Brief history of Portuguese pharmacopoeias (18th-20th century)

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Abstract

The author makes a brief history of Portuguese pharmacopoeias from the 18th to the 21st century. The first Portuguese pharmacopoeia was published in 1704 — *Pharmacopea Lusitana*. The first official Portuguese pharmacopoeia was published in 1794 — *Pharmacopeia Geral*. Between 1704 and 1794 several unofficial pharmacopoeias were published. From 1794 to the present day several official pharmacopoeias were published. Since 1986 *Farmacopeia Portuguesa* corresponds to an adaptation of *European Pharmacopoeia* to Portugal.

Introduction

The publication of *Pharmacopea Lusitana* in 1704 marks the beginning of the history of Portuguese pharmacopoeias. A 300-year history. Unofficial pharmacopoeias spotted pharmaceutical literature for almost 100 years. The publication of the first Portuguese official pharmacopoeia in 1794 — *Pharmacopeia Geral* — marks the beginning of the 200-year history of official pharmacopoeias in Portugal. The history of pharmacopoeias is also the history of the regulation the production of medicinal products, of the analytical control of drugs and medicines. Pharmacopoeias are directly related to public health. Pharmacopoeias play a decisive role in the control conducted by the State on the population's health.

The publication of the first Portuguese pharmacopoeia

The first edition of *Pharmacopea Lusitana*² was published in 1704. The subtitle of this book is *Methodo pratico de preparar & compor os medicamentos na forma Galenica com todas as receitas mais uzuais*. The author is friar D. Caetano de Santo António of the Monastery of Santa Cruz of the city of Coimbra. The book was

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² SANTO ANTÓNIO, D. Caetano de — Pharmacopea Lusitana. Coimbra: Joam Antunes, 1704 and facsimile edition: Santo António, D. Caetano de — Pharmacopea Lusitana (fac-simile, PITA, João Rui, ed.) Coimbra: Minerva, 2000.

published in the city of Coimbra by João Antunes. This is the first Portuguese pharmacopoeia. This pharmacopoeia was published in Portugal, written by a Portuguese apothecary and in Portuguese. It was an unofficial pharmacopoeia.

Its author, D. Caetano de Santo António (? -1730) was born in Buarcos, Figueira da Foz, a city, a beach, about 40 kilometres from the city of Coimbra. D. Caetano de Santo António was an apothecary at the Monastery of Santa Cruz in Coimbra where he performed the apothecary activity for some years. D. Caetano de Santo António joined the religious order in 1698.

The apothecary shop of the Monastery of Santa Cruz in Coimbra was a prestigious institution in Portugal. The apothecary shop of the Monastery of Santa Cruz reflects the importance of the convent pharmacy in the history of pharmacy and medicine in Portugal. In Portugal besides the apothecary shop of the Monastery of Santa Cruz in Coimbra there were other prestigious convent apothecary shops, for example, the apothecary shops of: The Convent of the Order of Christ (city of Tomar), Monastery of S. Vicente de Fora (Lisbon)¹, Convent of Mafra (Mafra), Convent of S. Domingos (Lisbon, Aveiro and Batalha), etc.

D. Caetano de Santo António moved from Coimbra to Lisbon. In 1709 he was already in Lisbon in the Monastery of S. Vicente de Fora. This is where he wrote the two following editions of *Pharmacopea Lusitana* (1711² and 1725³). D. Caetano de Santo António died in 1730. A posthumous edition of *Pharmacopea Lusitana* was published in 1754⁴.

The *Pharmacopeia Lusitana* shows how important the convent pharmacy was at that time in Portugal. The Portuguese religious apothecaries were very knowledgeable on pharmaceutical matters. This is an example among many. The interest in the pharmaceutical art and in the study of drugs and medicines can also be seen in the works published by the religious João Loureiro, João de Jesus Maria, Cristóvão dos Reis, Mariano da Conceição Veloso, etc.

¹ DIAS, J.P. Sousa; PITA, João Rui — A Botica de S. Vicente e a Farmácia nos mosteiros e conventos da Lisboa setecentista. In A Botica de São Vicente de Fora (catálogo de exposição). Lisboa: Associação Nacional das Farmácias, 1994. p. 19-25.

² SANTO ANTÓNIO, Caetano de — Pharmacopea Lusitana. 2ªed. Lisboa: Mosteiro de São Vicente de Fóra, 1711.

