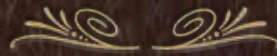


A Genealogy of American Obstetrics and Gynecology

The Early Years: 1750-1870

Ronald M. Cyr MD, FACOG



Key Moments in the History of OB/GYN
CTP39

Tuesday, May 8, 2007 2:30-4:00 p.m.
San Diego Convention Center
55th Annual Clinical Meeting, San Diego, CA

American Obstetrics and Gynecology

1750-1870: The Early Years

- 100 years of medical teaching

1870-1930: A Specialty Develops

- GYN surgery;antiseptic midwifery
- German science: Johns Hopkins
- AGS/AAOG/ABOG

1930-1970: The Golden Years

- Hospital birth/Blood/Antibiotics

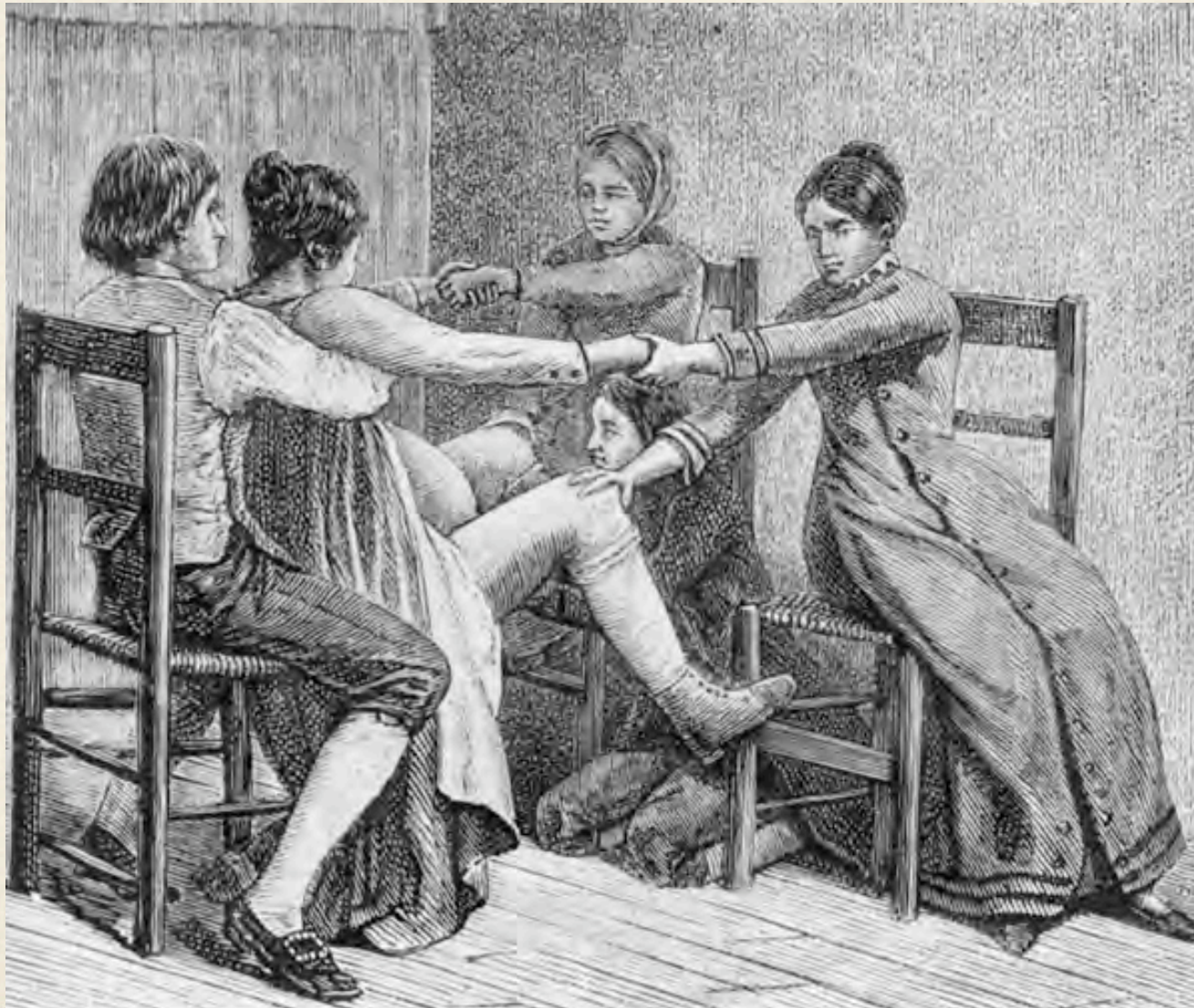
1970-Present: Wither OB/GYN?

- Subspecialty/Gender Impact
- Consumer movement



1750

Midwifery in Colonial Times



Prejudice against men-midwives

*You shall be secret,
and not open any
Mystery appertaining
to your office, in the
presence of any Man,
unless Necessity or
great urgent Cause do
constrain you to do so.*

NYC 1738 law for regulating
midwives



Early Men-Midwives in the USA

John MOULTRIE

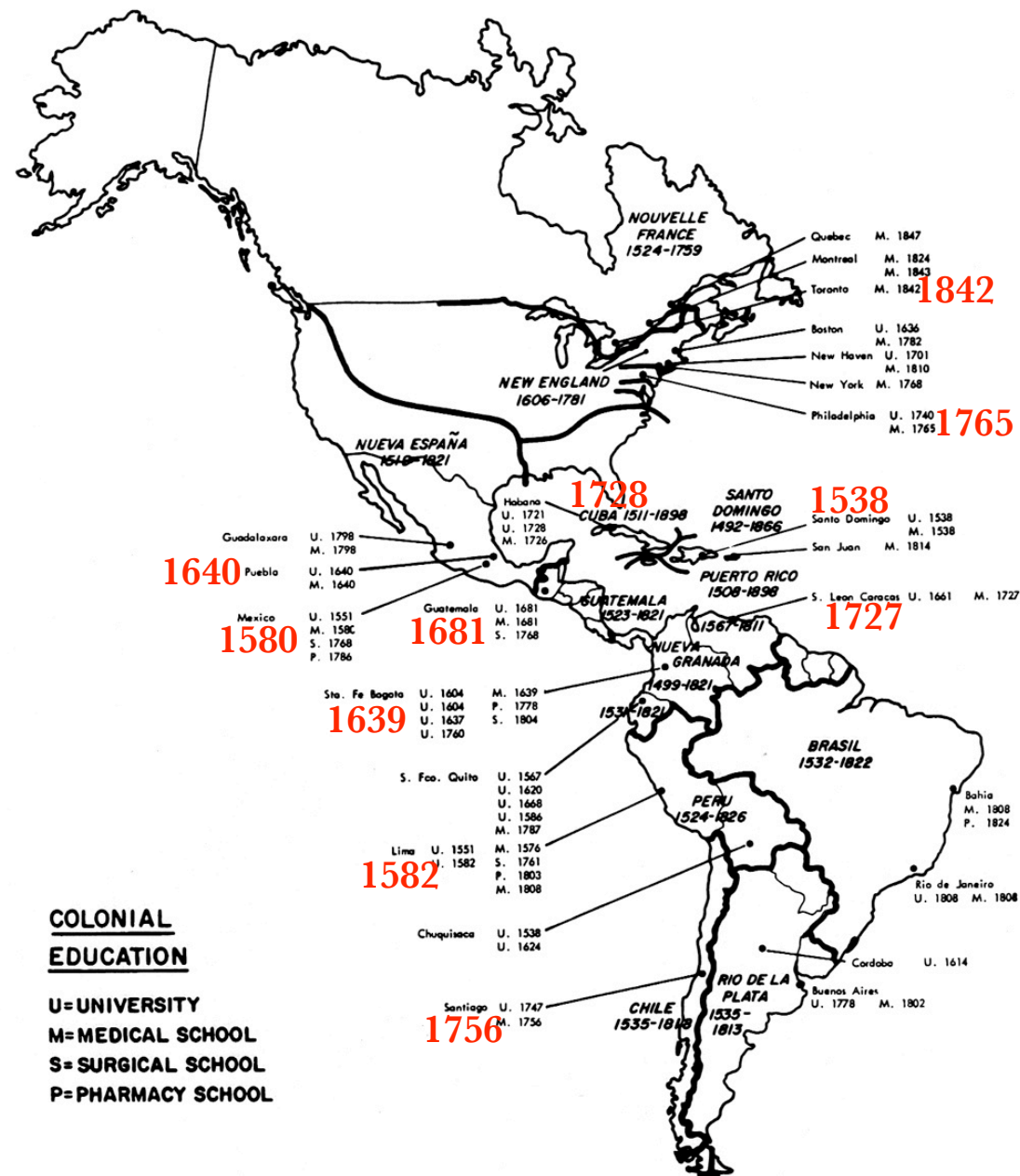
Charleston, SC 1733-83. At his death *Several of the ladies of Charleston bedewed his grave with tears and went into mourning on the occasion.*

James LLOYD (1726-1810)

Boston. apprenticed in Boston; 4 years in London, received OB training from William Smellie and William Hunter.

John DUPUY (? - 1745)

Obituary in a NY newspaper: *Last night died, in the prime of life, to the almost universal regret and sorrow of this city, Mr. John Dupuy, M.D., man-midwife...*



College of Philadelphia 1765-1791



John **Morgan** 1735-1789
Theory and Practice of
Physick



Adam **Kuhn** 1741-1817
Materia medica, Theory
and Practice of Medicine



Caspar **Wistar**
(1761-1818)
Chemistry, Anatomy,
Midwifery and Surgery



William
Shippen Jr.
1736-1808
Anatomy,
Surgery and
Midwifery

Benjamin **Rush**
(1746-1813)
Chemistry,
Theory and
Practice of
Medicine



King's College, NY (1767-1774)

Samuel **CLOSSY** (Dublin 1751)
Anatomy

Samuel **BARD** (Edinburgh 1765)
Medicine

John **JONES** (Rheims 1751) Surgery

Peter **MIDDLETON** (St Andrews 1752)
Pathology

John V. **TENNENT** (Leyden) Midwifery



BARD(1742-1821)

US Edinburgh Medical Alumni

William SHIPPEN Jr. (1736-1808)	1761 - U. Penn
John MORGAN (1735-1789)	1763 - U. Penn
Samuel BARD (1742-1821)	1765 - NY
Adam KUHN (1741-1817)	1767 - U. Penn
Benjamin RUSH (1745-1813)	1769 - U. Penn
Benjamin WATERHOUSE (1754-1846)	1776 - Harvard
Caspar WISTAR (1760-1818)	1786 - U. Penn
Philip S. PHYSICK (1768-1837)	1792 - U. Penn
David HOSACK (1769-1835)	1792 - NY
Ephraim McDOWELL (1771-1830)	1793 - Kentucky
Nathan SMITH (1762-1829)	1796 - Dartmouth
Valentine MOTT (1785-1865)	1807 - NY

Philadelphia & Edinburgh 1750

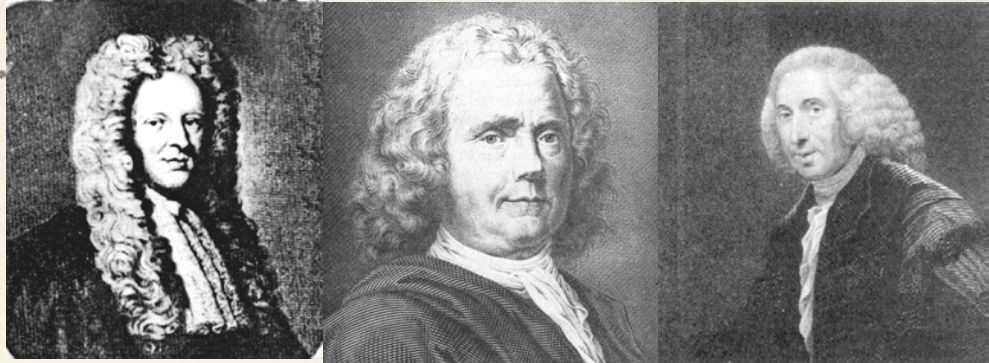
Philadelphia was the largest and most cultured city in British N.A.

