

The fun and easy way® to  
turn an ingenious idea into a profitable product

# Inventing

FOR

# DUMMIES®



**Pamela Riddle Bird, PhD**

*Founder and CEO, Innovative Product Technologies, Inc.*

**A Reference for the Rest of Us!®**



**FREE eTips at  
[dummies.com](http://dummies.com)®**

The fun and easy way\* to  
turn an ingenious idea into a profitable product

# Inventing

FOR

# DUMMIES®



**Pamela Riddle Bird, PhD**

*Founder and CEO, Innovative Product Technologies, Inc.*

**A Reference for the Rest of Us!®**



**FREE eTips at  
dummies.com®**

# ***Inventing For Dummies***<sup>®</sup>

**by Pamela Riddle Bird,  
PhD**

*Foreword by Dr. Forrest M. Bird*



WILEY

Wiley Publishing, Inc.

## **Inventing For Dummies®**

Published by

**Wiley Publishing, Inc.**

111 River St.

Hoboken, NJ 07030-5774

[www.wiley.com](http://www.wiley.com)

Copyright © 2004 by Wiley Publishing, Inc.,  
Indianapolis, Indiana

Published by Wiley Publishing, Inc., Indianapolis, Indiana

Published simultaneously in Canada

No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, scanning, or otherwise, except as permitted under Sections 107 or 108 of the 1976 United States Copyright Act, without either the prior written permission of the Publisher, or authorization through payment of the appropriate per-copy fee to the Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923, 978-750-8400, fax 978-646-8600. Requests to the Publisher for permission should be addressed to the Permissions Department, John Wiley & Sons, Inc., 111 River Street, Hoboken, NJ 07030, 201-748-6011, fax 201-748-6008, or online at <http://www.wiley.com/go/permissions>.



Trademarks: Wiley, the Wiley Publishing logo, For Dummies, the Dummies Man logo, A Reference for the Rest of Us!, The Dummies Way, Dummies Daily, The Fun and Easy Way, Dummies.com and related trade dress are trademarks or registered trademarks of John Wiley & Sons, Inc. and/or its affiliates in the United States and other countries, and may not be used without written permission. All other trademarks are the property of their respective owners. Wiley Publishing, Inc., is not associated with any product or vendor mentioned in this book.

**LIMIT OF LIABILITY/DISCLAIMER OF WARRANTY:** The publisher and the author make no representations or warranties with respect to the accuracy or completeness of the contents of this work and specifically disclaim all warranties, including without limitation warranties of fitness for a particular purpose. No warranty may be created or extended by sales or promotional materials. The advice and strategies contained herein may not be suitable for every situation. This work is sold with the understanding that the publisher is not engaged in rendering legal, accounting, or other professional services. If professional assistance is required, the services of a competent professional person should be sought. Neither the publisher nor the author shall be liable for damages arising herefrom. The fact that an organization or Website is referred to in this work as a citation and/or a potential source of further information does not mean that the author or the publisher endorses the information the organization or

Website may provide or recommendations it may make. Further, readers should be aware that Internet Websites listed in this work may have changed or disappeared between when this work was written and when it is read.

For general information on our other products and services or to obtain technical support, please contact our Customer Care Department within the U.S. at 877-762-2974, outside the U.S. at 317-572-3993, or fax 317-572-4002.

Wiley also publishes its books in a variety of electronic formats. Some content that appears in print may not be available in electronic books.

Library of Congress Control Number: 2004102440

ISBN: 978-0-7645-4231-2

Manufactured in the United States of America

10 9 8 7

10/RV/QU/QU/IN



# About the Author

**Pamela Riddle Bird, PhD**, is a nationally recognized commercialization expert who's counseled thousands of inventors and entrepreneurs over two decades.

After directing one of the largest publicly funded innovation centers in the United States, Dr. Bird founded and serves as CEO of Innovative Product Technologies, Inc., a product- and technology-based market commercialization corporation. Dr. Bird works with independent inventors, serving as a liaison between inventors and inventor organizations, venture capital organizations and other investors, manufacturers, entrepreneurial networks, and research park facilities.

