

Just as the objective of the pharmacist should be of service to his community, both as a pharmacist and a citizen, rather than the amassing of personal wealth, so the school of pharmacy should aim to be of service to the pharmacists and to the citizens of their city and state. The school should be a clearing house for pharmaceutical knowledge. Its library and its collections should be available to the pharmacists and the public. Its faculty should endeavor to help pharmacists with their problems and be able to take an active part in affairs. It should, in fact, be a center for things pharmaceutical.

Schools who train for leadership deserve our praise—honor to them! But intelligent followers are no less important than leaders. Unless the rank and file select their leaders wisely and support them effectively, good leadership is impossible.

Schools must prepare their students to be *pharmacists* rather than to prepare them "for pharmacy." This implies broadening the courses and giving them greater cultural value, and yet the young men and women who are graduated by the school and thereby stamped with its approval have the right to expect that they shall also be able to qualify for the practice of pharmacy by passing the state examination. This condition will continue so long as the examination given by the board of pharmacy is the standard whereby the qualification for practice is finally determined. It therefore becomes necessary for the schools to consider the nature and scope of these board examinations in shaping their courses.

Whatever standards are established for schools of pharmacy, their reputation will be fixed and their usefulness judged by their fruits—their alumni. So let us not bind them too closely by *material* standards, of buildings, of equipment, of libraries, important as these are, but let us also consider the use that is made of these advantages, the place which the school of pharmacy occupies in its community, the *esprit de corps* of its faculty and students, and the professional standing of its alumni.

UNIVERSITY OF ILLINOIS,  
SCHOOL OF PHARMACY.

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## PHARMACEUTICAL EVENTS IN 1822.\*

BY OTTO RAUBENHEIMER.

Following up my previous efforts, I herewith beg to present a continuation of "Pharmaceutical Events a Hundred Years Ago." Although my notes on this subject are quite voluminous, being a compilation of many years, great care has to be exercised to exclude any errors, which are quite common in historical accounts. Let us hope that this paper will help to arouse a little more interest in that much neglected subject, "History of Pharmacy." The arrangement of the paper is similar to that of last year.

### I. GENERAL INTEREST.

Greek independence declared on January 27, 1822.

Mexico an empire.

A number of South American countries became independent of Spain.

Brazil separated from Portugal, in commemoration of which event a Brazilian International Centennial Exposition will be held at Rio Janeiro in September 1922.

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\* Read before Section on Historical Pharmacy, A. Ph. A., Cleveland meeting, 1922.

Missouri was admitted as a new state.

Daniel Webster, Congressman from Massachusetts.

Gauze over windows and sleeping under nets was found to lessen the attacks of malaria. The first steam engine in Germany is erected in the Berlin Porcelain Works.

Sir John Franklin, English explorer, completed his first Polar expedition (1819-1822).

On July 8, 1822, the English poet, Percy B. Shelley, was drowned off the coast of Italy. His body was found near the Royal Palace of Gombo, near Pisa, the birthplace of Galileo. Shelley's remains were cremated and his ashes buried in the same burial ground with John Keats, apothecary and poet, who died in 1821, near the pyramid of Caius Cestius in Rome.

Oldest recorded mortgage, still in existence, was given on June 8, 1822, by Isaac Ormsby to the trustees of the town of Camillus, Onondaga Co., N. Y., for the sum of \$326.78.

The astronomical system of Nicolas Copernicus, published in 1542, is at last adopted by the church.

#### II. EVENTS, PHARMACEUTICAL AND CHEMICAL, ETC.

First illumination with gas in the United States in Boston, having been antedated by the one in Cornwall, England, in 1792.

Gay-Lussac arrives at a more precise view of a "compound radicle" as the result of his work on the cyanogen compound.

Berzelius studies the mineral waters of Carlsbad.

Bonastre works on resins.

Cod liver oil, for a long time used as a household remedy in northern Europe, was introduced into Germany by Hofrat Dr. Scherer in Stegen.

Apothecary General abolished in U. S. Army.

Alexander Marcet, of Guy's Hospital, London, investigates black urine.

Dr. Brayer of Constantinople sends specimens of Koussou to Paris.

