

# LITERATURE AND REFERENCES ABOUT PHARMACOPOEIAS IN ROMANIA, THROUGH THE AGES UNTIL TODAY

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## Introduction

We take as a model approach to the subject, the Prof. Dr. François Ledermann's Conference, fully supported at ISHP Congress, Berlin, September 14 to 17 2011, entitled: The Pharmacopoeia of Cities of Europe. In summary of the conference are listed the main concepts that led to the publication of various books on the pharmacopoeia criteria that provide formal or informal nature of the Pharmacopoeia.

Another problem is the spread of the earliest forms of medieval pharmacopoeia (antidotaria) across Europe. In addition, the pharmacopoeia medicine's scope is about a city.

The emergence of regional and national pharmaceutical formulas, internationally (European Pharmacopoeia, Universal Pharmacopoeia) are also listed in the Prof. Dr. François Ledermann's Conference

## The historical context

It is well known in Romania, schools, pharmaceutical associations, Pharmacopoeia and Pharmaceutical Press occurred 200 - 7-800 even years later, compared with the more developed European countries [1]. The development of whole countries is heavily influenced by their history. Romanian territory was under imperial rule for centuries, until the second half of the nineteenth century, 1877-1878: Transylvania in the Kingdom of Hungary in the thirteenth century, falling under the Hapsburgs in 1699, the Ottoman rule in Wallachia and Moldavia, the XV-XIX centuries.

In this historical context, in the first half of the nineteenth century, there were attempts to develop a national pharmacopoeia, unsuccessfully. The health system began to organize structural, through the creation of health committees in the Danubian provinces of Wallachia and Moldavia. The first professional and scientific societies and associations were created [4,6].

The second half of this century is marked by the arrival in Romania, in 1853, of **Dr. Carol Davila** (1828-1884), graduated from the Faculty of Medicine of Paris. Supported by **Nicholas Kretzulescu** (1812-1900) and the sovereign **Alexandru Ioan Cuza** (1820-1873), he managed to bring great benefits to medicine and to pharmacy (1857 National School, etc.) and in other areas [9,10]. „The Minor Union" of the two principalities into a single state, Romania, in 1859, was followed by „socio-cultural and economic strengths change".

This socio-political and economic environment was favorable to the appearance of the first Romanian Pharmacopoeia 1862 [7].

The great pharmacognost **Tschirch Alexander** (1856-1939), a German chemist, resident in Switzerland, said: "*Pharmacopoeia is a mirror of its time*" [quoted by G. Ratz, page 49]. The phrase was taken over by the Romanian professional teachers: „*A pharmacopoeia expresses the cultural professional status of a country*" [I. Vintilescu, quoted by G. Ratz].

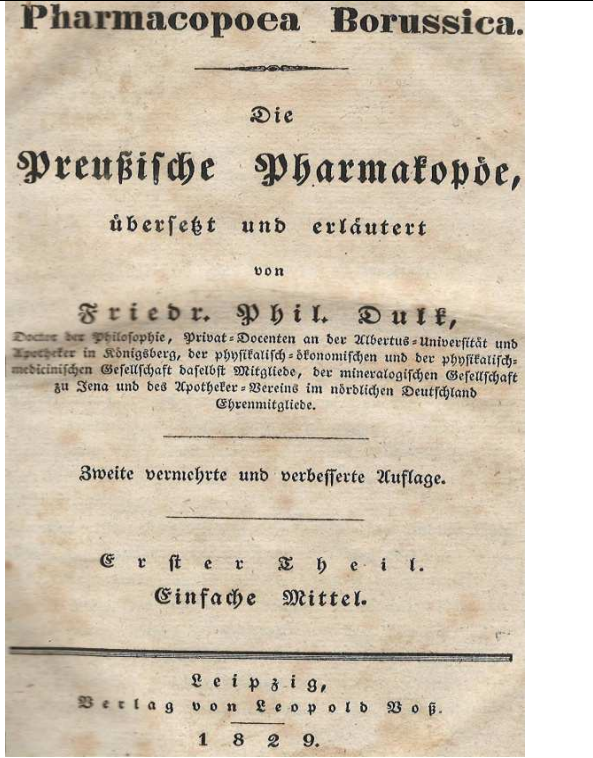
In previous centuries the first Romanian Pharmacopoeia, the pharmacy practice was oriented on the basis of Codex, Antidotaria, Dispensatoriums and foreign pharmacopoeia European countries, some imposed by the dominant authority in Transylvania [1,4,6,8].