³ SANTO ANTÓNIO, Caetano de — Pharmacopea Lusitana. 3ªed.. Lisboa: Officina de Francisco Xavier de Andrade, 1725.

⁴ SANTO ANTÓNIO, Caetano de — Pharmacopea Lusitana. 4ªed. Lisboa: Mosteiro de São Vicente de Fóra, 1754.

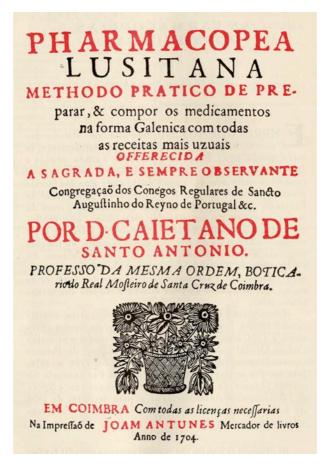


Fig. 1: Pharmacopea Lusitana (1704)

The importance of the medical and pharmaceutical library of the Monastery of Santa Cruz in Coimbra may be assessed by the books that have made it to today and are available at the Health Sciences Library¹.

Pharmacopea Lusitana had already been written in 1703. It has a total of 431 pages, 8 introduction pages and 12 pages of tables of content. There are various reasons why the author wrote this book: the need for a pharmacopoeia in the Portuguese language; facilitate the access to a pharmacopoeia in the Portuguese language to Portuguese apothecaries (only few apothecaries understood Latin and many books were written in Latin); make a book easy to acquire available to the

¹ Catálogos dos livros dos séculos XV, XVI, XVII e XVIII existentes na Biblioteca Central da Faculdade de Medicina de Coimbra. Coimbra: B.C.F.M.C., 1985. See the cover of the pharmacopoeias in: FONSECA, M. D. Tello da - História da Farmácia portuguesa através da sua legislação, 3 vols. Porto: Empresa Ind. Gráfica do Porto, 1935-1941.

Portuguese apothecaries (Portuguese apothecaries seldom bought foreign books); the need to replace the notes written by Portuguese apothecaries lacking in rigour ¹.

Pharmacopea Lusitana written by D. Caetano de Santo António was based on important authors of the time. In particular, uses Arab and European classical authors. There are around 100, including Amato Lusitano, Andrés Laguna, André Matíolo, Aristoteles, Arnaldo de Vilanova, Avenzoar, Avicena, Cristovão da Costa, Dioscórides, Duarte Madeira, Galeno, Gabriel Falópio, Garcia de Orta, Johann Zwelfer, João Curvo Semedo, João de Vigo, Luís de Oviedo, Mesué, Monardes, Rhazés, Silvio, Teofrasto, Zacuto Lusitano, etc. The French author Nicolas Lémery is not mentioned². But Lémery was a very important author and was an advocate of pharmaceuticals. The book is divided into an introduction and twelve parts: Proemimum Ex Dioscoride. Part 1 - Dos Canones de Mesué; Part 2 - Da Eleição de varios simples; Part 3 - Das Agoas compostas, vinagres & vinhos (total of 27 formulas); Part 4 - Dos Elegmas, ou Lochs, cozimentos, & conservas (total of 28 formulas); Part 5 - Dos Xaropes simples, & compostos (total of 66 formulas); Part 6 -Dos Electuarios purgantes, Hieras, & Confeiçoens Cordeais, & Opiatas (total of 51 formulas); Part 7 - Das Pirolas (total of 27 formulas); Part 8 - Dos Trociscos (total of 38 formulas); Part 9 - Dos Collyrios, & alguas receitas de pòs Magistralis (total of 5 formulas); Part 10 - Dos Oleos (total of 34 formulas); Part 11 - Dos Unguentos (total of 64 formulas); Part 12 - Dos Emplastos, & Cerotos (total of 41 formulas). The last chapter is on weights and measures: Tratado dos Pezos, & Medidas mais uzuais.

