

# Books Make History—Even in Pharmacy†

## Pharmacy in Retrospect, II

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The written word is the cherished memory of mankind. From olden days comes the significant sentence: "Quod non est in actis non est in mundo" (Whatever is not in the record, is not in the world); but until the time of the printing press, the written word was a limited privilege largely restricted to governments and learned men. Printing gave wings to words, gave publicity and distribution to thoughts and caused history-making results.

The "Squibb Ancient Pharmacy," that comprehensive collection of pharmaceutical objects of old, proves this also in the field of pharmacy. In two large table cases and on a corner shelf of the adjoining study—reminding us of that of Faust before he left God and science and surrendered to the devil, the world and Gretchen—numerous old books, manuscripts, edicts and franchises are awaiting those able and ready to commune with and enjoy these silent and yet so eloquent representatives of the past.

bula," are the "Hortus Sanitatis" (Garden of Health) printed in 1499 and the "Arzneybuch" (book of remedies), printed in 1479. It is most striking that they are not written in Latin, the language of the scientific world of those times but rather in the language of the people.



Fig. 2.—Woodcut showing 16th century pharmacy—from title page of "Reformation der Apotheken" printed 1536.

The people, that anonymous mass of men and women so unimportant in those days of absolutism, slowly came to the surface, through the aid of books, never to be submerged again. The knowledge presented by these early books was by no means new, but its dispersion beyond the jealously kept sphere of the learned few was new indeed, yes revolutionary.

In the preface to his *Arzneybuch*, the author says: "I, Ortolff Von Beyrlant, M.D., will write a book of remedies in the language of the people out of all remedy books I ever knew in Latin."

Striking also is the noble and classical print. (Fig. 1.) How well balanced are the paragraphs, the lines, and how fine the marginal proportions. In this product of the earliest printing press, we see a beauty of typography, scarcely reached and by no means surpassed by the best of our days;

we feel therein the influence of the handsome handwriting as practiced by the monks in the holy seclusion of the medieval monasteries.

The "Hortus Sanitatis" and the "Arzneybuch" had many successors. Various her-



Fig. 1.—Incunabula—Ortolff's *Arzneybuch* printed 1479.

The two oldest books of the collection, printed before 1500 and therefore members of that illustrious group called "incuna-

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bals and formula books of the 16th, 17th and 18th centuries may be found in the collection; they are interesting but not revolutionary. The small book, "Reformation der Apotheken" (Reformation of the Pharmacies), may be considered a beginning of a new departure and in some respects a revolutionary one. Written by the famous physician and botanist, Otto Brunfels, and printed in 1536, it presents an account of pharmaceutical duties and responsibilities and gives detailed instructions. It was long a guide to both management and the authorities. The title page shows a most interesting woodcut, representing a pharmacy of that time. (Fig. 2.)

Shortly after the death of Brunfels, the practice of pharmacy became better standardized and more secure in its foundation through the introduction of official formularies. The new period was inaugurated by the Nuremberg Pharmacopœia of 1546 and the more representative Augsburg Pharmacopœia of 1564. Of that latter and most important work the Squibb collection contains the 1623 edition.

It may be recorded that Dr. Edward Kremers in 1926 edited and secured the publication of a facsimile print of the very rare first edition by the Hollister Pharmaceutical Library Fund of the State Historical Society of Wisconsin.

As Joseph Schafer, in his preface to the facsimile, justly remarks, there is no doubt that the Augsburg Pharmacopœia influenced the compilers of the London Pharmacopœia, later editions of which, in turn, served as a direct guide to the compilers of the first United States Pharmacopœia (1820). Thus this reproduction represents not only an important event, but also a noble gesture by which American science and generosity give thanks and recognition to the old world for its pioneering contribution in this field.

Just as the 1623 Augsburg Pharmacopœia is typical of the official materia medica of the 17th century, so is the best-known Württemberg Pharmacopœia (Fig. 3) in its editions of the second half of the 18th century quite representative for the materia medica of the whole 18th century.

In the last third of this turbulent century,

the empirical, speculative and sometimes mysterious theories gradually gave way to knowledge resulting from the then-increasing scientific research. The "Pharmacopœia Wirtenbergica" of 1786, which we find in the Squibb collection, stands in the midst of this development. It not only contains



Fig. 3.—Württemberg Pharmacopœia of 1786.

products which we still find almost unchanged in the present U. S. P. (mercury preparations, lead acetate, silver nitrate, tincture of iron chloride, etc.), but also many examples of the old and mysterious. A formula for prepared earthworms ("lumbri-corum terrestrium praeparatio") reads, in shortened translation:

"Living earthworms are to be washed until they are perfectly clean. Then the worms shall be macerated with wine for 4 hours and thereafter be quickly dried in an oven."

The product is recommended internally as an aperient, diuretic, diaphoretic and anodyne and to be used "bono cum successu" (with good success) against arthritis, convulsions and epilepsy.

Will their claimed, and at that time well-established, medical virtue cause modern researchers to examine earthworms and determine if, after all, they do harbor a constituent of real merit?

There is also a formula for foxoil ("oleum vulpinum"), directing to take an "intact and lively" fox, skin and eviscerate, then boil with six pounds of water, four pounds of old, clear oil and six ounces of salt. While boiling add a pound each of dill and thyme, boiling until the flesh separates from the bones and the water has evaporated. The

filtered oil then recovered is recommended for nervous attacks and stiff joints.

A formula for "sal volatile urinæ" a salt, to be prepared from the urine of young people, is mentioned but not recommended. The product, says the Pharmacopœia, is superfluous. Yet now we know of potent and valuable hormones available from urine of animals in certain stages of life.