"*Cumanicus Codex*" is significant. The manuscript "Codex Co (a) manicus" includes in the first part a trilingual Latin-Cuman Persian dictionary; the original trilingual redaction was made between 1293

to 1295, the manuscript preserved in Venice is a copy of July 11, 1303 [8]. In this document, we have information (ingredients, formulas and tools for their preparation).

„*Dispensatorium Pharmacopolarum*“ by Valerius Cordus (1515-1544), printed in Nuremberg in 1546, reprinted many times in many European countries, come out in the inventories of pharmacies in Transylvania (Romania), even in the sixteenth century [4].

“*Regimen Sanitatis Salernitanus or Flos Medicinae*,” written at the School of Salerno by the Spanish doctor **Arnaldo da Villanova** in 1150 years book was reprinted five times in Romania, for its documentary value, at the end of seventeenth century (Brasov, 1696) and in the eighteenth and twentieth centuries (Cluj in 1770, 1776, Bucharest, 1929, 1975) [2,6].

	<p>Other pharmacopoeia of the first half of the nineteenth century from our collection are:</p> <ul style="list-style-type: none"> <li>-<b>Borussica Pharmacopoeia</b> (Die Breussische pharmacopoeia übersetzt erleutert und Friedrich von Phil Dult - Erster Theil - Einfache Mittel, <b>Leipzig, 1829</b>, 1036 pages..... (<i>Borussica Pharmacopoeia</i>, translated and explained by Friedrich Phil Dult Part I <i>Simple Medicines</i>) and 5 tables, whose cover is reproduced herewith;</li> <li>-<b>Pharmacopéeuniversalis</b>, Weimar <b>1846</b>, 1044p. (German Edition)</li> <li><b>Austrian Pharmacopoeia</b> Ed Quinta Viennae 1855, 272p.</li> </ul>
<p>1. Cover <i>Pharmacopoea Borussica</i>, Leipzig, 1829</p>	

From the second half of the nineteenth century, there are other pharmacopoeia in our collection :

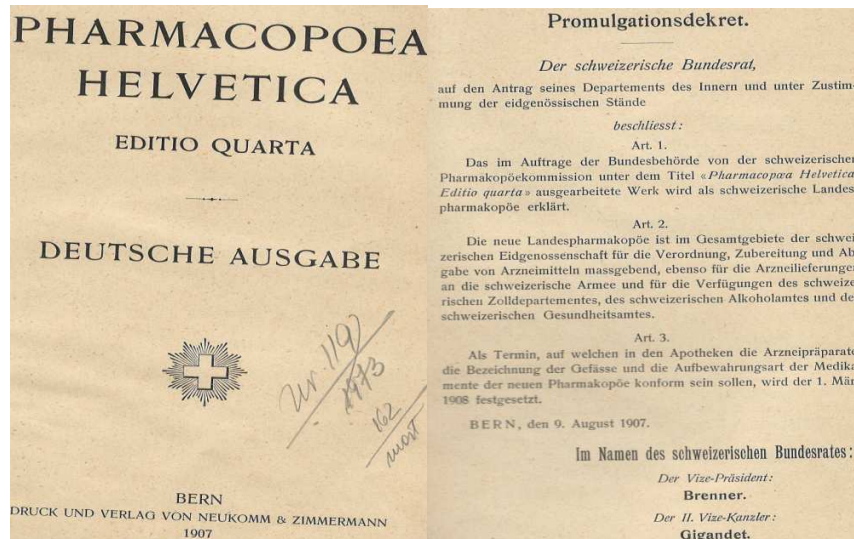
-*Pharmacopoeia Hungarica*, 1871, 577p. 1888, 716 p. and Supplement 1896

-*Austrian Pharmacopoeia* Ed sexta, 232p. (German) *The Austrian Pharmacopoeia* Comment by Dr A. Vogel, Vienna, 1874, 583p.;

The collection of the Faculty of Pharmacy of Bucharest recorded several copies „*Officine*“ with the title *The Officine Pharmacy Directory or General Practice* , 1875, 1606 pages, are also recorded the textbooks of Fischer and Hager:

-H. Hager - Hager's Handbuch der Praxis pharmazeutischen (Pharmacy Practice Guide ), Berlin, 1883, two copies over one thousand pages.