The author Mesué had greater influence on this pharmacopoeia (29% of preparations). *Pharmacopea Lusitana* is a Galenic pharmacopoeia, not a modern chemistry pharmacopoeia. American drugs are also not mentioned. However, *Pharmacopea Lusitana* contains formulas with American drugs, such as Sarsaparilla

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¹ PITA, João Rui — A Pharmacopea Lusitana de D. Caetano de Santo António ou quando se faz 'Divino o Remédio Humano'. In *Pharmacopea Lusitana*. Coimbra: Minerva, 2000. p. IX-XXV and BRITO, Maria Fernanda de — Ainda a Farmacopeia Lusitana de D. Caetano de Santo António. Revista da Ordem dos Farmacêuticos. 10 (1996) 56-57; PARENTE, Maria Celina — Farmacopeia Lusitana: privilégios. Revista da Ordem dos Farmacêuticos. 25 (1998) 46-47; PITA, João Rui — Os 300 anos da primeira farmacopeia portuguesa. A publicação da *Pharmacopea Lusitana* de D, Caetano de Santo António. CentroBeira Informação. 4 (2004) 20-24; PITA, João Rui; PEREIRA, Ana Leonor — A bela idade da Farmacopeia Portuguesa: 300 anos. Cadernos de Cultura. Medicina na Beira Interior. Da Pré-História ao Século XXI. 19 (2005) 85-94; PITA, João Rui; PEREIRA, Ana Leonor — Botica, farmacopeia conventual e farmácia. A *Pharmacopea Lusitana* de D. Caetano de Santo António (1704). In MARQUES, Maria Alegria Fernandes — Mosteiro e saúde — Cerca, botica e enfermaria. Actas do III Encontro Cultural de São Cristóvão de Lafões. São Cristóvão de Lafões, 2008. p. 95-107.

² DIAS, J.P. Sousa; PITA, João Rui — L'influence de la pharmacie et de la chimie française au Portugal au XVIII ème siècle: Nicolas Lémery. Revue d'histoire de la pharmacie. 300 (1994) 84-90.

Syrup. In the second edition of *Pharmacopea Lusitana*, in 1711, the book is geared towards Galenic and chemical pharmacy and American drugs are not valued.

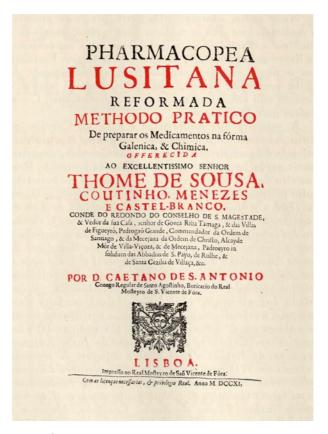


Fig. 2: Pharmacopea Lusitana (1711)

From Pharmacopea Lusitana (1704) to Pharmacopeia Geral (1794)

The first official pharmacopoeia was published in 1794. Many other pharmacopoeias were published in Portugal between 1704 and 1794. Many with different dimensions, interests and goals.

In 1713 D. Caetano de Santo António translated *Pharmacopea Bateana*, written by Jorge Bateo (new edition in 1763)¹. In 1716, *Pharmacopea Ulyssiponense*, by Jean Vigier (1662-1723)² was published. Vigier was a French apothecary who came to Portugal in the 18th century. For some time, he exercised the pharmaceutical art activity in Portugal but stood out mainly as a druggist. In 1714, he published *Thesouro Appolineo*, *Galenico*, *Chimico*, *Chirurgico*, *Pharmaceutico* where he addresses chemical drugs. *Pharmacopea Ulyssiponense* was the first book in Portugal to address

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¹ PARENTE, Maria Celina — Farmacopeia Bateana. Revista da Ordem dos Farmacêuticos. 27 (1999) 38-40

² VIGIER, João — Pharmacopea Ulyssiponense. Lisboa: Officina de Pascoal da Sylva, 1716.

the preparation of chemical medicinal products in an organised manner. Manuel Rodrigues Coelho (1687?-1752?) apothecary born in Setúbal (city about 50 kilometres from Lisbon) and apothecary of the Portuguese Court, published the first edition of *Pharmacopea Tubalense*¹ in 1735 (another part was published in 1751 and a new edition in Rome, in 1760²). This was the most widely circulated pharmacopoeia in Portugal in the 18th century. The reference authors include, Lémery, Mesué and the Portuguese author João Curvo Semedo, among others. *Pharmacopea Tubalense* brings together the Galenic and the chemical medicines.

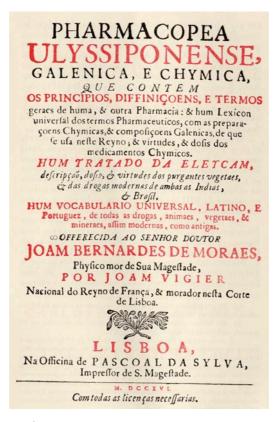


Fig. 3: Pharmacopea Ulyssiponense

Pharmacopea Portuense was published in 1766 by a surgeon from the city of Porto, António Rodrigues Portugal (1738-1788?)³. António Rodrigues Portugal also

¹ COELHO, Manuel Rodrigues — Pharmacopea Tubalense. Lisboa: Of. António de Sousa da Silva, 1735.