John Herschel lays the foundation to spectrum analysis.

Thomas Skidmore of New York proposes that the oxyhydrogen blow pipe discovered by Hare should be used as a *submarine instrument of naval warfare*. For particulars see Edgar Fahs Smith, "The Life of Robert Hare," pp. 14 and 15.

Seringe communicates a description of *Aconitu ferox*, Nepal or Indian Aconite Root, to the Société de physique de Genève.

Colebrooke gives the *Cocculus indicus* shrub the botanical title *Anamirta paniculata*.

#### III. FOUNDATION OF UNIVERSITIES, COLLEGES, ASSOCIATIONS AND JOURNALS.

British Association for the Advancement of Science founded.

Gesellschaft deutscher Naturforscher und Ärzte was founded and its first Congress of naturalists and physicians—including pharmacists—was held September 18, 1822, in Leipzig. Its centennial was duly celebrated in the same city.

Württemberg Apotheker Verein.

Witwen Kasse in Hamburg was established, *i. e.*, an insurance for the benefit of widows of physicians, surgeons and pharmacists.

Hobart College was founded in Geneva, N. Y. The centennial was celebrated in June 1922.

Rudolph Brandes begins the publication of "Archiv des Apotheker Vereins in nördlichen Deutschland" which in 1835 was named "Archiv der Pharmazie," which is still in existence.

Annals of Philosophy and Philosophical Magazine united.

Prof. John D. Goodman edits the shortlived *Western Quarterly Reporter of Medical, Surgical and Natural Science* (1822-23), the first medical journal printed west of the Alleghanies.

#### IV. ESTABLISHMENT OF FIRMS AND PHARMACIES.

George D. Rosengarten and Charles Zeitler, as Rosengarten and Zeitler, began the manufacture of chemicals in St. John Street, Philadelphia. They were the first to manufacture the alkaloids of cinchona and opium in the United States. This is the forerunner of Powers-Weightman-Rosengarten Co.

#### V. EDUCATIONAL EVENTS.

Liebig goes to Paris to study under Gay-Lussac.

Heinrich Rose, the Berlin apotheker, becomes professor of chemistry.

Dalton is made a member of the Royal Society of London.

Dr. George B. Wood elected professor of chemistry at the Philadelphia College of Pharmacy.

The name "Philadelphia College of Apothecaries" was changed to the Philadelphia College of Pharmacy" and the institution was incorporated.

Oersted visits Germany.

Harvard Botanical Gardens placed in charge of the celebrated Thomas Nuttall.

Emil Maximilian Dingler, founder of the polytechnical journal which bears his name, begins his studies.

August Wiggers, later professor of pharmacognosy and author, completes a 5-year apprenticeship with Apotheker Cohl in Coppenbrügge.

F. Runge received the degree Ph.D. from the University of Berlin with his thesis, "De pigmento Indico."

Carl Christian Beinert, a student of Trommsdorff, passes his state examination.

James Hutchinson Stirling, Scottish philosopher, author and critic, studies medicine at Glasgow.

Louis Nicolas Vauquelin, French apothecary and chemist, is pensioned as professor of chemistry. He was director of the Ecole de Pharmacie from its foundation in 1803 until his death in 1829.

The chair of medical history at the Paris Faculty, which was abolished in 1808, was again occupied by Morceau de la Sarthe from 1818 to 1822.

Johann Klein appointed professor of practical obstetrics, University of Vienna.

The first Hebrew apprentice was employed in Austria, *i. e.*, Michael Perl, in Zaleszesyki, Galicia. Officially the Jews were not permitted to become pharmacists in Austria until 1860.

#### VI. INVENTIONS AND DISCOVERIES.

George Simon Serullas (1774-1832), military pharmacist who served in the Napoleonic wars, and later chief pharmacist at the military hospital Val de Grace, discovers iodoform.

The French apothecary, Antoine Germain Labarraque, prepares the bleaching fluid, which still bears his name, by saturating a cold aqueous solution of sodium carbonate with chlorine gas.

Gentianic Acid by Henry and Caventou.

Chinoidin by Buchholz, Jr.

Daphnin extracted from *Daphne mesereum* L. by Gmelin and Baer.