- FC Schneider - Comments zurösterreichischen Pharmacopoeia (Commentary on the Austrian Pharmacopoeia), Vienna, 1881, 575p



2. The cover and the page with the Promulgations Decree of the Pharmacopoeia Helvetica 4th Edition, Deutsche Ausgabe, Bern, 1907

-B. Fischer, C. Hartwich - Handbuch der Praxis pharmazeutischen (Pharmacy Practice Manual), Berlin 1920, 1277 p.

In the twentieth century the publication of the Romanian Pharmacopoeia, started with the official edition in 1915. The editing unofficial phenomenon of pharmacopoeia is reported in other countries [Fr.Ledermann].The special Romanian Pharmacopoeia (informal), which we know as „Pharmacopoeia Kollo Constantine" (1874-1954), although reflecting the advancement of knowledge and pharmaceutical practice, it has not been accepted by the pharmaceutical authority. On the 11 March 1916, the specialized Literature, certifies this phenomenon as follows:"The Commission recommends that pharmacists for pharmaceutical chemicals not included in the pharmacopoeia Romanian third edition (1893 our note), use one of the Swiss Pharmacopoeia, French, German or Austrian. In cases where the preparation is not in the pharmacopoeia, using the work of **Hager.Dorvault or Dieterich** [3]. (This was the certification that the pharmacopoeia published in 1915 was not accepted as an official pharmacopoeia)" [6].

The spread of pharmacopoeia works throughout Europe, including in Romania, even their occurrence in the country, we are certified by the books of the history of pharmacy [4,6], and some works of the twentieth century.Background documentation and bibliographic available in our collection "Lecturer Dr. Farm. Z. St. Farsirotu "at the Faculty of Pharmacy of Bucharest, contains some works which reflect an international collaboration of experts on the therapeutic and pharmaceutical practice. For example, **Romania- Switzerland, France-Romania:**

-**Pharmacopoeia Helvetica**, Editio Quarta, Deutsche Ausgabe, Bern, 1907, 639 pages,

- Codex medicamentarius French (French Pharmacopoeia), Paris, 1920, 999 p.
- The General Directory pharmacy or Pharmacy Practice, Paris, 1928, 2008p
- DELEANU, N.T.**René Fabre**,L.CONIVER Index Pharmaceutica IMedicine, Paris, 1937, 722 p.
- Catalogue of ancient Pharmacopoeia works Collection Frenchandoreign ,Paris, 1967, 95 p.

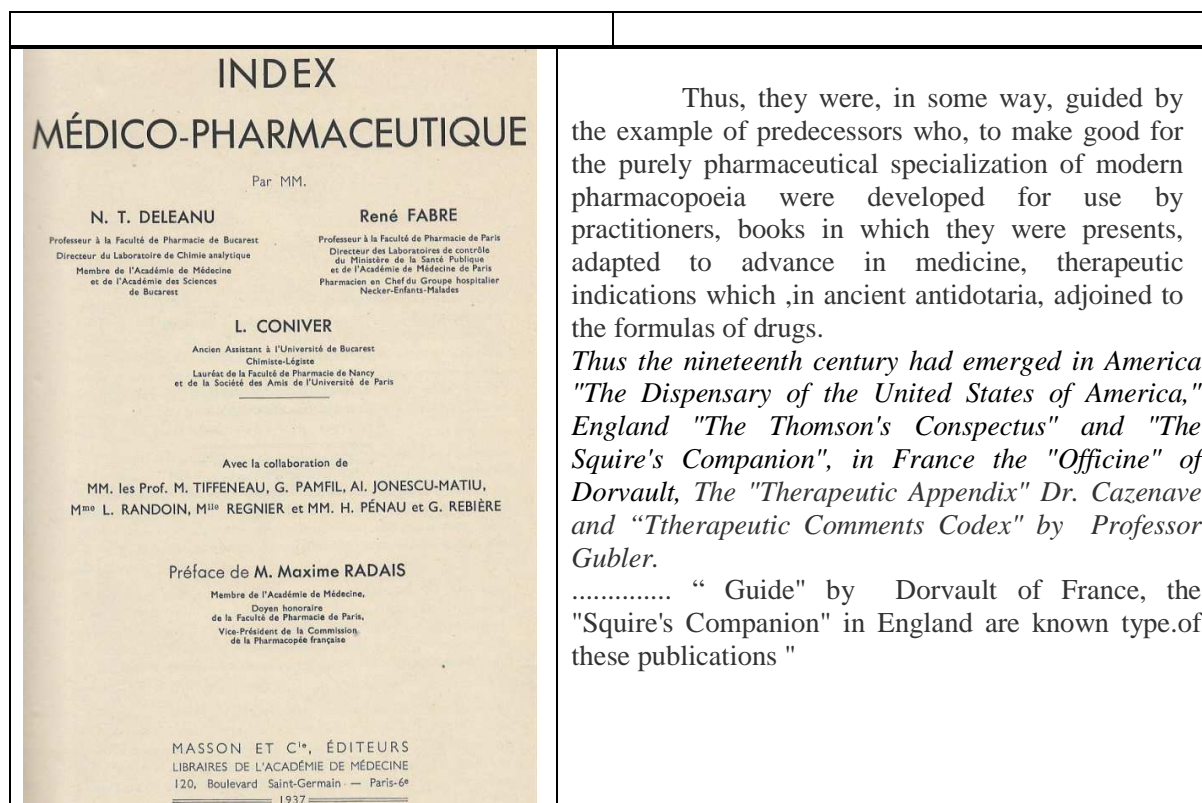
Works with the name of Codex, continued to appear in the twentieth century. In Iasi (Romania) was published in 1927, edited by Professor Nicholas T.DELEANU (1879-1959), and Dr.Lupu CONIVER (1892-1992), **Medical Pharmaceutical Codex**, 505 pages in Romanian.