 ² COELHO, Manuel Rodrigues — Pharmacopea Tubalense. Roma: na Officina de Balio Geredini, 1760.
 ³ PORTUGAL, António Rodrigues — Pharmacopea Portuense. Porto: Officina de Francisco Mendes Lima, 1766. PINA, Luís de — No segundo centenário da primeira farmacopeia portuense de António Rodrigues Portugal (1776-1966). O Médico. Nova série. 45:840 (1967) 465-478.

translated *Pharmacopea Meadiana* by Ricardo Mead published in 1768¹ from Latin to Portuguese. The first part of *Pharmacopea Dogmatica*², written by the convent apothecary Friar João de Jesus Maria was published in 1772 (second part in 1777). The importance of the convent pharmacy in Portugal is further reflected in this book. A third volume of this book, which was not published, is still in manuscript in the Center of the Pharmaceutical Documentation of the Pharmacists Association in Coimbra. Frei João de Jesus Maria was a friar at the Monastery of Santo Tirso, a northern Portuguese city. Although *Pharmacopea Dogmatica* was written at the end of the 18th century, its first two volumes are not a modern pharmacopoeia, such as, for example, *Pharmacopeia Geral* (1794). This book mentions a large number of drugs. According to the author, the book attempts to reconcile Galenic and chemical medicines. Friar João de Jesus Maria wanted the book to be useful for physicians and apothecaries.



Fig. 4: Pharmacopea Tubalense (1735)

¹ MEAD, Ricardo — Pharmacopea Meadiana. Porto: Officina de Francisco Mendes Lima, 1768 (translaction: António Rodrigues Portugal).

² MARIA, João de Jesus — Pharmacopea dogmatica medico-chimica, e theorico-pratica. Porto: Officina de António Álvares Ribeiro Guimar, 1772.

Manuel Joaquim Henriques de Paiva (1752-1829)¹, apothecary and physician, the main promoter of medical, pharmaceutical, chemical, botanical works, etc. in Portugal in the late 18th century and early 19th century, published the first edition of *Farmacopéa Lisbonense* in 1785 (second edition in 1802)². Henriques de Paiva was convinced that there was a need to publish a new pharmacopoeia – a modern pharmacopoeia in a period of significant innovations for the pharmaceutical sector: chemical revolution of Lavoisier, the emergence of the Linnaeus's classification, the drifting apart of Galen's theories, etc.

The University of Coimbra was responsible for publishing an official pharmacopoeia according to the 1772 University Statutes. But because no official pharmacopoeia had been published until 1785, Henriques de Paiva felt that he needed to publish a modern and practical pharmacopoeia for physicians and apothecaries. The second edition of *Farmacopéa Lisbonense* published in 1802 was updated. Manuel Joaquim Henriques de Paiva wanted *Farmacopéa Lisbonense* to be an incentive for the publication of an official pharmacopoeia in Portugal. In his opinion, the lack of any official pharmacopoeia in Portugal imperilled private and public health.

The publication of official pharmacopoeias and the normalization of medicines.

The first official Portuguese pharmacopoeia *Pharmacopeia Geral* ³ was published in 1794. It was written by the professor of pharmacy of the Faculty of Medicine of the University of Coimbra, Francisco Tavares (1750-1812). Francisco Tavares was, probably one of the most prestigious professors of the university. He was born in Coimbra, son of Manuel António Tavares, and studied medicine in this university, having completed his degree on 20 July 1771. The *Pharmacopeia Geral* was published twenty-two years after having been recommended by the University Statutes in 1772. It appears due to the need for uniformisation of criteria and in an

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¹ PITA, João Rui — Contributos para a história das farmacopeias portuguesas. Manuel Joaquim Henriques de Paiva e a Farmacopéa Lisbonense. Cadernos de Cultura. A Medicina na Beira Interior. Da Pré-História ao Século XXI. 22 (2008) 126-130.