Benjamin Franklin had co-founded a College and a Hospital.

Edinburgh was at the center of the “enlightenment” movement, and a ferment of intellectual activity: “Athens of the North”

Its Medical school was considered to be the best in the world until overshadowed in the 19th century by France, and later Germany.

University of Edinburgh



1558 Elizabeth I

1560 Scottish Reformation

1572 St Bartholomew

1582 U. Edinburgh

1620 Mayflower

1685 Medical School

1707 Act of Union

1726 Medical Faculty

1729 Royal Infirmary

1652 Pitcairne A.

1668 Boerhaave H. (Leyden)

1698 Munro A. *Primus*

1710 Cullen W.

1787



1803



1821



Medical School Expansion

Graduates of the first medical schools competed with their professors for paying patients.

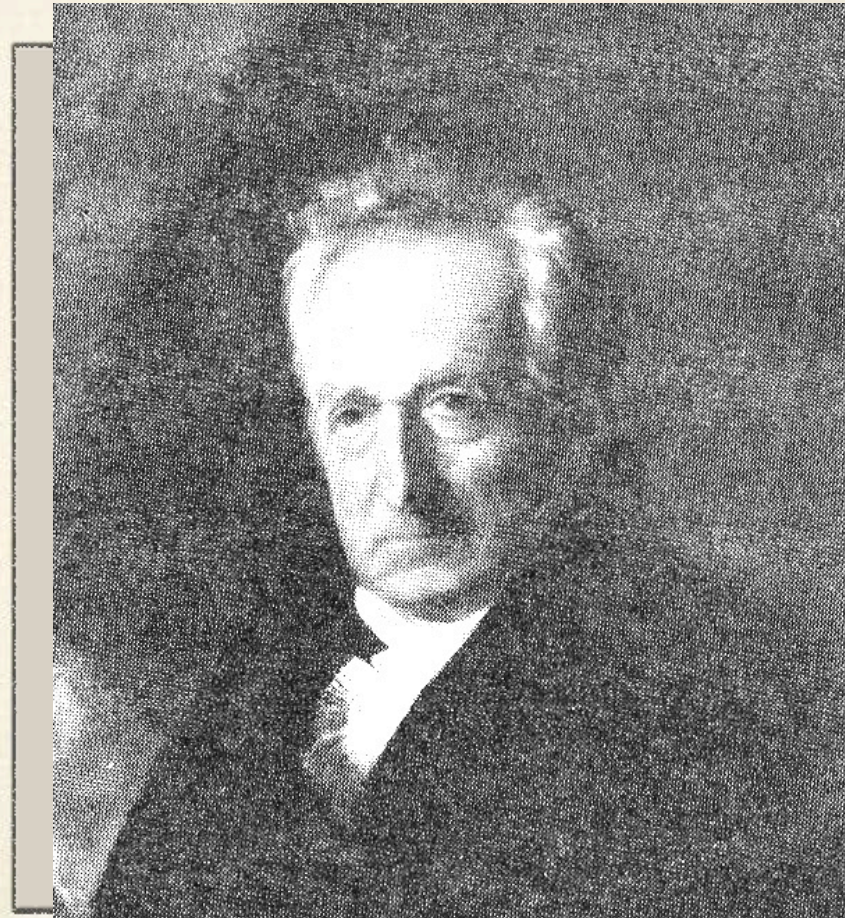
Economic incentive pushed doctors to new towns. The more enterprising founded their own schools, earning fees from students.

Nathan SMITH(1762-1829)

MD Harvard 1790

Edinburgh/Glasgow/
London 1796-7

Founded Medical
Schools (Dartmouth
1797, Yale 1810, Bowdoin
College 1820, Vermont
1822)



Some Notable Medical School Founders

Benjamin W. DUDLEY (1785-1870) MD U Penn 1806

Transylvania U, Lexington KY 1817-1855



Daniel DRAKE (1785-1852) MD U Penn 1818

**Medical College of Ohio, Cincinnati 1819-
Cincinnati Medical College 1834-46**

Gunning S. BEDFORD (1806-1870) MD CPS NY 1829

University City NY 1841



James Platt WHITE (1811-1881) MD Jefferson 1834

U of Buffalo 1846 (with Austin FLINT)

**IF YOU
SPIT ON THE FLOOR
AT HOME
SPIT ON THE FLOOR HERE
WE WANT YOU TO
FEEL PERFECTLY AT HOME**

**STATE BOARD OF HEALTH
RALEIGH, N. C.**



1783 - Harvard College, Cambridge MA

1787-1816 - Queen's College NY

1791 - University of Pennsylvania, Philadelphia PA

1797 - Dartmouth College, Hanover NH

1807 - College of Physicians and Surgeons NYC [*Columbia U*]

1807 - College of Maryland, Baltimore MD [*U Maryland*]

1811-1828 - Brown U RI

1812-1841 - CPS Western District, Fairfield NY

1812 - Yale College, New Haven CT

1817-1855 - Transylvania U, Lexington KY

1818-1861 - Castleton Medical College VT

1819 - Medical College of Ohio, Cincinnati OH [*U Cincinnati*]

1820-1921 Bowdoin College, ME

1823-1867 - Berkshire Medical Institution, Springfield MA

1823-1832 - Medical College of SC, Charleston SC

1824 - Jefferson College, Philadelphia PA

1825 - Columbian College, Washington DC [*George Washington U*]

1828 - University of Virginia, Charlottesville VA

1828 - Medical Academy of Georgia, Augusta GA [*U Georgia*]

1832 - Medical College State SC, Chaleston SC [*Med U SC*]

1834 - Medical College of Louisiana, New Orleans LA [*Tulane U*]

1835 - Geneva College, Syracuse NY [*SUNY Upstate*]

1837 - Louisville Medical Insitute, Louisville, KY [*U Louisville*]

1838 - Albany Medical College, Albany NY

1838 - Hampden-Sydney College, Richmond VA [*VA Comm U*]

1841 - University City New York, NYC [*NYU School Medicine*]

1842 - St. Louis University, St. Louis MO [*Washington U*]

1843 - Rush Medical College, Chicago

1846 - U Buffalo

1850 - U Iowa, Keokuk

1850 - U Michigan, Ann Arbor

1855 - Atlanta Medical College (*Emory*)

1858 - U. Pacific, San Francisco (*Stanford*)

1859 - Chicago Medical College (*NWU*)

1860 - Long Island College Hospital, Brooklyn, NY (*SUNY Downstate*)

1861 - Bellevue Hospital Medical College, NY

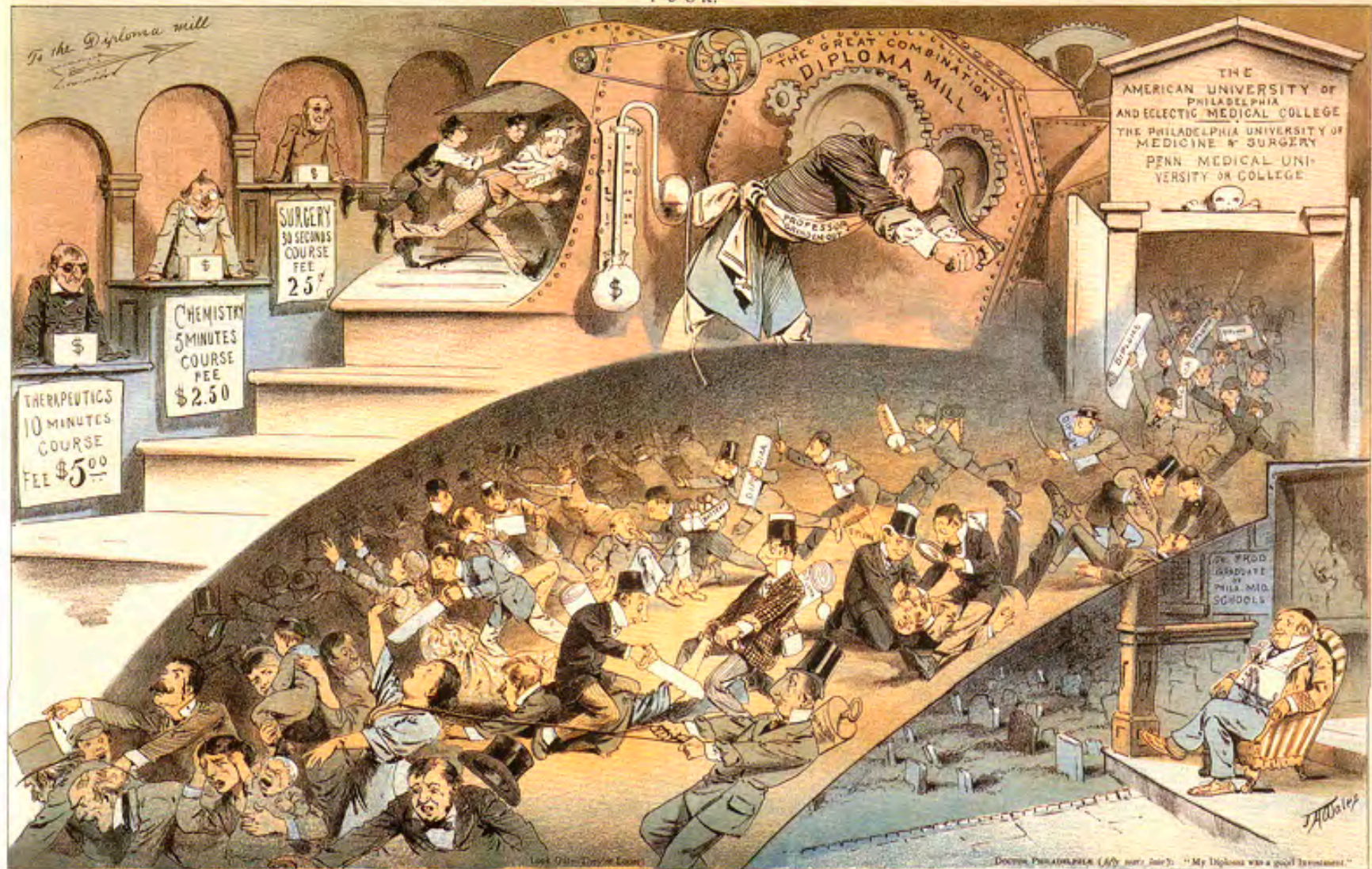
1864 - Toland Medical College, San Francisco (*UCSF*)

1850





PUCK.