Ten years later, in 1937, it was published in French in Paris, **The medical pharmaceutical index**, 722 pages, by the same authors, in collaboration with the Dean of the Faculty of Pharmacy, **René Fabre** (1889-1966).

The French **Index** has benefited from a collaboration of seven scientists (as they are named by Professor M.Radais, 2 Romanian, G.Pamfi (1883-1965) and AlIonescu-Matiu (1883-1975) and five French: Tiffneu Marc (1873-1945), L.Randoin, Regnier, H. Pénaud, G. Rebière). Attached is the picture of the cover of the Index.

We have reproduced a few paragraphs of *Preface* by Professor Maxime Radais, member of the Academy of Medicine, Honorary Dean of the Faculty of Pharmacy of Paris, Vice-President of the Commission of the French Pharmacopoeia:

*When Professor DELEANU and Dr.CONIVER, assisted by their colleagues from the University of Bucharest, Professors Slatineanu, Ciucă, Parhon, Enescu and Ionescu-Matiu, were published in 1927, the "Codexmedico-Farmaceutic" they wanted to give the Romanian Pharmacopoeia, published the previous year an appendix which would condense in a specific medical mind, useful in the therapeutic use of the basic drug..*



### 3. The coverage of the *Medical-pharmaceutical Index*, Paris, 1937

In three pages of *Preface*, Professor M. RADAIS, concentrated all the information on the contribution of each collaborator, as seen in the **Table of Contents**  
At the end of the Preface, Mr. Radais says: "*The scientists of Romania and France enjoy to meet and their collaboration in common disciplines is a sure guarantee to find ready acceptance that this new code to practitioners of both friendly nations "*

From an international perspective, we would not know underestimate the importance attaching to similar exchanges.

Maxime RADAIS,  
Medicine Academy Member  
Honorary Dean  
Faculty of Pharmacy of Paris,  
Vice-President of the  
French Pharmacopoeia

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Romanian Pharmacohistoriens academics and practitioners have been intensely concerned with updating the Romanian Pharmacopoeia in the twentieth century. The scientific session of the Romanian Committee of History and of Philosophy of Science, from 4 to 6 November 1974, was dedicated to 9 Pharmacopoeia (8 official, one unofficial) published to date in Romania (between 1862-1965). We chose **22 bibliographic indexes**:

- 1) CARATA Ana - Medicines and pharmaceutical technology in the Romanian Pharmacopoeia of the nineteenth century - 34 Congressus Internationalis Historiae Pharmaciae, Firenze, 20-23 Oct. 1999, Acta, Tip. Piave Srl, Belluno (Italia), 2001, p.131-133;
- 2) CHIOSA, L. and colab .. - New elements introduced in the biological fight against drugs in the eighth edition of the Romanian Pharmacopoeia - Pharmacy 1963 years XI, No. 10, pp. 629-633;
- 3) CIULEI ST. - An attempt to develop a pharmacopoeia in Iasi in 1841-pharmaceutical practice, year V, vol II, 1972, pp. 181-185;
- 4) COTRĂU Martian - The drug over time, Ed Apollonia, Iași, 1995 p