² PAIVA, Manuel Joaquim Henriques de — Farmacopéa Lisbonense. Officina de Filipe da Silva e Azevedo, 1785. Farmacopéa Lisbonense. Lisboa: Officina Patriarcal de João Procopio Correa da Silva, 1802. PAIVA, Manuel Joaquim Henriques de (translaction) — Pharmacopoeis Collegii Regalis Medicorum Londinensis. Olisipone: Ex Typograf. Regalis Academiae Scientiarum Olisiponensis, 1791.
³ PITA, João Rui — Um livro com 200 anos: a farmacopeia portuguesa (Edição oficial). A publicação da primeira farmacopeia oficial: *Pharmacopeia Geral* (1794). Revista de História das Ideias. 20 (1999) 47-100.

attempt to improve the quality of medical care provided. The book is made up of two volumes, the first subtitled "Elements of Pharmacy" the second "Simple Medicines, preparation and composition". Francisco Tavares adapted two books that he had already published to create *Pharmacopeia Geral*. Francisco Tavares combined and adapted his books *De pharmacologia libellus*¹ (edited in 1786) and *Medicamentorum sylloge* ² (edited in 1787). *Pharmacopeia Geral*³ presents a lengthy set of formulas. *Pharmacopeia Geral* includes 252 formulas of medicinal products. 60% of these formulas are taken from *Pharmacopoeia Edimburgensis*, 13% are from *Pharmacopoeia Suecica*, 10% were taken from *De Pharmacologia Libellus* and 3% were taken from *New Dispensatory* (Lewis) and from *Pharmacopoeia Londinensis*⁴.

According to the Statutes of the University of Coimbra of 1772, the faculty of Medicine of the University of Coimbra was entrusted with the publication of an official pharmacopoeia. This pharmacopoeia marks the beginning of the publication of official pharmacopoeias in Portugal. The pharmacopoeia of 1794 published three editions in 1822, 1823 and 1824, equal to the first. The study of the pharmacopoeia of 1794 has already been studied in depth. It should however be highlighted that when it was first published, the work was already outdated from a scientific perspective. It was the official pharmacopoeia and was subject to various contestations from specialists of that period.

The issues which served as the basis for the publication of the first official Portuguese pharmacopoeia were the following: the normalization of raw materials and the techniques necessary for the production of medicines; the normalization of the medical pharmacopoeia; the normalization of the teaching of pharmacy, considering that this body of work served as the basis for the teaching of pharmacy. For the State, health, both public and private, would be at risk if the production of medicines was not normalized. The publication of an official pharmacopoeia would therefore contribute

¹ TAVARES, Francisco — De pharmacologia libellus academicis praelectionibus accomadodatus. Conimbricae: Typographia Academico Regia, 1786.

² TAVARES, Francisco — Medicamentorum sylloge propriae pharmacological exempla sistens in usum academicarum praelectionum. Conimbricae: Typographia Academico Regia, 1787.

³ Pharmacopeia Geral para o reino, e domínios de Portugal. 2 vols. Lisboa: Regia Oficina Tipográfica, 1794. PITA, João Rui — A Pharmacopeia: Geral a primeira farmacopeia official portuguesa. In Pharmacopeia Geral para o Reino, e Domínios de Portugal. Coimbra: Imprensa da Universidade de Coimbra, 2014. [pp. 3-22]

⁴ PITA, João Rui — A Farmácia na Universidade de Coimbra (1772—1836). Ciência, ensino e produção de medicamentos no Dispensatório Farmacêutico. Coimbra: Univeridade de Coimbra, 1996 vol. 1, p. 244.

to achieving the goal of normalization and support the international sanitary movement of affirmation of public hygiene¹.

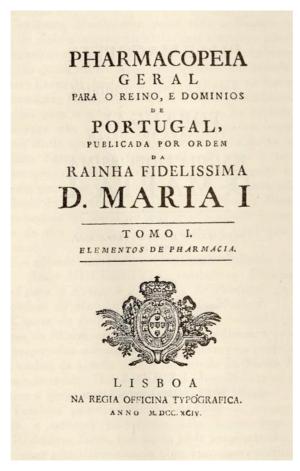


Fig. 5: Pharmacopeia Geral (1794)

Pharmacopeia Geral raised a lot of criticism because when it was published for the first time in 1794 it was a little outdated from a chemical point of view. And remained outdated in the following editions since they were similar to the original edition.

The unofficial pharmacopoeias in Portugal between 1794 and 1835

Pharmacopeia Geral was replaced by the second official Portuguese pharmacopoeia, Codigo Pharmaceutico Lusitano, published in 1835. However, because Pharmacopeia Geral was outdated private pharmacopoeias continued to be

¹ SONNEDECKER, Glenn — The founding period of the U.S. Pharmacopeia. I. European Antecedents.