Itaconic acid and its isomers discovered by Lassaigne in heating citric acid.

Woebler investigates silver cyanate and isolates cyanic acid.

Liebig isolates fulminic acid and shows same to have same composition as cyanic acid.

Leopold Gmelin discovers the ferricyanides by the action of chlorine on ferrocyanides.

Döbereiner prepares formic acid artificially.

Racemic tartaric acid discovered.

Liebig constructs the combustion furnace.

Theory of heat by the French mathematician, Jean B. J. Baron de Fourier.

Flourens makes his classical experiments on pigeons.

Magendic demonstrates Bell's law of the spinal nerve roots.

James Jackson describes alcoholic neuritis.

Petrox and Robinet obtain from *canella alba* the so-called Canellin which later on Meyer and Von Reiche found to be mannite.

Trommsdorff extracts 33 per cent. of glucose from juniper berries.

Schiede discovers in Mexico *Smilax medica*, the plant which supplies the Vera Cruz sarsaparilla.

#### VII. BORN IN 1822.

##### *a. Pharmacists.*

Theodor Peckolt—German apotheker who became Court Pharmacist in Rio, Brazil, 1867.

Adolf Fr. L. Stricker—1871, assistant to Liebig.

Ernst Chr. A. Biltz—1903, Apotheker in Erfurt, Ph.D. h.c. Univ. Halle.

Wilhelm Danckwortt—1892, Apotheker in Magdeburg, member Revision Committee and director Apotheker Verein.

Ludwig Haiss—1893, founder of the Pharmacists' Benefit Association in Bavaria.

Heinrich Zeise—Apotheker and poet.

Joh. J. H. Spirgatis—1899, Apotheker and professor at Königsberg.

Edmond Robiquet—1860, son of Pierre R., one of the discoverers of codeine.

Callay—1896, pharmacist and botanist in Chesne (Ardennes), under whom Bourquelot served his second-year apprenticeship.

Gustave Chancel—1890, French pharmacist and professor of chemistry.

Theodore Heinrich Hermann von Heldreich, born in Dresden, March 3, 1822, studied under Dr. Candolle and became director of the botanical garden of the University of Athens.

Robartus Johannes Opwjrda, one of the most noted Dutch pharmacists, apotheker and professor of chemistry in Nymegen and founder of the well-known "Pharmaceutisch Weekblad," in 1864.

*b. Chemists.*

Louis Pasteur—1895. The Pasteur Centennial will be celebrated May 1, 1923, at the University of Strassburg, where he was professor.

Henry Deacon—1877, English chemist, student of Faraday at the Royal Institution.

Oliver Wolcott Gibbs—1908, one of the most eminent chemists in the United States. He was Rumford Professor in Harvard, and credit is due him for introducing into the United States the German conception of research as a means of chemical instruction.

John P. Norton—1852, one of the pioneer agricultural chemists in the United States.

John Addison Porter—1866, American chemist and writer.

Alex. Fisher Olmstead—1853, American chemist and writer.

*c. Physicians.*

Stephen Smith, Father New York City Health Department and founder American Public Health Association in 1871.

Karl Thiersch, professor of surgery University Leipzig, who introduced salicylic acid in place of phenol in surgery. Solution and powder still bear his name.

Jacob Moleschott—1893, German physiologist.

Adolf Kussmaul, Director of University Clinic in Strassburg.

Greensville Dowell—1881, American physician and writer.

Chas. C. P. Clark, American physician and author.

Phineas Jonathan Horwitz, American physician.

Chas. Henry Budd—1880, American physician.

John Campbell, American surgeon.

David Camden DeLeon—1872, American surgeon.

Robert Murray, American surgeon.

Silas Lawrence Loomis, American physician and author.

Morton Stille—1855, American physician and lecturer.

Horace Putnam Fornham, American physician and benefactor.

Christopher Johnson, American physician and artist.

John B. Lindsley, American physician and educator.

Edw. D. McDaniel, American physician and inventor.

Alex. S. McDill—1875, American physician and statesman.

William M. Mitchel, American physician.

Samuel S. Purple, American physician and author.

William Speer, American physician and missionary.