THE PHILADELPHIA PHYSICIAN-FACTORY.

[illegible]

Population Growth

	1820	1850	1880
NYC	123,706	515,547	1,200,000
Philadelphia	63,802	121,000	875,000
Baltimore	62,738	169,054	332,000
Boston	43,298	136,881	363,000
New Orleans	27,176	116,375	216,000
Charleston	24,780		
Washington	13,247		
Cincinnati		115,435	255,000
Brooklyn NY		96,838	567,000
St. Louis		77,860	350,000
Albany NY		50,763	
Chicago			503,000
San Francisco			234,000

OB-GYN Teaching in USA

- Until 20th Century, most births at home, attended by local women with no formal training. “Lying-In” wards in large cities for indigent and unwed mothers.
- Teachers were generalists who might have obtained some training in Europe. They earned their living from private practice, and lecture fees.
- Midwifery teaching was mostly theoretical, using manikins.
- The Faculties of early American medical schools were small, changed frequently, with professors teaching multiple subjects.

-Until the mid-1800s, Midwifery was frequently taught by the professor of Botany/Materia Medica, or Medical Jurisprudence.

-Between 1850-1890, professorial titles used combinations of “Obstetrics and Medical/Surgical Diseases of Women and Children”.

--Until the late 1800s, American OBS teaching and practice reflected the work of European authorities, especially from France, Great Britain, and Ireland.



Germany
Holland

France

Great Britain

Italy

138 Soranos

1513 Rösslin

1554 Rueff

1663 van Roonhuyze

1690 Siegemundin

1701 van Deventer

1551 Paré

1609 Bourgeois

1612 Guillemeau

1668 Mauriceau

1668 Peu

1685 Portal

1722 de la Motte

1753 Levret

1775 Baudelocque

1540 Raynalde

1651 Harvey

1725 Maubray

1733 Chapman

1734 Giffard

1741 Ould

1752 Smellie

1760 Nihell

1768 Denman

1772 White

1774 Hunter W.

Modern Obstetrics ---the systematic observation and reporting of normal and abnormal labor--- began in Paris with Ambroise Paré.

This was possible because of the Hôtel-Dieu, a hospital founded between 600-800 AD. Physicians and Surgeons were admitted to its staff during the 1500s, and a school for Midwives established in the 1520s.



**Ambroise
PARÉ**
(1510-1590)



**Jacques
GUILLEMEAU**
(1550-1613)



Louise BOURGEOIS
(1563-1636)



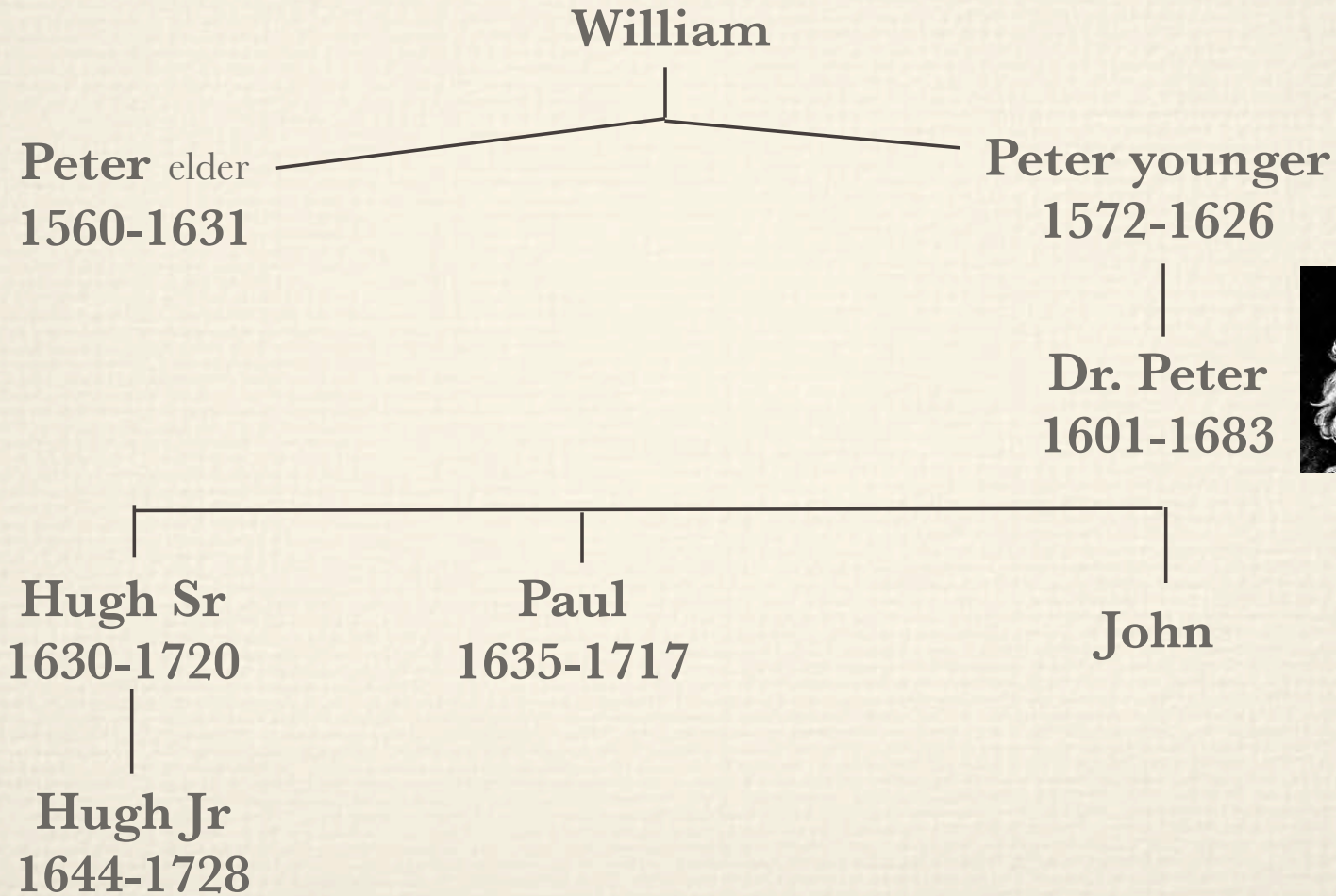
François MAURICEAU

(1637-1709)

**Les maladies des femmes
grosses et accouchées
1668**

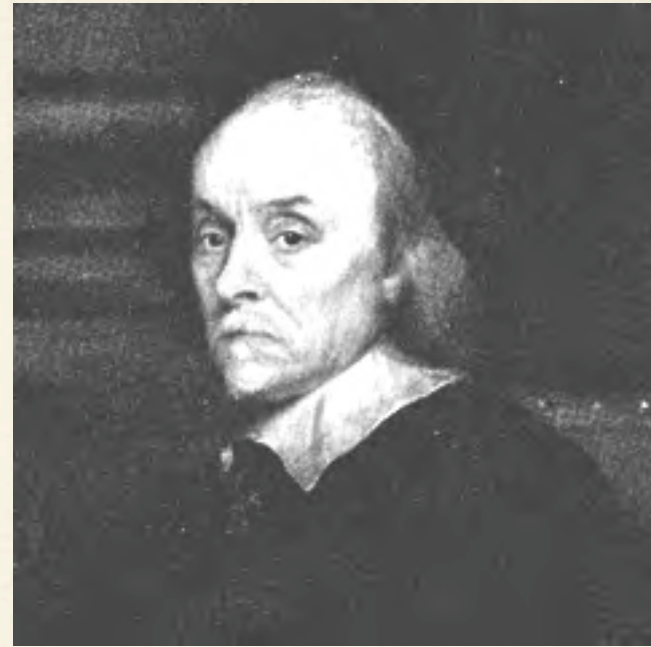


CHAMBERLEN



William HARVEY

(1578-1657)



De Generatione Animalium
1651

De Partu was the 1st original English
work on Obstetrics





Hendrik van DEVENTER
(1651-1724)

A New Light
1701

THE ART OF MIDWIFERY IMPROV'D.

Fully and Plainly laying down
Whatever INSTRUCTIONS are
requisite to make a Compleat MIDWIFE.

AND
The many ERRORS in all the Books hitherto
written upon this SUBJECT clearly refuted.

ILLUSTRATED
With 38 CUTS curiously Engraven on COPPER
PLATES, representing in their due Proportion, the
several Positions of a *Fœtus*.

ALSO
A New Method, Demonstrating, *How Infants ill situated in the
Womb, whether obliquely, or in a strait Posture, may, by the
Hand only, without the Use of any Instrument, be turned
into their right Position without hazarding the Life either
of Mother or Child.*

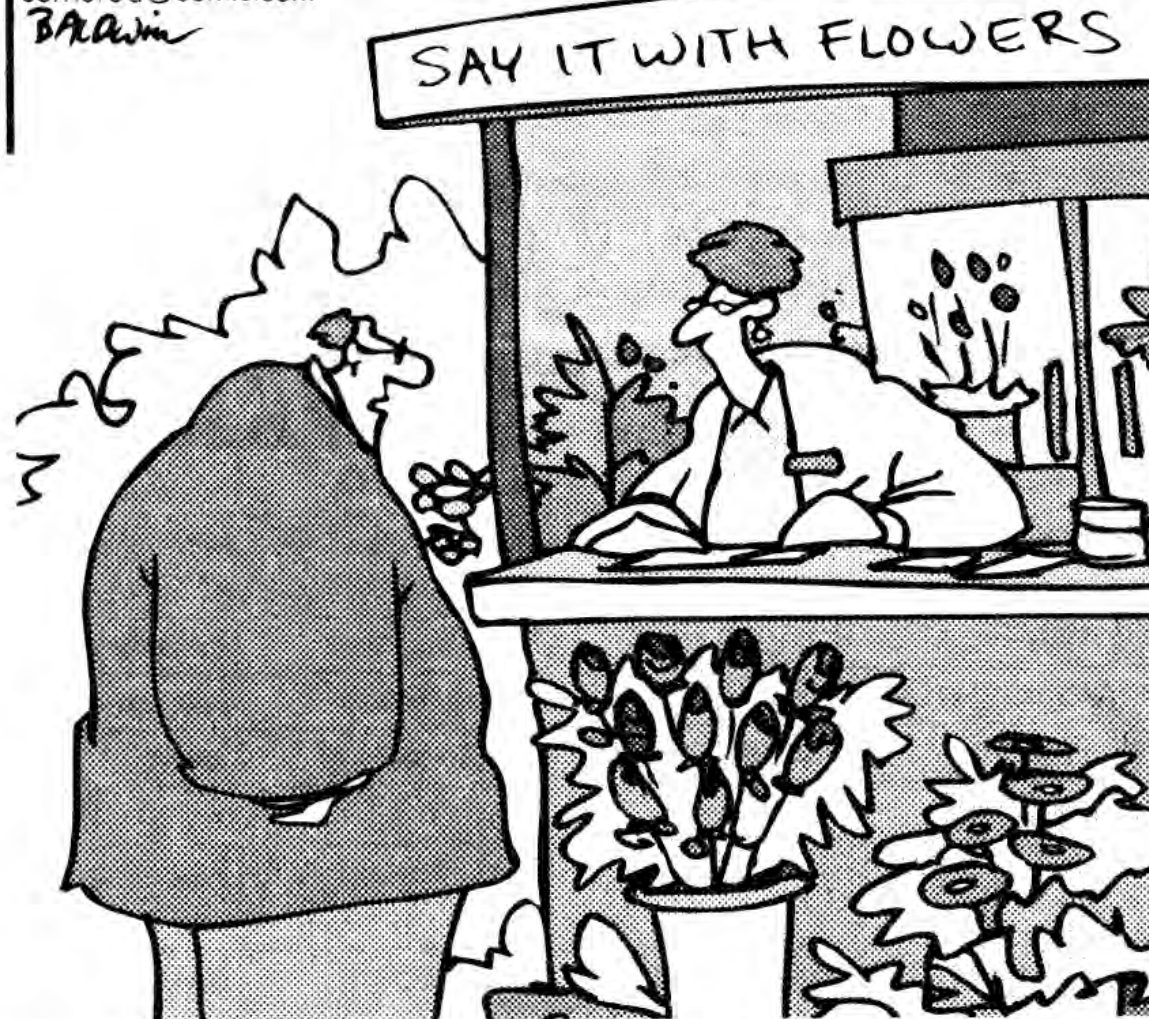
Written in Latin by HENRY DEVENTER. Made
English. To which is added, A Preface giving some Ac-
count of this Work, by an Eminent Physician.