Pharmacy in History. 35:4 (1993) 151-162.

published between 1794 and 1835. These works were generally very up to date from a scientific perspective.

Manuel Joaquim Henriques de Paiva published the second edition of Farmacopéa Lisbonense¹. The book is not detailed on the description of drugs, but uses Lavoisier's new chemical nomenclature. In 1805, the apothecary António José de Sousa Pinto published the book *Elementos de Pharmacia*, Chymica, e Botanica². This book was very up-to-date and intended to renovate the chemical nomenclature applied to medicinal products. Still in 1805, António José de Sousa Pinto published Pharmacopea Chymica, Medica e Cirurgica³. In 1819 the surgeon Jacinto da Costa published *Pharmacopea naval e castrense*⁴. A book made up of two volumes. The first volume covers the drugs used in treatment and the second one deals with practical pharmacy. In 1826, Materia medica e formulario pharmaceutico para uso dos hospitaes do exercito portuguez⁵ was published. In 1828, Formulario Geral medicocirurgico⁶ was published intended for the Hospital de S. José in Lisbon, written by physicians and surgeons which resulted from the experience of these doctors at that hospital. In 1833, the bachelor of medicine B.J.O.T. Cabral published *Pharmacopea* das pharmacopeas nacionaes e estrangeiras⁷. This pharmacopoeia was a compilation of prestigious foreign pharmacopoeia formulas. The Baumé, Edinburgh, France, Spain, London by Lewis, by Palacios, Suecica, Tubalense, Lusitana, etc. pharmacopoeias were mentioned.

Francisco Tavares, the author of *Pharmacopeia Geral* himself, wrote a book to update *Pharmacopeia Geral*. A book with the title *Pharmacologia*. This book was published in 1809⁸ and a posthumous edition in 1829⁹.

¹ PAIVA, Manuel Joaquim Henriques de - Farmacopéa Lisbonense. 2ª ed. Lisboa: Officina Patriarcal de João Procopio Correa da Silva, 1802.

² PINTO, António José de Sousa — Elementos de Pharmacia, Chyimica, e Botanica. Lisboa: Impressão Regia, 1805.

³ PINTO, António José de Sousa — Pharmacopea Chymica, Medica, e Cirurgica. Lisboa: Impressão Regia, 1805.

⁴ COSTA, Jacinto da — Pharmacopea naval e castrense. 2 vols. Lisboa: Impressão Regia, 1819.

⁵ Materia medica e formulario pharmaceutico para uso dos hospitaes do exercito portuguez. Lisboa: Impressão Regia, 1826.

⁶ Formulario Geral medico-cirurgico para o Hospital Real de S. Joze da cidade de Lisboa. Lisboa: Impressão da Viuva Neves e Filhos, 1828.

⁷ CABRAL, B.J.O.T. — Pharmacopea das pharmacopeas nacionaes e estrangeiras. 2 vols. Lisboa: Impressão Regia, 1833.

⁸ TAVARES, Francisco — Pharmacologia novis recognita curis, aucta, emendata, et hodierno saeculo accommodate. Conimbricae: Typis Academicis, 1809.

⁹ TAVARES, Francisco — Pharmacologia novis recognita curis, aucta, emendata, et hodierno saeculo accommodate. Conimbricae: Typographia Academico Regia, 1829.

Pharmacopoeias from the late nineteenth to the twentieth century

During the 19th century and the first half of the 20th century three official pharmacopoeias were published in Portugal: the *Codigo Pharmaceutico Lusitano* (1st edition, 1835), the *Pharmacopoêa Portugueza* (1876) and the *Farmacopeia Portuguesa* (1st edition, 1935).

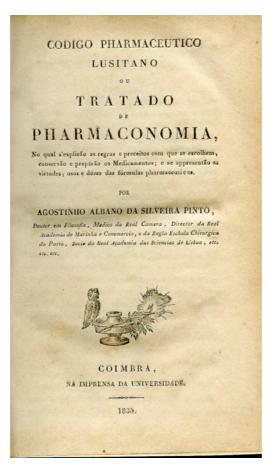


Fig. 6: Codigo Pharmaceutico Lusitano (1835)