Winslow Hatch—1885, American physician.

Henry Sanborn, American physician and statesman.

Chas. H. Fisher—1888, American physician and public officer.

Ambrosio Gonzales del Valle, Cuban physician and scientist.

Fernando O. Y. Berea, Mexican physician and author.

Joseph Henry Wythe, English physician and clergyman.

*d. Naturalists, and others.*

Johann Gregor Mendel—1884, abbot of the Augustinian monastery at Brünn, Austria, who discovered the mathematical law governing the dominant and recessive character of hybrids in 1866. (In connection with this permit me to call attention to the excellent article "A Pilgrimage to Brünn," in *Am. J. Pharm.*, 87, 69-75, 1915.)

Sir Francis Galton—1911, a cousin of Darwin, an investigator of heredity.

Alfred Russel Wallace—1913, who independently arrived at the Darwinian Origin of Species.

Rudolf J. E. Clausius—1888, German physicist.

Wilhelm von Beetz, German physicist.

Rudolf Leuckart, German zoölogist.

Franz Ritter von Hauer, Austrian geologist.

John Strong Newberry—1892, American geologist.

John M. Safford, American geologist and writer.

Charles Girard, French naturalist and author in America.

Reuben Aldridge Guild, American librarian and author.

Thomas Conrad Porter—1901, American botanist.

George Vasey—1893, American botanist.

James Thomson—1892, Irish physicist.

Heinrich Schliemann—1890, German archaeologist. It is interesting to know that when he was 28 years old he became a citizen of the United States.

Matthew Arnold—1888, English poet and critic.

Ulysses Simpson Grant—1885, American general and 18th president of the United States.

Henry T. Durant—1881, founder of Wellesley College.

#### VIII. DIED IN 1822.

##### a. Pharmacists.

My records are blank as to the death of pharmacists in 1822.\*

##### b. Chemists.

Claude Louis Berthollet, born 1748 in Savoy, since 1772 in Paris, was very active in different branches of chemistry, especially after his election to the French Academy in 1780.

Alexander Marcet, born 1770 in Geneva, Switzerland, professor of chemistry at Guy's Hospital, London, and discoverer of xanthine in 1817. It was his lectures in London that induced the great Berzelius in 1812 to abandon the old method of instruction and to adopt the method of experiments.

##### c. Physicians.

Valentin Haüy, born 1745, younger brother of the celebrated mineralogist. In 1785 he founded the Institut nationale des jeunes aveugles, where the blind were taught how to read.

Domenico Cotugno, born 1736, demonstrated albumen in the urine by boiling, in 1764, and discovered the cerebrospinal fluid in 1774.

Caleb Hillier Parry, born 1755, a highly esteemed practitioner of Bath, England.

Wright Post, born 1766, of Long Island, N. Y., was the first in America to ligate the femoral artery successfully.

Michael Lub, born 1759, American physician and statesman.

James Sykes, born 1761, American physician and statesman.

Sam. R. Trevett, born 1763, American surgeon.

##### d. Naturalists and others.

Sir William Herschel, born 1738 in Hanover, the son of a musician, became a great astronomer in England. Discovered the planet Uranus in 1780.

Abbé René Just. Haüy, born 1743, French mineralogist.

Abbé Cucurron, born 1742, French educator of deaf mutes.

William Dandridge Peck, born 1763, American naturalist.

Edw. D. Clarke, born 1769, English traveler and mineralogist.

Giovanni V. M. Fabroni, born 1752, Italian scientist.

Alexander Metcalf Fisher, born 1794, American educator.

Ernest Theodor Amadeus Hoffmann, born 1776, German writer, music and theater director.

Friedrich Justus Bertuch, born 1747, German poet.

#### IX. BIBLIOGRAPHY.

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"Codex Medicamentarius Europaeus," Lipsiae, 1819-1822.

A. N. von Scherer, "Literatura Pharmacopœarum," Lipsiae.

"Pharmacopœa Bavarica," I edition.

"Magendie's Formulary," translated into Italian.

Paris: "Pharmacologica."

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\* See under Necrology, p. xiv, Index JOUR. A. PH. A., Vol. XI.