- 5) CRUCEANU, I. - A new Romanian Pharmacopoeia, ninth edition, the Romanian Academy, CRIFS, 4-6 November 1974 (quoted by G. Ratz)
- 6) DRIMBA Vladimir - Codex Comanicus, Encyclopedic Publishing House, Bucharest, 2000, p.11
- 7) FARSIROTU, Z., TOCAN Valeria Carata Ana - Romanian Pharmacopoeia, Third Edition 1893 - Romanian Academy, CRIFS, 4-6 November 1974 (manuscript);
- 8) FLOREA Viorica - Provisions to ensure the physical and chemical quality antibiotics included in the eighth edition of the Romanian Pharmacopoeia - Pharmacy, Year XI, 1963, no. 9, pp. 571-574;9)  
FLOREA Viorica - Introduction de normes nationales et substances de référence dans la Pharmacopée Roumaine, huitième édition - Farmacia, an XI 1963, no. 9, pp 745-749;
- 9) FLOREA Viorica - Introduction of national standards and reference substances in the Romanian Pharmacopoeia, eighth edition - Farmacia, 1963 Year XI, no. 9, pp. 745-749;
- 10) GRIGORESCU Em and al - Index based on medicinal herbs, Med Ed, Bucharest, 1986, p 87.;
- 11) GRINȚESCU Paulina et al. - Changes and additions to the Romanian Pharmacopoeia eighth edition - Farmacia year XII, 1964, no. 4, pp. 49-53;
- 12) IONESCU-STOIAN, P. - A new Romanian Pharmacopoeia - Farmacia, year VII, 1959, no. 4, pp. 379-381;
- 13) IONESCU-STOIAN, P., Florea Viorica - Centenary of the Romanian Pharmacopoeia - Farmacia, 1963 Year XI, no. 3, pp. 141-147;
- 14) IONESCU-STOIAN, P. - The history of the Romanian Pharmacopoeia since the beginning until today - Romanian Academy, CRIFS, 4-6 November 1974 (manuscript, quoted by G. Ratz.);
- 15) Al ITEANU - Pharmacopoeia in the Great Romania Journal of Pharmacy, Vol XXXIII, 1923, no. 7, pp. 229-233;
- 16) IUGULESCU, C. -About the Romanian Pharmacopoeia, fifth and sixth editions (1943, 1948) - Romanian Academy, CRIFS, 4-6 November 1974 (manuscript, G. Ratz cit.);
- 17) KOLLO, C. - Contributions to the next Romanian Pharmacopoeia - Journal of Pharmacy, Vol XVII, 1905, 7-12, pp. 205-210, passim, 366-370;
- 18) Maior Ovidiu - 130 years after the appearance of the first Romanian Pharmacopoeia (1862-1992) - The second national meeting SRHP, Bucharest, 22 June 1993;
- 19) OPARI, An H. - Comments on the Romanian Pharmacopoeia, edition VI - Bulletin of the Society of Pharmaceutical Sciences in Romania, Volume XIII, 1948, no. 2, pp. 68-74,
- 20) PUȘCARU, E. - About pharmacopoeia and various editions of the Romanian Pharmacopoeia - Pharmacy, IV 1956, no. 2, pp. 179-183;

21) PUȘCARU, E-Romanian Pharmacopoeia (seventh edition) 1956 - RSR Academy, 4-6 November 1974 (manuscript, quoted by G. Ratz).

22) Ratz G. – Romanian Pharmacopoeia - Volume - History of Pharmaceutical Sciences in Romania Medical Publishing "Amaltea", Bucharest, 1994, pp. 41-63;21)

22) Ratz G. - Romanian Pharmacopoeia - Volume - History of Pharmaceutical Sciences in Romania Medical Publishing "Amaltea", Bucharest, 1994, pp. 41-63;

## Conclusions

From the History Literature of medicine available, we presented information on medicines and the Codex, which served to physicians and pharmacists from Romania, the therapeutic use of the drug.

As in other European countries, in the Romanian territory were used in the work of the pharmacist, and the Codex Pharmacopoeia abroad, who have crossed national borders. This has given rise to various collaborations. These international collaborations have also been made in the field of Pharmacopoeia, for the benefit of practitioners in the participating countries

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