Dr. Bird is the author of more than 70 publications and has been quoted and featured in numerous newspapers throughout the country including *The New York Times*, *Barron's - The Dow Jones Business and Financial Weekly*, *Forbes Magazine*, and the *Miami Herald*. She's a featured speaker in a video titled *Inventing, Patenting and Profiting: How to Make a Fortune on a Small Budget by Inventing*. She has been a guest on various TV shows, including *Golden Lifestyles*, and she appeared in and served as a consultant to ABC's *20/20*. She's also taught classes on product commercialization and technology transfer at various universities throughout the nation.

Dr. Bird co-branded the first credit card in the nation with MBNA (one of the largest credit card companies in

the world) to start the first credit card for innovators, patent attorneys, and patent agents. All proceeds Dr. Bird receives from this card are donated to the Inventors Educational Foundation. Dr. Bird founded this nonprofit foundation that assists innovators and entrepreneurs of all ages and walks of life with educational and commercialization needs.

Among her many memberships and organizational affiliations, Dr. Bird served under three governors as commissioner for the Governor's Commission on Women and an advisor for the Adult Community Education Board and also the Regional Coordination Council. She's been the recipient of various recognition awards, including the Outstanding Community Service award, and has received letters of appreciation for community involvement in labor employment issues, child abuse prevention, crime prevention, and education needs.

Dr. Bird is also a pilot who also enjoys horseback riding, snow skiing, hiking, fly fishing, and working with youth science fairs.

# Dedication

This book is dedicated to the inventors who risk everything to be different, to be creative, and to change the world. You make a difference. It's also dedicated to the supporters and service providers to inventors — the people behind the scenes — including the families who sacrifice to allow the creators to move forward. It's also dedicated to those inventors in the National Inventors Hall of Fame who show all others the difference one person can make in improving mankind for all generations.

To my husband, Dr. Forrest M. Bird, inventor of the medical respirator, who's spent the major part of his life inventing so that others may live — including my own daughter. You stand in front of me to clear the way, beside me as my best friend and partner, and in back of me to protect me ahead. You are my great love and soul mate.

To my beloved mother, Julia Nicklyn Hudek. Mom made a large investment when she bore me — the last of eight children. She believed in me, encouraged me, and was always there whenever I needed her. And, to my children, Julie "Rachel" Riddle and Robert "Brandon" Riddle. Rachel and Brandon, you never cease to keep me laughing, amazed, and always proud. You are my pride and joy. You are my shining stars as I am your M.O.M. (Mother on a Mission).



To my father, Albin C. Hudek, Sr., as well as to my brothers and sisters, Albin C. Hudek, Robert J. Hudek, Ronald B. Hudek, Frank J. Hudek, Elaine L. Pingle, Kathleen A. Gerard, and the late Michael A. Hudek.

# Acknowledgments

When a work of this magnitude is released, you can be assured that a number of individuals were heavily involved; therefore, I am indebted and thankful to many. First, I want to thank the innovators who make this book possible and who have changed the world.

I want to thank my husband for his willingness to write the foreword for me. Forrest is not only my husband; he is my best friend and soul mate. He's a man who's dedicated his life to saving other people's lives and is a man of honor who served in three wars and still continues his mission of inventing for mankind.

Undoubtedly, I will leave out some people who were important to the project, and for that I apologize. My official thanks must start with my official Dummifier *par excellence*, Ms. Kathleen Dobie. Kathleen is an incredible person and a delight to work with. She has insight and is an exceptional editor. I also want to thank my Project Editor, Ms. Chrissy Guthrie, for her drive, energy, and talents in making this book happen, and Copy Editor Jennifer Bingham for checking and verifying everything to make sure it's right. Ms. Kathy Cox, Acquisitions Editor, believed in me, my talents, drive, and work and was the champion for this project and instrumental in getting it off the ground.