LONDON:
Printed for E. CURRIE, at the Dial and Bible, J. PEMBERTON at the
Buck and Sun, both against St. Dunstons-Church in Fleet Street,
and W. TAYLOR, at the Ship in Pater-Noster-Row. 1716. PR. 6 s.

CORNERED

9-17 © 2005 Mike Baldwin / Dist. by Universal Press Syndicate www.cornered.com
cornered@comic.com

Baldwin



"Something that says I'm sorry without
admitting liability."

William SMELLIE (1697-1763)



Born in Lanarkshire, Scotland;
trained in Glasgow and Paris.

Taught and practiced midwifery
in London; developed a manikin.

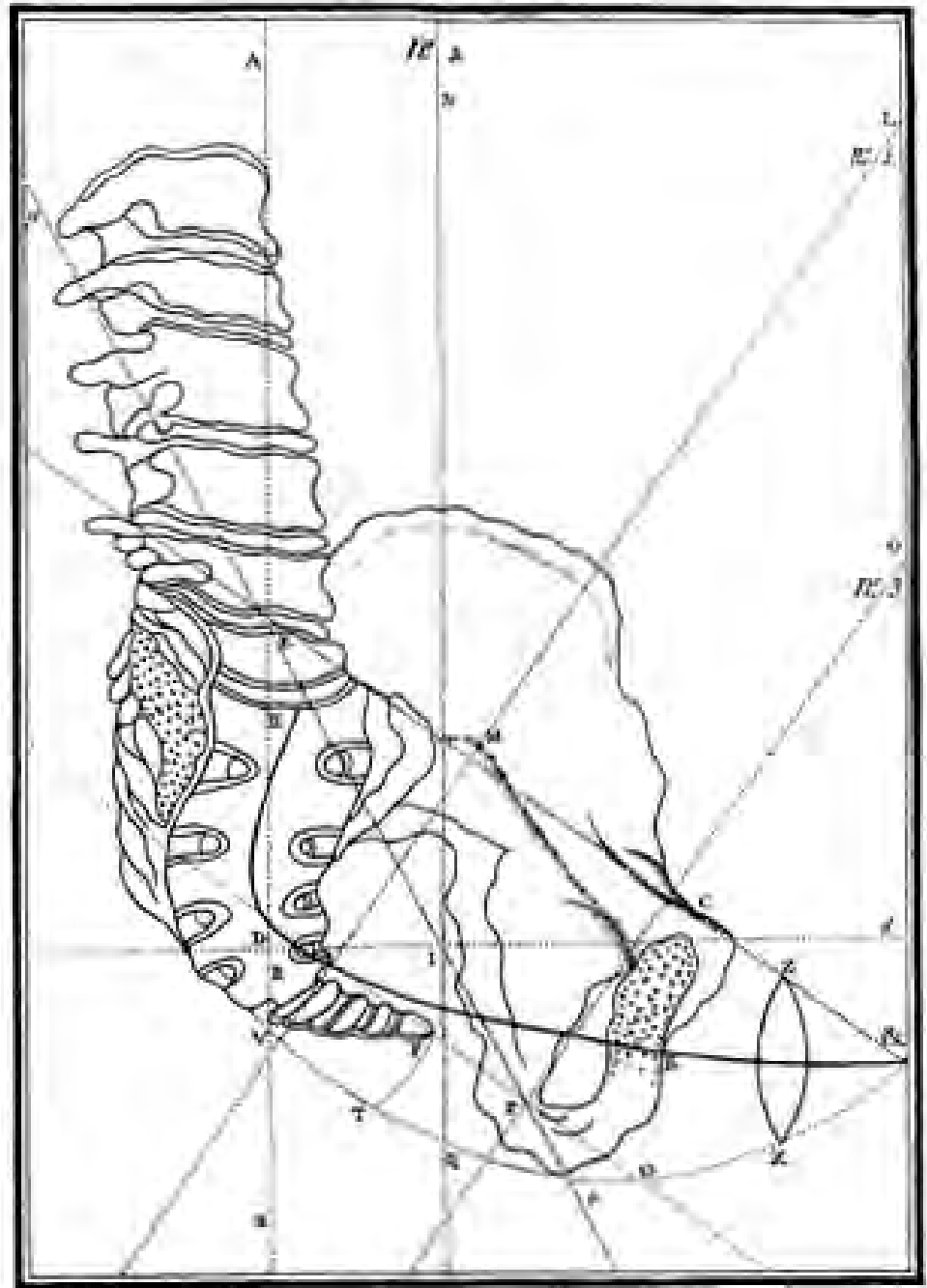
Through books and students, the
most influential OB in England.

Described in detail mechanism
of labor, improved forceps.



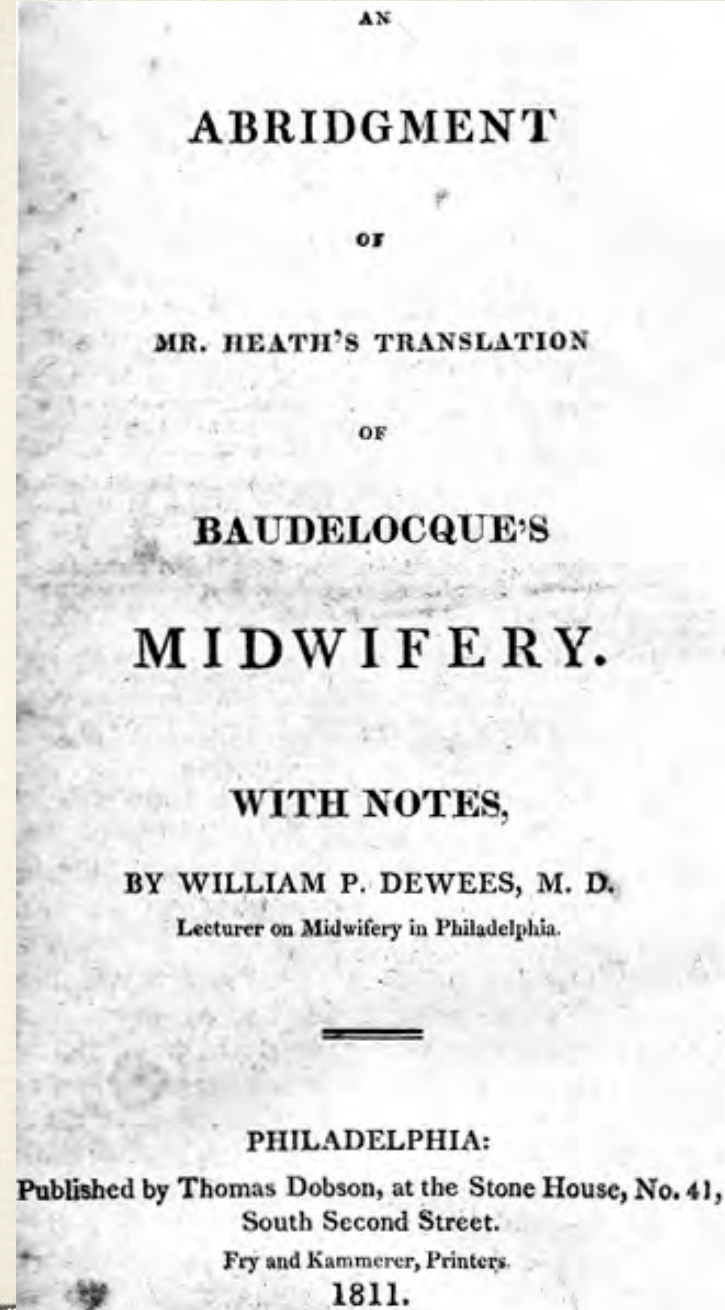
André LEVRET
(1703-1780)

L'Art des Accouchemens
1761



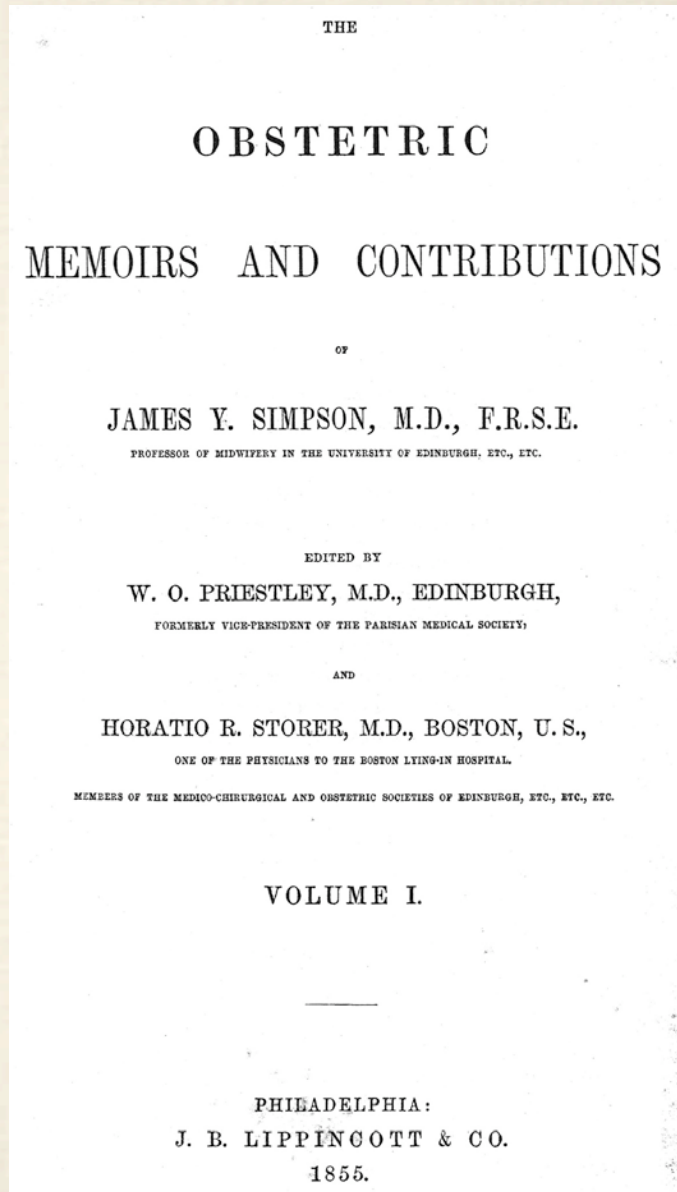


Jean-Louis BAUDELOCQUE
(1746-1810)



