lift or semi-planing monohull ship
921601 (Application No.)	Finland	6/28/90		Monohull fast sea lift or semi-planing monohull ship

\* Note: TGC's patent application in Norway (which is based on its European patent) was rejected. TGC has filed an appeal.

<sup>1</sup>Attached hereto a copy of the Letters Patent as issued by the U.S. or foreign Patent Office.

<sup>2</sup>Patent issued, but no patent number assigned yet

## SCHEDULE B

FASTSHIP, INC.  
CONVERTIBLE NOTES

Date Issued	Name	Date Due	Original Principal Amount	Current Principal Amount	Conversion Price Per Share	Comments
10/31/97	Dorance H. Hamilton	3/16/2000	\$666,666.67	\$666,666.67	\$1.9498194	Originally issued by TGC in March 1997. Transferred to FSI on 10/31/97
	Forrest E. Mairs, Jr.	3/16/2000	\$666,666.67	\$666,666.67	\$1.9498194	Originally issued by TGC in March 1997. Transferred to FSI on 10/31/97
	Einar Pedersen	3/16/2000	\$333,333.33	\$333,333.33	\$1.9498194	Originally issued by TGC in March 1997. Transferred to FSI on 10/31/97
	Einar Pedersen	7/20/2000	\$1,000,000	\$1,000,000	\$1.9498194	Originally issued by TGC in July 1997. Transferred to FSI on 10/31/97
	TTS Technology, ASA	3/16/2000	\$333,333.33	\$233,333.33	\$1.9498194	Exercised \$100,000 in September 1997.
11/13/98	TTS Technology, ASA	7/20/2000	\$500,000	\$500,000	\$1.9498194	Originally issued by TGC in July 1997. Transferred to FSI on 10/31/97
	Gabriella M. Grosvenor	11/12/2001	\$24,100	\$24,100	\$3.11	
	David W. Hearn	11/12/2001	\$23,242.50	\$23,242.50	\$3.11	
	Elizabeth F. Hearn	11/12/2001	\$10,330	\$10,330	\$3.11	
	Gail W. Hearn	11/12/2001	\$23,242.50	\$23,242.50	\$3.11	
	Josephine W. Hearn	11/12/2001	\$23,242.50	\$23,242.50	\$3.11	
	Peter Hearn	11/12/2001	\$23,242.50	\$23,242.50	\$3.11	
	Einar Pedersen	11/12/2001	\$104,400	\$104,400	\$3.11	

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**FASTSHIP, INC.  
CONVERTIBLE NOTES**

Date Issued	Name	Date Due	Original Principal Amount	Current Principal Amount	Conversion Price Per Share	Comments
12/16/98	Roland K. Bullard II Sally S. Bullard	12/15/2001	\$100,000	\$100,000	\$3.11	
	DJC Enterprises	12/15/2001	\$100,000	\$100,000	\$3.11	
	William A. Graham, IV	12/15/2001	\$100,000	\$100,000	\$3.11	
	Lawrence Huff	12/15/2001	\$50,000	\$50,000	\$3.11	
	McKeel Family Partners, L.P.	12/15/2001	\$108,850	\$108,850	\$3.11	
	Thomas J. Reilly, Jr.	12/15/2001	\$25,000	\$25,000	\$3.11	
12/17/98	Dorance H. Hamilton	12/16/2001	\$250,000	\$250,000	\$3.11	
1/21/99	Frederick Holding	1/20/2002	\$50,000	\$50,000	\$3.11	
	Charles L. Andes	1/20/2002	\$50,000	\$50,000	\$3.11	
4/2/99	John Gilray Christy	4/1/2002	\$25,000	\$25,000	\$3.11	
	Peter A. Banoliel	4/1/2002	\$50,000	\$50,000	\$3.11	
4/29/99	Richard Brown	4/28/2002	\$25,000	\$25,000	\$3.11	
5/7/99	Clifford F. Ransom II	5/6/2002	\$25,000	\$25,000	\$3.11	
	Robert A. Lutz	5/6/2002	\$300,000	\$300,000	\$3.11	
5/19/99	Morris A. Williams, Jr.	5/18/2002	\$100,000	\$100,000	\$3.11	
	John W. Plasecki	5/18/2002	\$50,000	\$50,000	\$3.11	
	Lynn P. Cunningham V.W. Plasecki as Trustees	5/18/2002	\$50,000	\$50,000	\$3.11	

**FASTSHIP, INC.  
CONVERTIBLE NOTES**

Date Issued	Name	Date Due	Original Principal Amount	Current Principal Amount	Conversion Price Per Share	Comments
5/21/99	Rodney D. Day III	5/20/2002	\$100,000	\$100,000	\$3.11	
5/24/99	Crown Cork & Seal Company, Inc. Master Retirement Trust	5/23/2002	\$250,000	\$250,000	\$3.11	
	James H. Bromley	5/23/2002	\$25,000	\$25,000	\$3.11	
6/2/99	John J.F. Sherred	6/1/2002	\$217,700	\$217,700	\$3.11	
6/4/99	A. Wesley Wyatt	6/3/2002	\$150,000	\$150,000	\$3.11	Being held; has not paid as of 8/4/99.
6/16/99	Barthco International, Inc.	6/15/2002	\$100,000	\$100,000	\$3.11	
	Jane C. Beck	6/15/2002	\$50,000	\$50,000	\$3.11	
	Horace P. Beck	5/16/2002	\$30,000	\$30,000	\$3.11	
6/24/99	Ronald J. Naples	6/26/2002	\$50,000	\$50,000	\$3.11	
7/8/99	DJC Enterprises	7/7/2002	\$150,000	\$150,000	\$3.11	
7/10/99	Daniel J. Keating	7/9/2002	\$100,000	\$100,000	\$3.11	
7/14/99	Jane C. Beck	7/13/2002	\$50,000	\$50,000	\$3.11	
	Jane H. Choate	7/13/2002	\$25,000	\$25,000	\$3.11	
7/27/99	Thomas J. Reilly, Jr.	7/26/2002	\$25,000	\$25,000	\$3.11	
7/29/99	William V. Dougherty III	7/28/2002	\$25,000	\$25,000	\$3.11	

**FASTSHIP, INC.  
CONVERTIBLE NOTES**

Date Issued	Name	Date Due	Original Principal Amount	Current Principal Amount	Conversion Price Per Share	Comments
8/4/99	William A. Graham III	8/3/2002	\$100,000	\$100,000	\$3.11	
	Robert M. Rubin	8/3/2002	\$25,000	\$25,000	\$3.11	
	Louis Bluver	8/3/2002	\$25,000	\$25,000	\$3.11	
9/3/99	Forrest A. Mars, Jr.	9/2/2002	\$535,265	\$535,265	\$3.11	
9/4/99	Mark Ryan	9/3/2002	\$25,000	\$25,000	\$3.11	

Additional convertible notes may be issued in an aggregate amount not exceeding \$4,500,000 to persons or entities who provide debt financing to FastShip Inc. in the future.