I would like to especially thank Gerald G. Udell, PhD, a pioneer and supporter in the invention industry whom I

have continually called upon for his knowledge and guidance. I would also like to thank Mr. Donald G. Kelly, my long time friend and business associate, for being an inventor's advocate and for the years of continuous support to the independent inventor community. In addition, I received much of the legal advice, not only for this book but over two decades of working with inventors, from the following intellectual property attorneys: Mr. James Beusse and Ms. Christine McLeod of Beusse, Brownlee, Wolter, Mora & Maire, PA in Orlando, FL; Mr. Robert Downey of Robert M. Downey, P.A. in Boca Raton, FL; Mr. William Hobby, III in Winter Park, FL; Mr. Robert Kain, Jr of Fleit, Kain, Gibbons, Gotman, Bongini & Bianco in Ft. Lauderdale, FL; Mr. John Kirk, Jr of Jenkins and Gilchrist PC in Houston, TX; Mr. Peter Loffler in Tallahassee, FL; Ms. Jennie Malloy and Mr. John Malloy of Malloy and Malloy, PA in Miami, FL; Mr. John Oltman of Oltman, Flynn and Kubler in Fort Lauderdale, FL; Mr. Thomas Saitta of Rogers Towers Bailey Jones and Gay, PA in Jacksonville, FL; Mr. David Saliwanchik and Mr. Jeffrey Lloyd of Saliwanchik, Lloyd and Saliwanchik in Gainesville, FL; Mr. Jesus Sanchelima in Miami, FL; and Mr. Brian Steinberger of Law Offices Of Brian S. Steinberger, PA in Cocoa, FL. I would also like to especially thank Mr. Craig Dahlin, CEO of MarketreaderPro.com for the many long hours he worked on establishing the computer linkages, follow-up, and phone calls from his associate and wife, "Moon Eagle," in order to calculate the statistics obtained from inventors used in this book. And then there are the indispensable ones behind the scenes: Mr. Eugene Andrews Grinstead IV, Ms. Kristine Homant, Lowell Salter, Mr. Ted Schaewecker, Ms. Joanne Hayes-Rines, Mr. Edward Miller, and Mr. Robert Loughler.

Finally, I am ever so grateful to the board members for my company: Dr. J. Robert Cade, MD, inventor of Gatorade; Mr. Lloyd Bell, physicist; Dr. Forrest M. Bird, inventor of the medical respirator; Mr. Philip D. Bart, holder of over 100 patents and marketer of the Cabbage Patch doll; Mr. Edward Shadd, development team member of the UPC Bar Code; Mr. John Weber, Founder and Former CEO, Monchik-Weber, Corporation; Mr. Harris Rosen, hotelier; Mr. Patrick Perry, attorney; the late Mr. Edward Lowe, inventor of Kitty Litter, and the late Dr. Jay Morton, scriptwriter for Superman. These innovators and entrepreneurs believed in me when I started my own business dedicated toward working with those who want to change the world. They've directed me through the thick and thin. They, too, believe in the undying spirit of the independent inventor.

# Publisher's Acknowledgments

We're proud of this book; please send us your comments through our Dummies online registration form located at [www.dummies.com/register/](http://www.dummies.com/register/)

Some of the people who helped bring this book to market include the following:

## **Acquisitions, Editorial, and Media Development**

**Project Editor:** Christina Guthrie

**Acquisitions Editor:** Kathy Cox

**Copy Editor:** Jennifer Bingham

**Assistant Editor:** Holly Gastineau-Grimes

**Technical Editors:** Gerald G. Udell, PhD and John J. Kirk, Jr.

**Senior Permissions Editor:** Carmen Krikorian

**Editorial Manager:** Christine Meloy Beck

**Editorial Assistants:** Melissa Bennett and Elizabeth Rea



**Cover Photo:** © Steve Bronstein/Getty Images/The Image Bank

**Cartoons:** Rich Tennant, [www.the5thwave.com](http://www.the5thwave.com)

## **Production**

**Project Coordinator:** Maridee Ennis

**Layout and Graphics:** Andrea Dahl, Kelly Emkow, Denny Hager, Stephanie D. Jumper, Michael Kruzil

**Proofreaders:** Aptara Production Services

**Indexer:** Aptara Production Services

## Publishing and Editorial for Consumer Dummies

**Diane Graves Steele**, Vice President and Publisher, Consumer Dummies

**Joyce Pepple**, Acquisitions Director, Consumer Dummies

**Kristin A. Cocks**, Product Development Director, Consumer Dummies

**Michael Spring**, Vice President and Publisher, Travel

**Brice Gosnell**, Associate Publisher, Travel

**Kelly Regan**, Editorial Director, Travel

## **Publishing for Technology Dummies**

**Andy Cummings**, Vice President and Publisher,  
Dummies Technology/General User

## **Composition Services**

**Gerry Fahey**, Vice President of Production Services

**Debbie Stailey**, Director of Composition Services

# Foreword

It was November 1995 when I first met Pamela Riddle. I'd been invited by the USPTO to lecture to inventors and would-be inventors at a special Educational Forum held at Walt Disney World in Orlando, Florida. This was my first lecture for the USPTO following my induction into the U.S. Inventors Hall of Fame.