James Y. SIMPSON

(1811-1870)





Charles WHITE
1728-1813



Thomas DENMAN
1733-1815



Fielding OULD
1773-1841



William S. PLAYFAIR
1836-1903

Obstetric Teaching USA

William SHIPPEN, Jr	1762 - Philadelphia
J. V. L. TENNENT	1768 - King's College, NY
Samuel BARD	1768 - King's College, NY
Nathan SMITH	1797 - Dartmouth
Thomas C. JAMES	1802 - Philadelphia
William P. DEWEES	1802 - Philadelphia
Nathan SMITH	1810 - Yale
John B. DAVIDGE	1812 - U Maryland
Walter CHANNING	1815 - Harvard

William SHIPPEN, Jr. (1736-1808)

Born Philadelphia. MD Edinburgh 1761.
From 1762-65, he taught a 20-lecture course on midwifery *and conclude the whole with necessary cautions against the dangerous and cruel use of instruments.*

He also ran a makeshift “hospital”: *In order to make this course more perfect, a convenient lodging is provided for the accommodation of a few poor women, who otherwise might suffer for want of the common necessities on these occasions...*



A
COMPENDIUM
OF THE THEORY AND PRACTICE
OF
MIDWIFERY,
Containing
PRACTICAL INSTRUCTIONS FOR THE MANAGEMENT OF
WOMEN
DURING PREGNANCY, IN LABOUR, AND IN CHILD-BED;
Calculated
To correct the Errors, and to improve the Practice, of
MIDWIVES;
As well as to serve as an Introduction to the
STUDY OF THIS ART,
For
STUDENTS AND YOUNG PRACTITIONERS.

By SAMUEL BARD, M. D.

NEW-YORK:
PRINTED AND SOLD BY COLLINS AND PERKINS,
NO, 189, PEARL-STREET.

1807.



Samuel Bard (1742-1821)

Co-founder King's College

1st American Textbook OBS;
5 editions

Published 1807 after retirement

Thomas C. JAMES (1766-1835)

MD U Penn 1787

1790-92 London/
Edinburgh

1802, OBS lectures

1st Prof Midwifery U
Penn 1810-1834



A
COMPENDIOUS SYSTEM
OF
MIDWIFERY,
CHIEFLY DESIGNED TO FACILITATE THE
INQUIRIES
OF THOSE WHO MAY BE PURSUING THIS BRANCH OF STUDY.

ILLUSTRATED BY OCCASIONAL CASES.

WITH THIRTEEN ENGRAVINGS.

SECOND EDITION, WITH ADDITIONS, &c.

BY WM. P. DEWEES, M. D.

ADJUNCT PROFESSOR OF MIDWIFERY IN THE UNIVERSITY OF PENNSYLVANIA,
MEMBER OF THE AMERICAN PHILOSOPHICAL SOCIETY, &c. &c.

PHILADELPHIA:

H. C. CAREY & I. LEA, CHESNUT STREET.

1826.

William P. DEWEES
(1768-1841)





Walter CHANNING 1786-1876

MD U. Penn 1809

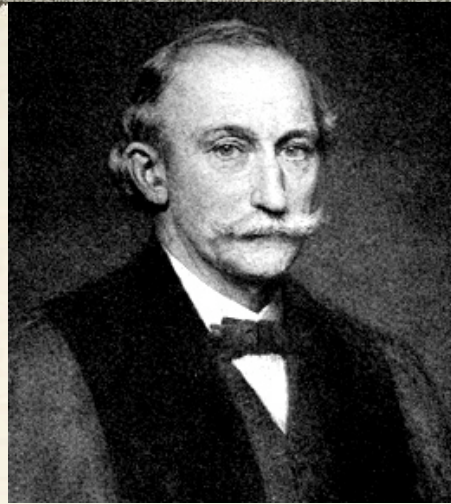
Edinburgh/London 1809-12

OBS Harvard 1815-

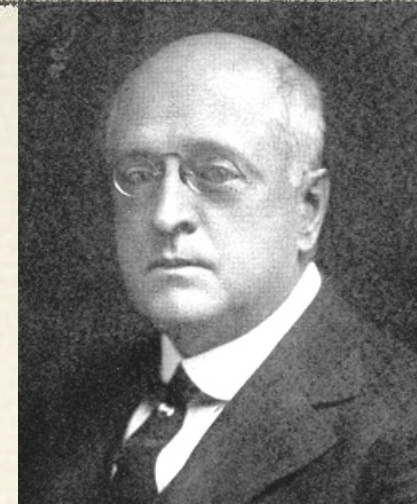
Founded Boston Lying-In
1847 Ether in Childbirth



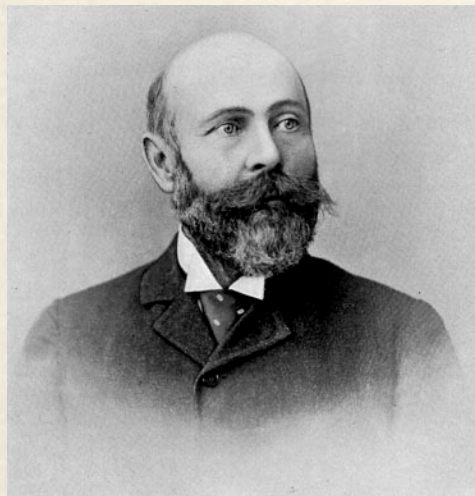
Hugh L. HODGE
(1796-1873)



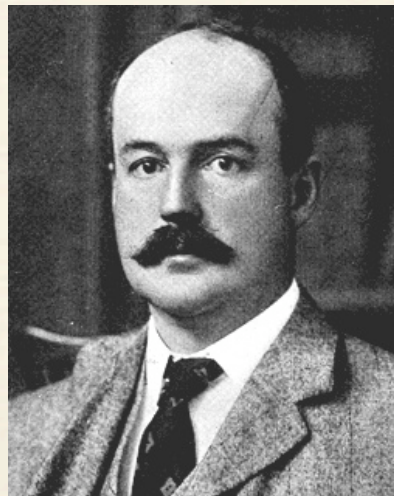
Richard A. PENROSE
1827-1908



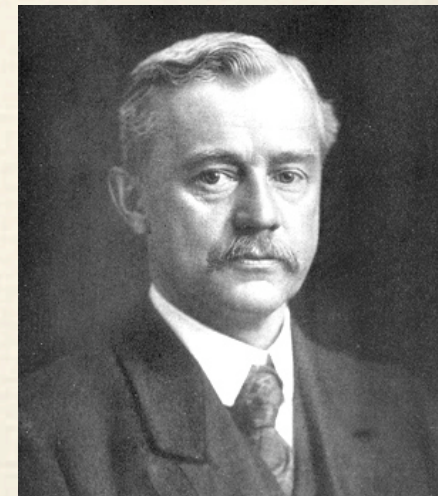
Barton C. HIRST
1861-1935



William GOODELL
1829-1894



Charles B. PENROSE
-1925



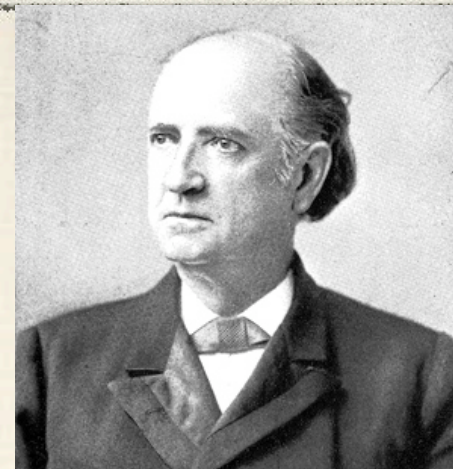
Howard A. KELLY
1858-1943



Charles D. MEIG
(1792-1869)
Chair 1841-61



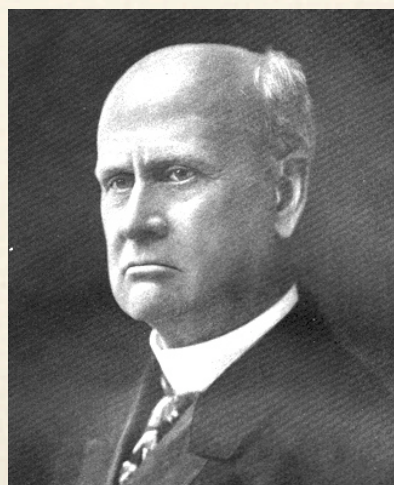
Ellerslie WALLACE
(1819-1885)
Chair 1862-1883



Theophilus PARVIN
(1829-1898)
Chair 1883-1898



Edward P. DAVIS
(-1938)
OBS 1898-1925



Edward E. MONTGOMERY
(-1927)
GYN 1898-1927

Demonstrative Midwifery



James Platt WHITE
(1811-1881)

-MD Jefferson 1834

-1846 co-founder Med Dept U
Buffalo

-1850, delivered a patient before
medical class.

*...we deem it wholly unnecessary
for the purpose of teaching
unprofessional in manner, and
grossly offensive alike to morality
and common decency.*

A TREATISE
ON THE
THEORY AND PRACTICE
OF
OBSTETRICS.

BY
WM. H. BYFORD, A.M., M.D.,

PROFESSOR OF OBSTETRICS AND DISEASES OF WOMEN AND CHILDREN IN THE CHICAGO MEDICAL
COLLEGE, ETC., ETC.; AUTHOR OF THE PRACTICE OF MEDICINE AND SURGERY APPLIED TO
THE DISEASES AND ACCIDENTS INCIDENT TO WOMEN; CHRONIC INFLAMMA-
TION OF THE UNIMPREGNATED UTERUS, ETC., ETC.

SECOND EDITION; THOROUGHLY REVISED.



NEW YORK:
WILLIAM WOOD & CO., 27 GREAT JONES STREET.
1873.