The *Codigo Pharmaceutico Lusitano* was written by Agostinho Albano da Silveiro Pinto (1785-1852), holder of a PhD in Philosophy and Medicine. The author presented his work to the Faculty of Medicine of the University of Coimbra with the aim of replacing the *Pharmacopeia Geral* of 1794¹. The pharmacopoeia of 1835 arises as a result of the continuation of a project begun in 1794 and which reinstates an

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PITA, João Rui — Farmácia, Medicina e Saúde Pública em Portugal (1772-1836). Coimbra: Minerva,
 1996, p. 229. PITA, João Rui — Plantas medicinais da primeira farmacopeia oficial portuguesa
 (Pharmacopeia Geral, 1794). Munda. 30 (1995) 57-68; JANEIRA, Ana Luísa; CARNEIRO, Ana Maria
 — Quando uma rainha regulamenta o bem-estar dos seus fiéis vassalos. Prelo. 6 (1985) 95-103.

"observation on the physical, organic and moral state of the populations (...) which aspires to the hygienic control of the social body according to transparent and uniform practices dictated sovereignly". The subtitle of *Codigo Pharmaceutico Lusitano* was *Treaty of Pharmaconomy*. It was made up of two large parts. The first part was a

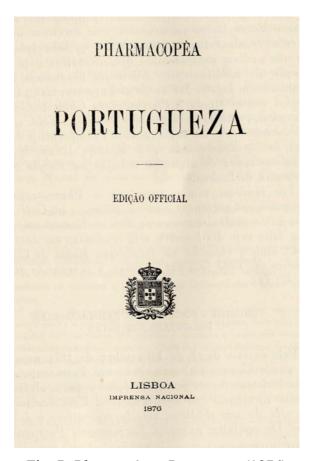


Fig. 7: Pharmacôpea Portugueza (1876)

treaty of pharmaceutical techniques; the second part was designed by *Pharmacopéa* and was a list of raw materials and medicines. It included various active substances extracted from vegetables and salts such as morphine, narcotine, quinine, etc. The work accentuates the normalizing sense necessary to the production of medicines. The author says: "the book that comprises the rules, precepts or *laws*, according to which *medicines* are known, conserved, manipulated or prepared will have a right to be entitled *Codigo Pharmaceutico*". The existence of these *rules, precepts* or *laws* had to do directly with the function of medicines on the organism as they were considered

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¹ PEREIRA, Ana Leonor; PITA, João Rui — Liturgia higienista no século XIX. Pistas para um estudo. Revista de História das Ideias. 15 (1993) 462.

² PINTO, Agostinho Albano da Silveira — Codigo Pharmaceutico Lusitano ou Tratado de Pharmaconomia. Coimbra: Imprensa da Universidade, 1835. p. I.

"modifiers and reagents of the human body". Various modern authors are referred, such as Chevreul, Virey, Chevalier, Souberain, among others. All the editions of the Codigo Pharmaceutico Lusitano published since 1835 (1836, 1841, 1846, 1858 and 1876)² are in line with the first edition: the update and medicine production and the defence of the interests of the public health of the population. In the 1858 and 1876 the posthumous edition, organized by the physician José Pereira dos Reis, includes a list of antidotes for poisonings and a set of reagents to evaluate the properties of medicines, including falsifications which further accentuates the interest of the pharmacopoeia in the defence of public health³. In 1838 a commission was set up to draw up a new official pharmacopoeia. Three years later the work was ready but was never published as an official pharmacopoeia⁴. The *Codigo* was enforced until 1876. The third official Portuguese pharmacopoeia was published in that same year: The Pharmacôpea Portugueza⁵. The edition of the original pharmacopoeia was no longer of the responsibility of the Faculty of Medicine of the University of Coimbra and for the first time was drawn up by an Official Commission (Chairman: Bernardino António Gomes, physician). The *pharmacopoeia* was mainly made up of a formulary and a set of raw materials, not including any part dedicated to technical pharmacy as previously occurred. The work boldly defends public and private health through the normalization of the preparation of medicines and the exercise of professional pharmacy. The function of an official pharmacopoeia was said to be "to perfect and standardise the pharmacy practice" 6. One of the most serious problems of the 1876 pharmacopoeia was that it was enforced for too long (almost 6 decades) in a period of

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¹ Idem, p. XII.