I guess the reason why the Patent Office selected me as their keynote to that group of inventors was due to the fact that I was a loner in terms of invention. In other words, I conceived, developed, manufactured, educated, and marketed my Bird Respirator without financial obligation to others. Therefore, I understood most of the trials and tribulations facing my audience, because I'd traveled over the route before. The title of my lecture essentially was, "If I Can Do It, You Can, Too." After a ten-year period of patient introduction starting in 1958, the Bird Respirators were saving lives in both military and civil hospitals the world over.

Following my lecture was an all-business lady speaking on International Commercialization of New Technology. I figured the title alone would put her audience to sleep. Much to my surprise, within five minutes you could've heard a pin drop in the large auditorium. Ms. Riddle had her audience totally captivated; her lecture was informative and interesting, and I learned a number of interesting points. I met Ms. Riddle briefly after the meeting.

My next meeting with Ms. Riddle was at a similar inventors conference in Miami, which I was invited to speak at. This meeting was a combined venture between Ms. Riddle's company, various nonprofit invention groups, and the US Patent Office. I soon learned that Ms. Riddle was the organizer and director of the meeting. During the meeting, I was fortunate to be able to visit with Ms. Riddle during several luncheons and the formal banquet. I became fascinated with her ability to project her knowledge relative to inventing and the patenting process, and her marketing skills relative to inventions. She was a walking dictionary and resource in terms of innovation. If only I had been able to talk with such a knowledgeable individual following the development of my Medical Bird Respirator, it would have saved me considerable anguish.

During the next few years, our paths continued to cross more and more frequently. I increasingly became enamored with Ms. Riddle as a straight shooter — her frankness was overwhelming. You knew exactly where you stood with her at all times. As we learned each other's habits, it became evident that our personal interests were parallel. Our continued associations lead to our marriage on May 22, 1999.

As my wife, Pam continues to keep me amazed, and her projects continue to be challenging. Following her own innovative methodology, she copes with changing times. Her frankness with her clients is amazing. I've heard her on numerous occasions tell clients that she considers their newborn invention ugly and advises them not to bet the farm on its success. I've also talked with clients whom Pam had previously advised that their invention was not the best, only to have them go to a "commercial source" that advised them relative to what they wanted

to hear: “Your invention is terrific!” They did indeed lose the family jewels before they realized that what Pam had originally told them was the truth.

It is wonderful being married to a challenging lady, whom you enjoy dating every day, with whom you can intelligently discuss the ever changing societies of the world and the ramifications thereof.

— Forrest M. Bird, M.D., Ph.D., ScD.



# Contents

## [Title](#)

## [Introduction](#)

[About This Book](#)

[Conventions Used in This Book](#)

[Foolish Assumptions](#)

[How This Book Is Organized](#)

[Icons Used in This Book](#)

[Where to Go from Here](#)

## [Part I : Making Your Idea Yours](#)

### [Chapter 1: The Innovation Process](#)

[Deciding Where to Go with Your Idea](#)

[Protecting Your Idea](#)

[Spinning Through the Product Life Cycle](#)

### [Chapter 2: Patent Basics](#)

[Finding Out the Functions of a Patent](#)

[Knowing What's Patentable](#)

[Looking at the Types of Patents](#)

[Hiring a Patent Agent or Attorney](#)

[It's a Small World: International Issues](#)

### [Chapter 3: Conducting a Patent Search](#)

[Do I Really Need to Do a Patent Search?](#)

[Determining Whether Your Idea Is Really New](#)

[Searching for Existing Patents](#)

[Getting Professional Help](#)

[Using Your Search Results](#)

## [Chapter 4: Applying For and Receiving Your Patent](#)

[Knowing Who Can Apply for a Patent](#)