William H. BYFORD(1817-1890)
MD Ohio Med Coll 1845
Chicago Med Coll 1859-79

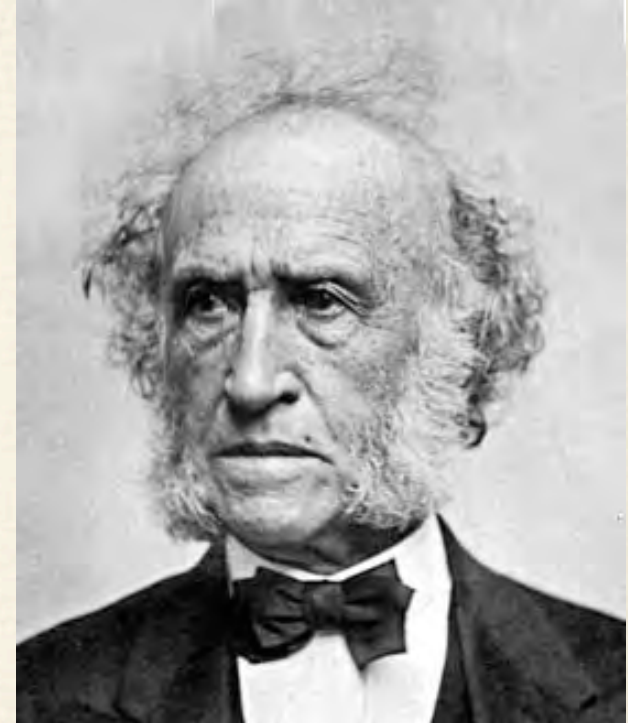
Marmaduke B. WRIGHT

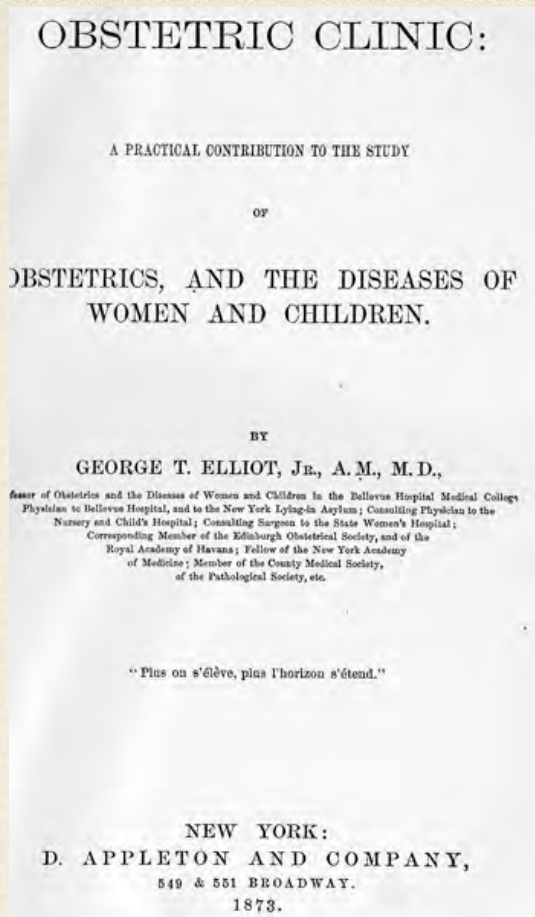
(1803-1879)

MD U Penn

1838 Prof OBS Dis Women
Ohio Med Coll, Cincinnati

1854 *Difficult Labors and their Treatment*
This described a technique of version
now usually associated with Braxton-
Hicks.





George T. Elliot(1828-1871)
MD U City NY 1849
Intern Rotunda 1849-50
Prof OBS DWC Bellevue
1861-71

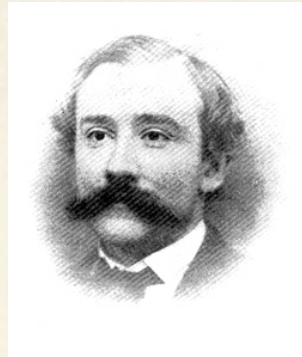


Woman's Hospital of the State of New York - 1855



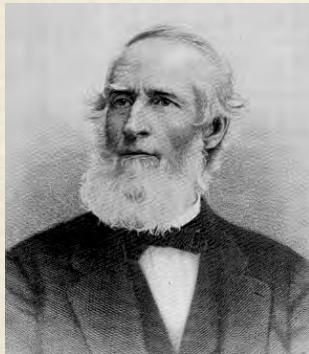
J. Marion SIMS
Jefferson 1835

1813-1883



Thomas A. EMMET
Jefferson 1850

1828-1919



Edmund R.
PEASLEE
Yale 1840

1814-1878



T. Gaillard THOMAS
Med Coll SC 1852

1831-1903

**A Genealogy of American
Obstetrics and Gynecology**
The Early Years: 1750-1870

Ronald M. Cyr MD, FACOG

Key Moments in the History of OB/GYN
CTP39

Tuesday, May 8, 2007 2:30-4:00 p.m.
San Diego Convention Center
55th Annual Clinical Meeting, San Diego, CA

1

**The presenter has no financial
relationships with any
commercial interest relative to
the subject of this lecture.**

2

American Obstetrics and Gynecology

1750-1870: The Early Years

-100 years of medical teaching

1870-1930: A Specialty Develops

-GYN surgery; antiseptic midwifery
-German science: Johns Hopkins
-AGS/AAOG/ABOG

1930-1970: The Golden Years

-Hospital birth/Blood/Antibiotics

1970-Present: Wither OB/GYN?

-Subspecialty/Gender Impact
-Consumer movement

3



1750

4

I have no financial disclosures to make, no books to sell---at least , not yet.

When I undertook this project, it soon became apparent that I had vastly underestimated the magnitude of the task. Dozens of 1-hour presentations could be given on individuals and events in our profession, the number increasing exponentially as we approach modern times. In a panorama such as this one, it seemed desirable to divide American OB/GYN history into more manageable bites.

In 1750, the British colonies occupied a small part of the NA continent East of the Appalachians. The predominantly rural population numbered 1.35M: 900,000 Europeans, 250,000 Africans, 200,000 Native Americans. Philadelphia, the largest, and most “enlightened” city in the colonies, had only 15,000 residents.

Midwifery in Colonial Times



5

This is a popular depiction of a typical home birth in the colonies. The husband is holding his wife, while local women assist with the birth.

Prejudice against men-midwives

You shall be secret, and not open any Mystery appertaining to your office, in the presence of any Man, unless Necessity or great urgent Cause do constrain you to do so.

NYC 1738 law for regulating midwives



6

The opposition to men-midwives was based, foremost, on the purported impropriety of men inspecting the genitals of the opposite sex. This opinion was widespread even within medical circles until late in the 19th century, and inhibited both teaching and research in this area. (see "Demonstrative Midwifery"). The other reason was the alleged abuse of instruments by male practitioners.

Early Men-Midwives in the USA

John MOULTRIE

Charleston, SC 1733-83. At his death Several of the ladies of Charleston bedewed his grave with tears and went into mourning on the occasion.

James LLOYD (1726-1810)

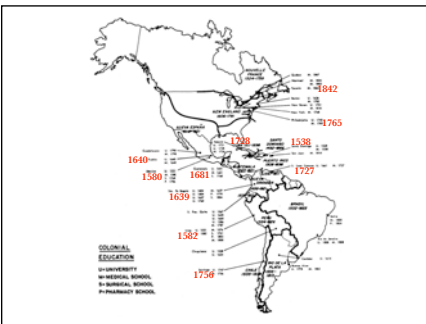
Boston, apprenticed in Boston; 4 years in London, received OB training from William Smellie and William Hunter.

John DUPUY (? - 1745)

Obituary in a NY newspaper: *Last night died, in the prime of life, to the almost universal regret and sorrow of this city, Mr. John Dupuy, M.D., man-midwife...*

7

Notwithstanding popular feelings about men-midwives, their employment had become commonplace among the nobility of Europe, if only as back-up to the usual midwife. The upper classes in larger Colonial cities followed the European fashion of hiring men-midwives. A few became very successful, and their names survive.



8

Unlike the Spanish-American colonies, where medical schools were established as early as 1538 in Santo Domingo, there were no medical schools in the British Colonies until 1765 (College of Philadelphia).

College of Philadelphia 1765-1791



John Morgan 1735-1789
Theory and Practice of Physick



William Shippen Jr. 1736-1808
Anatomy, Surgery and Midwifery



Adam Kuhn 1741-1817
Materia medica, Theory and Practice of Medicine



Benjamin Rush (1746-1813)
Chemistry, Theory and Practice of Medicine



Caspar Wistar (1761-1818)
Chemistry, Anatomy, Midwifery and Surgery

9

Medical Faculty; from 1779-1791 there existed a University of the State of Pennsylvania; merged with the College to form the U of Pennsylvania in 1791.

King's College, NY (1767-1774)

Samuel CLOSSY (Dublin 1751)
Anatomy

Samuel BARD (Edinburgh 1765)
Medicine

John JONES (Rheims 1751) Surgery

Peter MIDDLETON (St Andrews 1752)
Pathology

John V. TENNENT (Leyden) Midwifery



BARD(1742-1821)

10

Disrupted during Revolutionary War. Reconstituted as Columbia College until 1813, when the medical faculty was absorbed by the College of Physicians and surgeons NY (founded in 1807). Nominally re-affiliated with Columbia College 1860-1891. CPS formally integrated into Columbia University in 1891.

US Edinburgh Medical Alumni

William SHIPPEN Jr. (1736-1808)	1761 - U. Penn
John MORGAN (1735-1789)	1763 - U. Penn
Samuel BARD (1742-1821)	1765 - NY
Adam KUHN (1741-1817)	1767 - U. Penn
Benjamin RUSH (1745-1813)	1769 - U. Penn
Benjamin WATERHOUSE (1754-1846)	1776 - Harvard
Caspar WISTAR (1760-1818)	1786 - U. Penn
Philip S. PHYSICK (1768-1837)	1792 - U. Penn
David HOSACK (1769-1835)	1792 - NY
Ephraim McDOWELL (1771-1830)	1793 - Kentucky
Nathan SMITH (1762-1829)	1796 - Dartmouth
Valentine MOTT (1785-1865)	1807 - NY

11

The medical school in Philadelphia reflected the Edinburgh model, and the six most prominent members of its Faculty until the early 1800s all trained in Edinburgh

Philadelphia & Edinburgh 1750

Philadelphia was the largest and most cultured city in British N.A.

Benjamin Franklin had co-founded a College and a Hospital.

Edinburgh was at the center of the "enlightenment" movement, and a ferment of intellectual activity: "Athens of the North"

Its Medical school was considered to be the best in the world until overshadowed in the 19th century by France, and later Germany.

12

It was no co-incidence that the founders of the first medical schools in the USA (Philadelphia) trained in Edinburgh.

University of Edinburgh

1558 Elizabeth I
1560 Scottish Reformation
1572 St Bartholomew
1582 U. Edinburgh
1620 Mayflower



1685 Medical School
1707 Act of Union
1726 Medical Faculty
1729 Royal Infirmary

1652 Pitcairne A.
1668 Boerhaave H. (Leyden)
1698 Munro A. *Primus*
1710 Cullen W.

In 1750, the Medical School at Edinburgh was considered to be the finest in the world. The Leyden school, under Boerhaave, emphasized bedside teaching and became a model for the rest of Europe. John Munro, who trained in London and Leyden, became the first Chair of Anatomy and Surgery at Edinburgh in 1721; he was succeeded by his son, and grandson --- a dynasty lasting until 1846. William Cullen, although Glasgow-trained, became the most popular teacher of medicine in Edinburgh and had a great influence on early colonial physicians who established medical schools in Philadelphia, New York, and Boston.