Fig. 4.—The works of Galen, one of the four volumes.

No doubt it was conservatism that caused a formula, thought to be superfluous, to be included. Conservatism, however, is not only a personal attribute but also a general one, and may sometimes even be the dangerous transfer of the physical law of inertia to the mental sphere.

Thus, the works of Galen, who lived 130–210 A.D., ruled the therapy of the civilized world for more than 1400 years. Galen devised a plausible system, and plausible systems often have great longevity. The Squibb collection includes the last of the nine editions (4 imposing volumes) which were published in Venice between 1541 and 1625. They represent the highest degree of medieval conservatism and splendor in medical literature. (Fig. 4.)

Conservatism, however often not scien-

tific, is also the characteristic feature of the several handwritten formula books of the 17th and 18th centuries which the Squibb collection holds. These books contain diligently compiled formulas—personal, official and unofficial, serious and mysterious, collected for daily use, mute evidence of what the customers of that time wanted and how the pharmacist met their demands. The handwriting skill displayed in these goosequill written records is admirable indeed. (Fig. 5.)

From such hardwritten formula books, it is but a step to the old franchises. Some of them grant rights to produce and sell certain nostrums. The formulas for such nostrums, however, may often be traced back to the handwritten private formula book.

The Squibb collection has two of the finest examples of such nostrum privileges in existence. They are no mere documents but really books of many large pages of precious parchment, beautifully inscribed and splendidly bound.



Fig. 5.—Handwritten formula book.

Affixed to each, by means of heavy silken cords, are the great imperial seals, artistic creations of red wax in polished walnut cases.

Looking at the first pages of a franchise granted and signed in Vienna by the Emperor Carl VI, we may visualize the since departed glory of the Holy Roman Empire. Not less than seventy-three kingdoms, principalities and duchies figure in the titles following the name of the emperor; among them the kingdom of Hierusalem (Jerusalem), reminding us of the Crusades, and "The Terrae Firmæ"(Continents) "of the Oceanic Sea" (which includes the Americas). The possession of these lands had been lost long ago, but the titles still remained. (Fig. 6.)

All that pompous display had only the purpose to license "Our and the Empire's faithful and dear David Liebel, citizen and merchant in Our's and the Holy Empire's town Nuremburg to prepare and to sell certain life pills," a secret medical composition, which, "according to credible testimonies and manifold approved experience are used with extremely good success against fever, plague, poison and other bad illnesses and needed in the Holy Empire, as well as in foreign kingdoms and countries."

Another franchise granted and signed in Vienna August 20, 1791, by Emperor Leopold II (Fig. 7) is a confirmation of an earlier



Fig. 6.—Royal franchise for the production and sale of "life pills" signed by Carl VI of the "Holy Roman Empire." Title page, signature page and seal.

franchise for the production and sale of "Trusinger's Healing Plaster," granted for the first time by Emperor Ferdinand III (1636-1657) and renewed by all his successors. Naturally each privilege or confirmation had to be highly paid for. Business must have been good for all parties concerned.

How different the relatively plain document by which Frederic the Great of Prussia



Fig. 7.—Royal franchise for the production and sale of "Trusinger's Plaster" signed by Emperor Leopold II, signature page of the large parchment document with seal.

(1740-1786) permitted in 1763 the establishment of a new pharmacy in Distorff by

concerning the practice of pharmacy of previous centuries, and some schedules of government-established prices for remedies. Such authoritatively fixed prices are legal to the present day in many European countries, thereby eliminating the, to us all too familiar, "price cutting" with all its evils. Freedom also has its price.

Books, old franchises, manuscripts! All pertaining to pharmacy, and yet a part of the universal history with which we are all connected, by which we are all affected and in which we all have a part. It is

told Archimedes once said: "Give me a firm place on which to stand and from it I

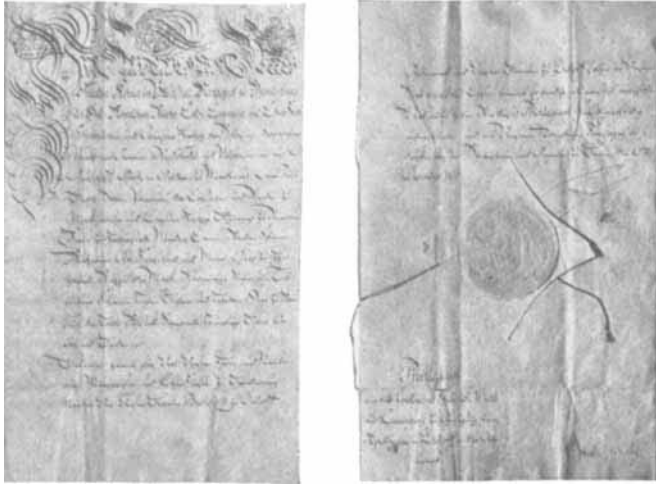


Fig. 8.—Franchise for the establishment of a new pharmacy signed by Frederick the Great of Prussia.

pharmacist Friedrich Wiesel. There is no superfluous phrase in the clear language of this franchise. We salute with respect the signature of this great king and man. (Fig. 8.)

Emperors and Kings!—It would seem that here the Pope cannot be overlooked. Indeed this inexhaustible collection does provide a pharmaceutical document given and signed by Pope Leo XII in 1824—a bound parchment permitting the establishment of a pharmacy by Dominus Paulus Ruga in Rome. (Fig. 9.)

Aside from these books and official documents, the Squibb collection contains many others, among them a number of



Fig. 9.—Franchise for the establishment of a Pharmacy signed by Pope Leo XII.

general edicts shall move the earth." For us, this firm place is Pharmacy!