[Filing for Different Types of Patents](#)

[Making the Most of a Pending Patent](#)

[Getting Your Patent](#)

## [Chapter 5: Maintaining and Defending Your Patent](#)

[Keeping Current by Paying Your Fees](#)

[Valuing Your Patent](#)

[Defending Your Patent Against Infringement](#)

[Insuring Your Patent](#)

## [Part II : Securing Other Intellectual Property](#)

### [Chapter 6: Trademarks and Trade Secrets](#)

[What Is a Trademark?](#)

[Federal versus State Trademarks](#)

[Using the Trademark and Service Mark Symbols](#)

[Understanding the Basics for Filing a Federal Trademark Application](#)

[Filing an Intent-to-Use Application](#)

[Trade Secrets — Shhhhhhhh!](#)

## Chapter 7: Stopping Copycats with a Copyright

[What Is a Copyright?](#)

[Who Can Claim Copyright?](#)

[Copyright Protection](#)

[Registering Your Copyright](#)

[Transferring a Copyright](#)

## Chapter 8: Mum's the Word: Keeping It Confidential

[Spilling the Beans about the Basics](#)

[Sharing with the People in Your Life](#)

[Running into Someone Who Won't Sign](#)

## Part III : Developing Your Idea

### Chapter 9: Prototyping: Making It Work

[Understanding the Importance of Prototyping](#)

[Obtaining Your Prototype](#)

[Protecting Your Ideas During the Prototyping Process](#)

[Cost-Effectively Producing Your Product](#)

### Chapter 10: Hiring Helpers and Working with Work-for-Hire Agreements

[Hiring Professionals to Turn Your Idea into a Reality](#)

[Protecting Your Idea and Your Product](#)

[Working Out Work-for-Hire Agreements](#)

### Chapter 11: Evaluating Your Invention's Potential

[Answering Questions about Viability](#)

[Asking for Evaluations](#)

[Maximizing the Results of Your Evaluation](#)

## [Chapter 12: Looking at the Production Process](#)

[Focusing on the Process](#)

[Making Up the Materials](#)

[Inspecting Facilities](#)

[Calculating Costs](#)

[Working with People](#)

[Checking Quality Control](#)

## [Part IV : Commercializing Your Invention](#)

### [Chapter 13: Developing a Business Plan](#)

[Realizing that You Need a Business Plan](#)

[Working Up a Business Plan](#)

[Breaking Down Your Business Plan](#)

### [Chapter 14: Finding Funding](#)

[Determining How Much and For What](#)

[Figuring Out the Types of Financing](#)

[Seeking Out Sources of Capital](#)

[Getting Free Money from Your Uncle Sam](#)

### [Chapter 15: Keeping Control with Your Own Business](#)

[Considering Carefully](#)

[Deciding to Go for It](#)

[Building a Business Structure](#)

[Adhering to Government Regulations](#)

[Doing Business with the Federal Government](#)

[Making Use of Contacts and Sources of Assistance](#)

## [Chapter 16: Partnering and Manufacturing Arrangements](#)

[Paying and Partnering Arrangements](#)

[Teaming Up with a Manufacturer](#)

[Partnering Abroad](#)

## [Chapter 17: Preparing to Take Your Invention to Market](#)

[Discovering What You Need to Know](#)

[Doing Market Research](#)

## [Chapter 18: Marketing Your Product](#)

[Developing Your Market Strategy](#)

[Evaluating Your Ongoing Progress](#)

## [Chapter 19: Advertising Your Product](#)

[Exploring Advertising Basics](#)

[Designing Your Advertising Campaign](#)

[Supplementing Your Regular Advertising](#)

[Looking At a Few Tricks of the Trade](#)

## [Chapter 20: Licensing Your Product](#)

[Contemplating Licensing](#)

[Regarding Licensees](#)

[Getting in Touch with Your Potentials](#)

[Facing Rejection](#)

[Examining Types of Licensing Agreements](#)

[Taking Care of Foreign Licensing](#)

## [Chapter 21: Negotiating a License](#)

[Employing the Art of Negotiation](#)

[Estimating Your Invention's Value](#)

[Contemplating Compensation](#)