13

1787



French land acquired by the British during the Seven Years' war (1756-1763) became territories of the original 13 States after the revolutionary War (1775-1783). A 3rd medical school was founded in 1783 at Harvard College in Cambridge, MA.

14

1803



In 1803, the size of the US more than doubled with the Louisiana purchase. The Frontier moved West, new settlements forming along major waterways: the OHIO, and MISSISSIPPI rivers. 4 new states had joined the Union (VT, KY, TN, OH). Dartmouth Medical School was founded in 1797 by Nathan Smith ---one of 4 medical schools he would start (Dartmouth, Yale, Bowdoin College, U Vermont)

15

1821



By 1821, 7 new States had joined the Union.(LA, IN, MI,IL,AL,ME,MO). New medical schools 1811-1828 Brown U RI, 1812-1841 CPS Western District NY in Fairfield (near Utica); in 1841 merged partly into Geneva Coll (Syracuse) and Albany Coll (Albany); 1818-1861 Castleton Med Acad VT; 1819- Med Coll OH, Cincinnati;1820-1921 Bowdoin Coll ME.

16

Medical School Expansion

Graduates of the first medical schools competed with their professors for paying patients.

Economic incentive pushed doctors to new towns. The more enterprising founded their own schools, earning fees from students.

17

Nathan SMITH(1762-1829)

MD Harvard 1790

Edinburgh/Glasgow/
London 1796-7

Founded Medical
Schools (Dartmouth
1791, Yale 1810, Bowdoin
College 1820, Vermont
1822)



18

He taught all the subjects at Dartmouth until 1807.

Some Notable Medical School Founders

Benjamin W. DUDLEY (1785-1870) MD U Penn 1806
Transylvania U, Lexington KY 1817-1855



Daniel DRAKE (1785-1852) MD U Penn 1818
Medical College of Ohio, Cincinnati 1819-
Cincinnati Medical College 1834-46

Gunning S. BEDFORD (1806-1870) MD CPS NY 1829
University City NY 1841



James Platt WHITE (1811-1881) MD Jefferson 1834
U of Buffalo 1846 (with Austin FLINT)

19



20

Between 1825-1860, numerous canals were built to link the great lakes to inland rivers that drained to the sea. The first of these was the Erie Canal, linking lake Erie, near Buffalo, to the Hudson river at Albany NY. This allowed Syracuse, Rochester, and Buffalo to prosper. Today 80% of the population of Upstate NY lives within 25 miles of the old canal.

1783 - Harvard College, Cambridge MA
 1787-1816 - *Queen's College NY*
 1791 - University of Pennsylvania, Philadelphia PA
 1797 - Dartmouth College, Hanover NH
 1807 - College of Physicians and Surgeons NYC [*Columbia U*]
 1807 - College of Maryland, Baltimore MD [*U Maryland*]
 1811-1828 - *Brown U RI*
 1812-1841 - *CPS Western District, Fairfield NY*
 1812 - Yale College, New Haven CT
 1817-1855 - *Transylvania U, Lexington KY*
 1818-1861 - *Castleton Medical College VT*
 1819 - Medical College of Ohio, Cincinnati OH [*U Cincinnati*]
 1820-1921 *Bowdoin College, ME*
 1823-1867 - *Berkshire Medical Institution, Springfield MA*

21

1823-1832 - *Medical College of SC, Charleston SC*
 1824 - Jefferson College, Philadelphia PA
 1825 - Columbian College, Washington DC [*George Washington U*]
 1828 - University of Virginia, Charlottesville VA
 1828 - Medical Academy of Georgia, Augusta GA [*U Georgia*]
 1832 - Medical College State SC, Charleston SC [*Med U SC*]
 1834 - Medical College of Louisiana, New Orleans LA [*Tulane U*]
 1835 - Geneva College, Syracuse NY [*SUNY Upstate*]
 1837 - Louisville Medical Institute, Louisville, KY [*U Louisville*]
 1838 - Albany Medical College, Albany NY
 1838 - Hampden-Sydney College, Richmond VA [*VA Comm U*]
 1841 - University City New York, NYC [*NYU School Medicine*]
 1842 - St. Louis University, St. Louis MO [*Washington U*]

22

1843 - Rush Medical College, Chicago
 1846 - U Buffalo
 1850 - U Iowa, Keokuk
 1850 - U Michigan, Ann Arbor
 1855 - Atlanta Medical College (*Emory*)
 1858 - U. Pacific, San Francisco (*Stanford*)
 1859 - Chicago Medical College (*NWU*)
 1860 - Long Island College Hospital, Brooklyn, NY (*SUNY Downstate*)
 1861 - Bellevue Hospital Medical College, NY
 1864 - Toland Medical College, San Francisco (*UCSF*)

23



24

The opening of new medical schools followed the growth of the population, as well as the number of doctors. There were many medical schools of a transient nature. Then, as now, personalities played a major role in the success or failure of such schools.

Following 1836 Texas Revolution, US awarded Statehood in 1845; Mexico did not recognize and war ensued, ending in the further acquisition of California and New Mexico. The Gold Rush of 1849 turned San Francisco into a boom town, a trend accelerated by completion of the transcontinental railroad in 1869. The number of medical schools multiplied.



25

1820s-1870 Railroad network; transcontinental completed in 1869. Chicago becomes a major city in late 1800s;



26

U Iowa (Keokuk) 1850; 1858 Med Dept U Pacific, became Stanford's Med School in 1908; UCSF began as Toland Med Coll 1864; Galveston 1873

Population Growth			
	1820	1850	1880
NYC	123,706	515,547	1,200,000
Philadelphia	63,802	121,000	875,000
Baltimore	62,738	169,054	332,000
Boston	43,298	136,881	363,000
New Orleans	27,176	116,375	216,000
Charleston	24,780		
Washington	13,247		
Cincinnati		115,435	255,000
Brooklyn NY		96,838	567,000
St. Louis		77,860	350,000
Albany NY		50,763	
Chicago			503,000
San Francisco			234,000

27

OB-GYN Teaching in USA
-Until 20th Century, most births at home, attended by local women with no formal training. "Lying-In" wards in large cities for indigent and unwed mothers.
-Teachers were generalists who might have obtained some training in Europe. They earned their living from private practice, and lecture fees.
-Midwifery teaching was mostly theoretical, using manikins.
-The Faculties of early American medical schools were small, changed frequently, with professors teaching multiple subjects.

28

Although instruction in Midwifery was available at the early medical schools, it was not a required subject for graduation until 1813 in Philadelphia. There was a Lying-In ward within the Pennsylvania Hospital from 1803-1854; it was frequently closed because of outbreaks of puerperal fever; during its 53 years, only 1,397 women were delivered --an average 2 per month, with an average maternal mortality of 5%---4 X higher than in the community. Nathan Smith, founder of medical schools at Dartmouth(1797), Yale(1810), Bowdoin College(1820), Vermont(1822), taught all the subjects at Dartmouth from 1797-1807.

-Until the mid-1800s, Midwifery was frequently taught by the professor of Botany/Materia Medica, or Medical Jurisprudence.

-Between 1850-1890, professorial titles used combinations of "Obstetrics and Medical/Surgical Diseases of Women and Children".

--Until the late 1800s, American OBS teaching and practice reflected the work of European authorities, especially from France, Great Britain, and Ireland.

29



30

<u>Germany</u> <u>Holland</u>	<u>France</u>	<u>Great Britain</u>	<u>Italy</u>
1513 Röslin		1540 Raynalde	1538 Soranus
1554 Rueff	1551 Paré		1596 Mercurio
	1609 Bourgeois		
	1612 Guillemeau	1651 Harvey	
1663 van Roonhuyze	1668 Mauriceau		
	1668 Peu		
1690 Siegemundin	1685 Portal		
1701 van Deventer			
	1722 de la Motte	1725 Maubray	
		1733 Chapman	
		1734 Giffard	
		1741 Ould	
		1752 Smellie	
	1753 Levret	1760 Nihell	
		1768 Denman	
		1772 White	
	1773 Baudelocque	1774 Hunter W.	

31

A time-line of influential obstetricians and their books in Europe before 1800. The 1st American book on Midwifery was written by Samuel BARD in 1807.

Modern Obstetrics ---the systematic observation and reporting of normal and abnormal labor--- began in Paris with Ambroise Paré.

This was possible because of the Hôtel-Dieu, a hospital founded between 600-800 AD. Physicians and Surgeons were admitted to its staff during the 1500s, and a school for Midwives established in the 1520s.

32



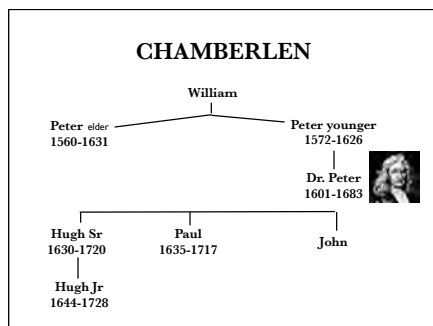
33

PARÉ best known as a surgeon, but he revived the podalic version. His 1st publication, in 1551, was entitled *Une brève collection anatomique*; at the end, a chapter La manière de extraire les enfans tant morts que vivans hors le ventre de la mère lorsque Nature de soy ne peult venir à son effet. His student GUILLEMEAU popularized the version, and described it in his textbook, published p.h. by his son. Louise BOURGEOIS was married to surgeon Martin BOURSIER, another pupil of Paré; she was midwife to the court of Henry IV for 26 years, delivering the future Louis XIII.



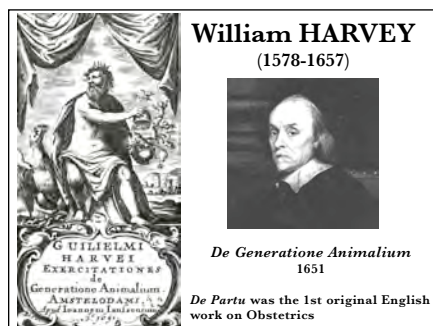
34

Mauriceau was the youngest and most famous of the PARÉ-school men-midwives (PORTAL, PEU). His textbook, translated into English by Hugh Chamberlen was very influential. He was among the first to observe differences between the male and female bony pelvis.



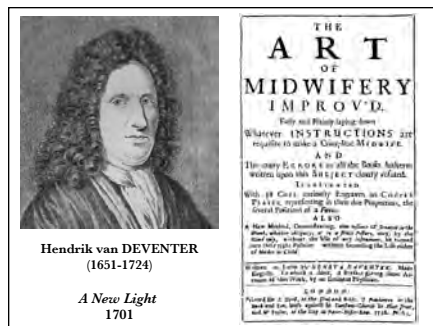
35

Last year, Dr Queenan reviewed the history of the Chamberlens. They re-invented a practical obstetric forceps, and served as men-midwives to the elite. They kept their forceps a “family secret” until the death of Hugh Jr. in 1728. By then, the “secret” was out; Chapman printed the first illustration of the forceps in 1733, and Giffard described his use of forceps in a post-humous collection of his cases in 1735.



