



Feminine Side of Inventing

Women Inventors and
their Contributions

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March is Woman's History Month

We Know of:

Madam Marie Curie – Radium
2 Nobel Prizes (One Shared with Husband)
Florence Nightingale – Nursing
Amelia Earhart – Aviation

What About:

Ann Harned Manning – Auto Mowing Machine
Cyrus McCormick – Reaper
Sophia Germain – Theory of Elasticity
Eiffel Tower Construction
Mary Hopkinson Gibbons – Pump Oxygenator
Open Heart Surgery
Dr. Nettie Stevens – Theory of X/Y Chromosomes
Genetics Research
Emily Warren Roebling – Construction
Brooklyn Bridge

Problems to Overcome

Women Inventors

about 8 percent of US Patents

Prior to WWII - Individualism

Lack of Educational/Career Opportunities

Full Responsibility for Home and Family

Patriarchal Culture and Law

WWII

Career Opportunities Available as Men Drafted into Services

After WWII-Corporatism

Educational/Career Incentives

Medicine/Law/Science/Math/Computers/Engineering

How Women Invent

Simple
Practical and
Don't Need a Tool to Open It

Advertisement – Corbett Canyon Wine

What Women Invent

Consumer Products

- Dishwasher
- Coffee Maker
- Carpet Sweeper

Industrial Products

- Cotton Gin
- Communication Systems

Computer Products

- Compilers
- Gaming Graphics
- Networking Software

Biomedical Products

- Chemotherapy
- AZT
- Protease Inhibitors

Female Products

- Bra

Consumer Products

Josephine Cochran

Mass Produced Mechanical Dishwasher – (1886)

Built on Prior Design of Mary Hobson (1870)

Commercially Used – \$250.00

Became KitchenAid (1949)

Melitta Benz

Drip Coffee Filter (Melitta Cone Filter)

Problem-Coffee held in leakable coffee bags

Anna Bissell

Improved Carpet Sweeper

Hog Turfs on Wooden Core

CEO of Bissell Co. after death of husband

“Women don’t care about the machinery”

Consumer Products

Agnes McQueary – Fabric Softener Sheets (Procter & Gamble)

Jane Wells – Jolly Jumper

Patsy Sherman- Scotchgard (3M Company)

Joy Managano-Miracle Mop

Betty Cronin-TV Dinners (Swanson & Son)

Ruth Siems –Stove Top Stuffing (General Foods)

Rose Totino-Frozen Pizza

Helen Blanchard-ZigZag Sewing Machine (1873)

Elizabeth Howe (Elias Singer)- Sewing Machine (1843)

Ms. Singer (Isaac Merritt Singer)-Sewing Machine (1850)

Industrial Products

Hedy Lamar

Secret Communication System (USP 2,292,387)

Synchronization Between Transmitter and Receiver

Player Piano Roll

Frequency Hopping Communication

Catharine Littlefield Greene

Cotton Gin

Wife of General Nathaniel Greene

Aide to George Washington

Hired Eli Whitney as School Teacher for Children

Problem -Reduce Labor in Ginning Cotton

Industrial Products

Bette Nesmith Graham – Liquid Paper

Acrylic paint to cover typing mistakes

1980 – Net worth 50 Million Dollars

Mary Anderson – Manual Windshield Wiper (USP 743,801)

Margaret Knight – Flat Bottom Paper Bag (1871) (USP 116,842)

Lydia Deubener – Shopping Bag with Handles (1918)

Emily Gross Davenport-Electric Motor (1834)

Computer Products

Lady Ada Lovelace

Software Program for Babbage Analytical Machine

Grace Murray Hopper (Rear Admiral, USN)

UNIVAC Compiler -1952

COBAL Language

Awarded National Medal of Technology 1991

Computer Products

Computers-Women of ENAIC

“Figure out how it works, then figure out how to use it”

Six Women Programmers

Jean Jennings and Betty Snyder

Stored Program with John von Neuman

C-10 Instruction Set

FORTRAN Language

Computer Products

Edith Clarke-Graphic Calculator (Power Transmission) (1921)

First woman EE from MIT (1919)

Edna Schneider Hoover-Computerized Telephone System
(1971)

Roberta Williams – Graphic Computer Game (Mystery House)

Lynn Hershman Leeson-Virtual Film Set (Blue Screen)

Nancy Busson- Aging Software (Morphing)

Shaula Yemini-Network Debugging Software (SMARTS)

Susan Kasen Summer – 3D Imaging

BioMedical Products

Florence Nightingale (1820-1910)
Sanitary Hospital Conditions

Louyse Bourgeois (1563-1638)
Obstetrical instruments
Prescribed Iron for Anemia

Miranda Stuart (Dr. James Barry) (1797-1865)
Sulfa drugs for Syphilis/Gonorrhoea

BioMedical Goods

Eliz. Hazen/Rachel Brown-AntiFungal Drug-Nystatin 1949

Dr. Gertrude Elion -Noble Prize in Medicine 1988

45 Patents

Chemotherapy Treatments for:

Leukemia, Foreign Tissue Rejection, Gout, Herpes

Dr. Janet Rideout

AIDS Drug – AZT (USP 4,724,232)

BioMedical Products

Drs. M.Katharine Holloway, Chen Zhao -Protease Inhibitors
(AIDS)

Dr. Rosalyn Yalow-Radioimmunoassay (1959)
1988- National Medal of Science

Dr. Helen Murray Free-Urinalysis

Dr. Suzanne Ildstad-Bone Marrow Transplant (1995)

Dr. Patricia Bath-Laser Cataract Surgery (USP 4,744,360)

Dr. Andrea Bodnar -Cell Life
Enzyme Telomerase

BioMedical Products

Dr. Lilian Vaughan Morgan (1870-1952)

Polio Vaccine for Primates

Confirmed Theory of X/Y Chromosomes

Precursor of Jonas Salk

Dr. Rosalyn Yalow-Radioimmunoassay (1959)

1988- National Medal of Science

Published Rather than Patent

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Female Products

Herminie Cadolle (1889);

Caresse Crosby (1914 – Backless Brassiere);

Ida Rosenthal (1923-Maiden Form Company) - the Bra

USP 6,540,585 –Ventilated Padded Lingerie – 2003

Tradename –VentiBra, Breeze Comfort

H. Miller/L. Lindahl- JogBra

Rommy Revson-Scunci

Tomina Edmark-Topsy Tail

Dr. Judith Esser-Mittag-O.B. Tampon

Marion Donovan-Disposable Diaper

Ruth Hander-Barbie Doll

Conclusion

Small Sample of Inventions Have Been Presented

Not Presented – Inventions in Space, Aviation, Electronics, etc.

In Spite of;

Lack of Education and Opportunity; and

Direct/Indirect Opposition to Their Ability,

Women Have Developed Products That Have Bettered Our Lives.

Women Think Differently, Bring Different Prospective

One Thing In Common

Intense Drive to Bring Idea to Completion

Source: "Patently Female," Ethlie Ann Vare and Greg Ptacek, 2002
"About.com," Women Inventors