## [Part V : The Part of Tens](#)

### [Chapter 22: Ten Key Contacts](#)

[Evaluation Services for Your Invention](#)

[The Federal Trade Commission](#)

[Inventors' Digest Magazine](#)

[The Library of Congress Copyright Office](#)

[National Aeronautics and Space Administration \(NASA\)](#)

[Small Business Development Center Program](#)

[Toy Industries Association](#)

[United Inventors Association](#)

[The United States Patent and Trademark Office](#)

[Small Business Administration](#)

### [Chapter 23: Ten Inventions \(and Inventors\) That Changed the World](#)

[Cottoning On to Eli Whitney](#)

[Meeting Metal Man Henry Bessemer](#)

[Reaping with Cyrus Hall McCormick](#)

[Sterilizing and Louis Pasteur](#)

[Calling Alexander Graham Bell](#)

[Cooling Off with Willis Haviland Carrier](#)

[Flying High with the Wright Brothers](#)

[Assembling Henry Ford](#)

[Animating Walt Disney](#)

[Plugging In to Steve Wozniak](#)

## [Chapter 24: Ten Inventors to Emulate](#)

[Dr. Forrest M. Bird](#)

[James L. Fergason](#)

[Helen M. Free](#)

[Dr. James Hillier](#)

[Dr. Marcian E. \(Ted\) Hoff](#)

[William P. Lear](#)

[Edward Lowe](#)

[Dr. Jay Morton](#)

[Dr. Robert H. Rines](#)

[James E. West](#)

## [Part VI : Appendixes](#)

### [Appendix A: Sample Agreements](#)

### [Appendix B: Online Resources](#)

[USPTO and Related International Links](#)

[Important Links for Copyrights](#)

[Domain Name-Related Links](#)

[Law-Related Links](#)

[Other Important Legal, International, and Organizational Links](#)

[News, Search, Manufacturers, and Law Associations-Related Links](#)

[Additional Government Resources](#)



# Introduction

---

Most people think of an inventor as a wild-eyed, gray-haired eccentric. Though this image may ring true in one or two cases, innovators come in all sizes and all ages — just look in the mirror.

When I initially started working with inventors, I thought that lack of funding was their primary difficulty. Now, after two decades of experience, I venture to say that the primary impediment inventors face is that they're soooooo blessed with creativity, they just can't get focused. Professional inventors don't come up with just one invention; they continually have new ideas and don't know which one to concentrate on. This book can't really help with your concentration problem, but it can help you focus on making the most of each idea you have.

## About This Book

This book is designed to answer your questions about how to take an idea and turn it into a product. Put another way, this book can help you turn your dreams into reality. To do that, I put my 20-plus years of experience in helping inventors bring their ideas to fruition to work for you.

I tell you how to decide whether your idea is marketable and for how much. I fill you in on the steps you must take

to bring your product to market. I point out potential funding sources and tell you how to get in touch with a vast array of folks who can help advance your project. I alert you to possible snags and help you avoid common pitfalls.

I offer this help in an easy-to-read, easy-to-access format. Each chapter in this book stands alone. Each chapter serves as one individual piece of the whole inventing-and-marketing pie. You can dip into any chapter or section that interests you, then skip on to the next topic, whatever and wherever it is. You may be interested in reading some chapters more than others; however, in the long run, you need the information in all of them.

Throughout the book, I explain concepts that may be new to you and give you information and advice in clear, straightforward language.

## Conventions Used in This Book

When writing this book, I used a few conventions that you should be aware of:

- ✓ I use *italics* to highlight terms and concepts that I explain in case they're new to you. I also use italics for emphasis.
- ✓ The stories in gray boxes are known as *sidebars*. Sidebars contain information you may find

interesting or useful, but which you don't need to understand the topic at hand. You can choose to read them or not.

✓ Web sites and e-mail addresses appear in monofont to help them stand out in the text.

## **Foolish Assumptions**

I assume that you're reading this book because you have an idea and want to know what to do next. You want to find out whether your idea is marketable and how to get it to market and make a profit from it.

It doesn't matter whether you have a prototype or a patent yet. Maybe you have both and want to know what to do next. You want to move forward and do something with your idea. You not only want to see people buy it but you want to make money as well.

Rest assured that you've come to the right place.