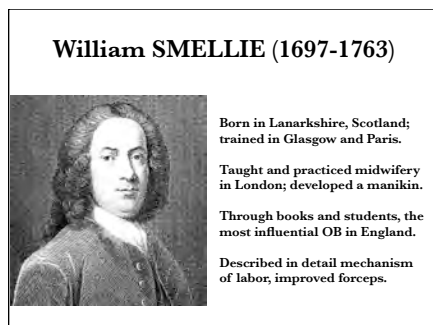
36

William Harvey studied anatomy in Padua; he is best-known for his discovery of human circulation. He was also physician to King Charles I of England. His 2nd major work discussed human embryology and birth. The chapter De Partu shows that he was familiar with the complications of parturition; his advice to trust Nature and avoid early intervention with instruments influenced British thinking about Obstetrics. His was the first original work on Obstetrics in the English language.



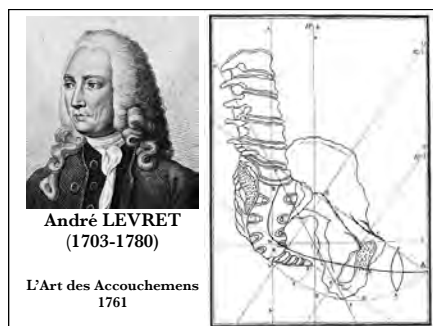
37

A Dutch man-midwife born in Leyden. Perhaps because of his training in orthopedics, he was the first obstetrician to emphasize the importance of the bony pelvis in obstetrics. He spoke of the “mechanism of labor”, but did not describe rotation. He discussed the diagnosis and management of placenta previa. Published in English in 1716. His emphasis on gentleness, and the use of the hand (vs instruments) was taken up by MAUBRAY in England (1725) and served as fodder in the ongoing polemic about the use vs abuse of forceps. Interestingly, the participants in this debate were also on opposite sides of the political spectrum Whigs vs Tories.



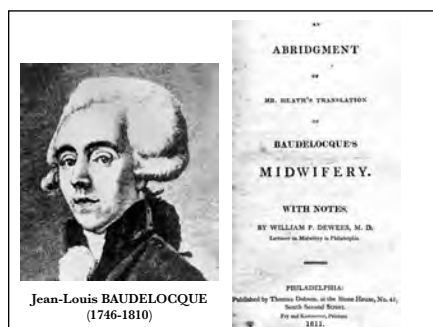
38

One of the prominent “Williams” from Lanarkshire, Scotland : William CULLEN (1710-1790) and William HUNTER (1818-1883) ----all linked professionally. Although he preached conservatism in his writings, his detractors ---the most famous, the midwife Elizabeth NIELL--- accused him and his less-trained pupils especially, of causing more harm than good with the forceps.



39

LEVRET applied the principles of mechanics to the problem of dystocia, amplifying on the work of DEVENTER. His work was not improved upon until the mid-1800, when MICHAELIS and later LITZMANN, in Kiel, Germany published their classic works on pelvic deformity. He designed a forceps with a pelvic curve.



40

Baudelocque perfected pelvic mensuration, especially in contracted cases. His work was translated into English; the 1st American edition was edited by Dewees of Philadelphia, and had much influence on American Obstetrics.

James Y. SIMPSON
(1811-1870)



41

The most influential British Obstetrician of the 19th century. Appointed Chair of Midwifery in Edinburgh, at the age of 28, outvoting Evory Kennedy, later master of the Rotunda in Dublin, and Robert Lee, of London. Best known for his use of anesthesia in OBS, and popularizing chloroform as an anesthetic. Horatio R. STORER, of Boston, spent a year at his house, and became the American editor of his works.



Charles WHITE
1728-1813



Thomas DENMAN
1733-1815



Fielding OULD
1773-1841



William S. PLAYFAIR
1836-1903

42

These men all wrote books on Midwifery; those of DENMAN and PLAYFAIR were especially successful in America. OULD was the 2nd Master of the Rotunda Lying-In hospital in Dublin, Ireland; he studied midwifery in Paris.

Obstetric Teaching USA

William SHIPPEN, Jr	1762 - Philadelphia
J. V. L. TENNENT	1768 - King's College, NY
Samuel BARD	1768 - King's College, NY
Nathan SMITH	1797 - Dartmouth
Thomas C. JAMES	1802 - Philadelphia
William P. DEWEES	1802 - Philadelphia
Nathan SMITH	1810 - Yale
John B. DAVIDGE	1812 - U Maryland
Walter CHANNING	1815 - Harvard

43

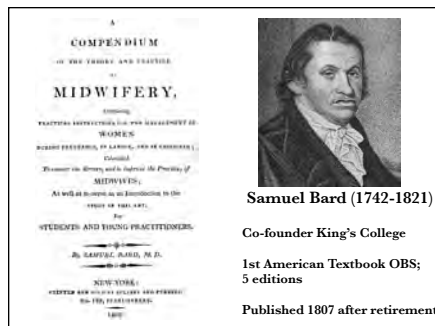
William SHIPPEN, Jr. (1736-1808)

Born Philadelphia. MD Edinburgh 1761. From 1762-65, he taught a 20-lecture course on midwifery and conclude the whole with necessary cautions against the dangerous and cruel use of instruments.

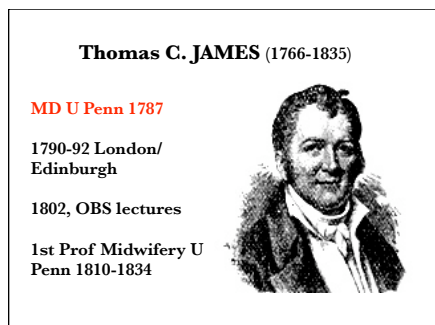
He also ran a makeshift "hospital": In order to make this course more perfect, a convenient lodging is provided for the accommodation of a few poor women, who otherwise might suffer for want of the common necessities on these occasions...



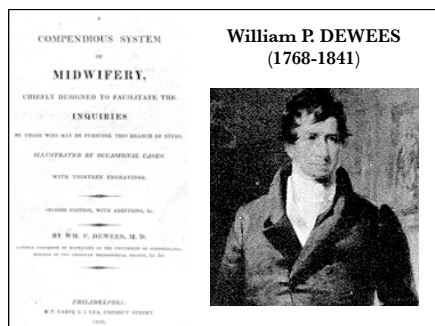
44



45



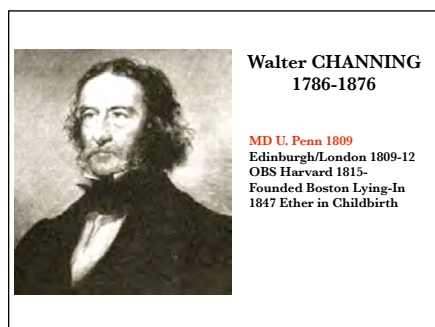
46



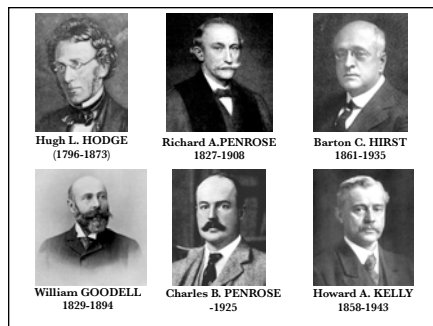
47

1813, edited BURNS' Principles of Midwifery; 1816, edited MERRIMAN's Synopsis of the Various Kinds of Difficult Parturition;

Deweese took lectures in Midwifery from Shippen at U. Penn, and developed a busy practice. Despite support from prominent U. Penn faculty such as RUSH and PHYSIK, Dewees was passed-over as the 1st Chair of Midwifery at the University in 1810, in favor of Thomas C. JAMES. He read the European texts, and was most impressed by BAUDELOCQUE, whose text he published in an abridged edition in 1807. After a few years away from Philadelphia, he returned and became the principal lecturer in Midwifery for the last 10 years of James' chairmanship, becoming himself Chair in 1834 before resigning with ill-health. In 1824, he published a remarkable treatise on Midwifery. He had a great influence on his successor HODGE, and MEIGS.



48



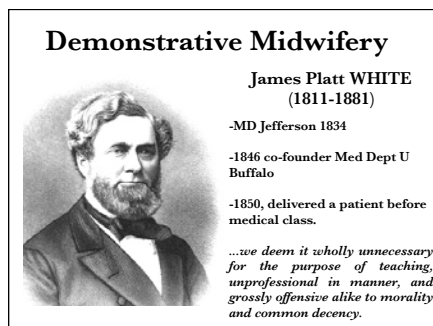
49

University of Pennsylvania chairs. HODGE was Prof Midwifery 1834-62; Richard PENROSE was Prof Obstetrics and Dis Women and Children 1863-88; GOODELL was Clinical Prof Dis Women and Children 1874-93; HIRST and KELLY were named joint associate professors of Obstetrics; Charles PENROSE was Prof GYN 1893-99. Williams called HODGE's "Principles and Practice of Obstetrics" 1860s, "the most original work which has appeared in America"



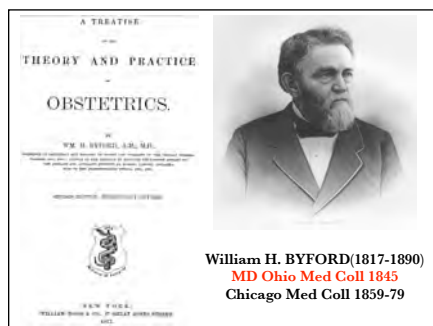
50

Jefferson Medical College Chairs. All were Philadelphia graduates. PARVIN, U. Penn 1852, was professor of obstetrics in Cincinnati 1855-1864, Louisville KY '64-'69, Indianapolis '76-'83 before returning to Philadelphia as head of OBS until 1898. He



51

WHITE sued the writer of the editorial, presumed to be a Dr. LOOMIS of Buffalo, for libel. The trial attracted a great deal of publicity across the nation.



52

Marmaduke B. WRIGHT
(1803-1879)

MD U Penn

1838 Prof OBS Dis Women
Ohio Med Coll, Cincinnati

1854 *Difficult Labors and their Treatment*
This described a technique of version
now usually associated with Braxton-
Hicks.



53



George T. Elliot (1828-1871)
MD U City NY 1849
Intern Rotunda 1849-50
Prof OBS DWC Bellevue
1861-71



54

Woman's Hospital of the State of New York - 1855



J. Marion SIMS
Jefferson 1835

1813-1883



Thomas A. EMMET
Jefferson 1850

1828-1919



Edmund R. PEASLEE
Yale 1840

1814-1878



T. Gaillard THOMAS
Med Coll SC 1852

1831-1903

55

SIMS pioneered the successful repair of VVF and achieved international fame. EMMET succeeded SIMS, and standardized vaginal and cervical plastic operations. PEASLEE was an early ovariectomist and published a classic work on the subject; in 1872 he was the 1st in the USA to occupy an academic chair in GYN (Dartmouth). THOMAS published a well-received textbook and was Prof at Bellevue, and later at the CPS/Columbia.