*b. Books.*

Trommsdorff: "Handbuch der pharmazeutischen Warenkunde."

Joh. And. Buchner: "Vollständiger Inbegriff der Pharmazie Nürnberg."

Karmarsch, "Grundriss der Chemie," Wien.

Lamarck: "Natural History of Invertebrates," 1815-1822.

Panckoucke, "Dictionnaire des sciences medicales," 1812-1822, 60 vol.

Drake, "Rise and Fall of the Medical Colleges of Ohio."

Parkinson: "Fossil Remains," 1804-1822.

Chelius (the only professor at Heidelberg who, at that time, had a carriage): "Handbuch der Chirurgie," 1822-23.

Justus F. K. Hecker: "Geschichte der Heilkunde," 2 volumes, 1822-1829, the earliest important German work on the history of medicine.

Sir William Jackson Hooker: "Botanical Illustrations."

Humboldt: "Synopsis Plantarum," 1822-1826.

Kunth: "Synopsis" (plants collected by Humboldt & Bonpland), 4 vol., Paris, 1822-25.

D. P. H. Schmidt: "Historisches Taschenbuch der Pharmazie, Schleswig."

Vanuxem & Keating: "Mineralogy of Sussex Co., N. J."

Fourier: "Théorie analytique de la chaleur," Paris.

Isidore Auguste Comte, the metaphysical writer and founder of modern positive philosophy, publishes the first of his numerous works, "Plan of Scientific Work Necessary for Reorganizing Society."

Thomas de Quincy published his "Confessions of an Opium Eater."

*c. Papers, Pamphlets and Theses.*

Brayer (French physician in Constantinople): "Notice sur une nouvelle plante de la famille des Rosacées, employée contre le Taenia," Paris. This is the first publication on the taenicidal properties of Kouso or Brayera.

Leschenault de la Tour in *Mém. du Musée d'Hist. nat.* VIII publishes a paper on the production of cinnamon bark.

James S. Cutbush: "Formation of Cyanogen by the Action of Nitric Acid on Charcoal."

BROOKLYN, N. Y.

AUGUST, 1922.

COMMITTEES OF THE NATIONAL  
WHOLESALE DRUGGISTS'  
ASSOCIATION.

President Frank E. Bogart of the National Wholesale Druggists' Association has appointed the following as chairmen of the association's committees for the current year:

Credits and Collections, M. E. Sherman, Des Moines, Iowa; Committee on Drug Market, F. J. McDonough, New York City; Employers' Liability and Workmen's Compensation, H. D. Cowan, Buffalo, N. Y.; Fire Insurance, Carl F. G. Meyer, St. Louis, Mo.; Legislation, C. Mahlon Kline, Philadelphia; Local Associations, H. D. Faxon, Kansas City, Mo.; Membership, John W. Durr, Montgomery, Ala.; Memorials of Deceased Members, H. J. Schnell, New York; Paints, Oils, and Glass, George A. Chandler, Hartford, Conn.; Rates and Routes, Romaine Pierson, New York; Trade-Marks, William McKinney, New York; Transportation, W. W. Gibson,

Buffalo, N. Y.; Salesmen and Selling Methods, William Ochse, San Antonio, Texas; Proprietary Goods, G. B. Moxley, Indianapolis, Ind.; Quality Medicinal Products, I. V. S. Hillier, New York; Uniform Accounting, Sewell D. Andrews, Minneapolis, Minn.; Prize Contest, L. J. Bertoli, Chicago; Metric Weights and Measures, Adolph W. Miller, Philadelphia. President Bogart has also named the following delegates:

To National Drug Trade Conference, C. Mahlon Kline, Philadelphia; Chas W. Whittlesley, New Haven, Conn.; A. H. Van Gorder, Cleveland, Ohio. Alternates, W. L. Crouse, Washington Representative, Washington, D. C.; F. E. Holliday, General Representative; G. Frank Baily, Baltimore, Md.

To the Chamber of Commerce of U. S. A., E. D. Taylor, National Councilor, Richmond, Va.; Walter V. Smith, Philadelphia; H. H. Robinson, Baltimore; A. J. Geer, Charleston, S. C.