² PINTO, Agostinho Albano da Silveira — *Codigo Pharmaceutico Lusitano*. 2ª ed. Porto: Typographia Commercial Portuense, 1836; PINTO, Agostinho Albano da Silveira — *Codigo Pharmaceutico Lusitano*. 3ª ed. Coimbra: Imprensa da Universidade, 1841; PINTO, Agostinho Albano da Silveira — *Codigo Pharmaceutico Lusitano*. 4ª ed. Porto: Typographia da Revista, 1846; PINTO, Agostinho Albano da Silveira — *Codigo Pharmaceutico Lusitano*. Porto: Typographia da Revista, 1858 (1st edition posthumous by José Pereira Reis); PINTO, Agostinho Albano da Silveira — *Codigo Pharmaceutico Lusitano*. Porto: Em Casa de A.B. da Cruz Coutinho, Editor, 1876 (2nd edition posthumous by José Pereira Reis).

³ PITA, João Rui — O Codigo Pharmaceutico Lusitano (1835), a segunda farmacopeia oficial portuguesa (2015). In Codigo Pharmaceutico Lusitano ou Tratado de Pharmaconomia (ed. facsimile). Coimbra: Imprensa da Universidade de Coimbra [pp.7-38].

⁴ DIAS, J.P. Sousa — De Pombal ao Estado Novo: a Farmacopeia Portuguesa e a História (1772-1935). Medicamento, História e Sociedade, Nova série, 6 (1995) 3.

⁵ PITA, João Rui — A Pharmacopêa Portugueza de 1876: a terceira farmacopeia oficial portuguesa. In Pharmacopêa Portugueza (ed. facsimile). Coimbra: Imprensa da Universidade de Coimbra, 2016, p. 9-18.

⁶ Pharmacopêa Portugueza. Lisboa: Imprensa Nacional, 1876. p. XI.

pharmaceutical revolution¹. Consequently, it quickly became outdated in a key period of scientific and technical innovation².

In the early 20th century several commissions were appointed for the publication of a new pharmacopoeia: in 1903 and in 1913. The work was never completed due to political and corporate reasons. The pharmacopoeia of 1876 was replaced by the *Farmacopeia Portuguesa* IV published in 1935³. *Farmacopeia Portuguesa* IV was written by a commission of pharmacists (Chairman, Bernardino Álvaro Vicente de Pinho) who used other foreign pharmacopoeias and other international reference works.

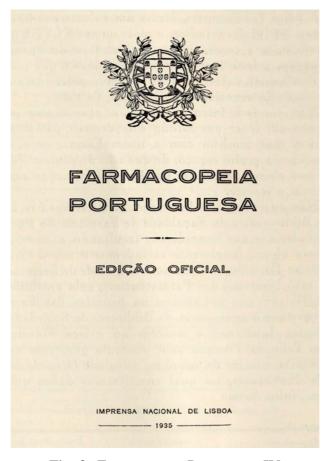


Fig. 8: Farmacopeia Portuguesa IV

¹ PUERTO SARMIENTO, F.J. — El mito de Panaceia — Compendio de Historia de la Terapéutica y de la Farmacia. Madrid: Ediciones Doce Calles, 1997. p. 553-621.

² CHAST, François — Histoire contemporaine des medicaments. Paris: La Découverte, 1995; CHAST, François — Les medicaments. In: GRMEK, Mirko D. (Dir.) — Histoire de la pensée médicale en Occident. vol. 3. Paris: Seuil, 1999. p. 215-233.

³ Farmacopeia Portuguesa. Edição Oficial. Lisboa: Imprensa Nacional de Lisboa, 1935.

The commission was comprised of five members of which two were linked to pharmaceutical inspections and three to the army and navy pharmacy. It was published after the political revolution de 28 May 1926, which marks the end of the First Republic and the political regime that ended in 1974. Farmacopeia Portuguesa IV introduced several innovations at the level of drugs and medicines. The second edition of this pharmacopoeia was published in 1946¹ and an annex in 1961. The 1946 edition and the supplement (1961) attempted to update the book with regard to technical and scientific innovations. Farmacopeia Portuguesa IV included several drugs that were very important in preventive medicine — vaccines. For example: the 1946 edition again includes the diphtheria vaccine, tetanus vaccine, updated smallpox vaccine clinical trials, a monograph on insulin, etc. The supplement of 1961 mentions the Permanent Commission of the Portuguese Pharmacopoeia (1957) whose goal was the periodic review of the Portuguese Pharmacopoeia. Farmacopeia Portuguesa IV remained officially in force until 1986.

Farmacopeia Portuguesa V^2 , the fifth official Portuguese pharmacopoeia was published in 1986. It was written by an official commission (Chairman: Barros Polónia and on an interim basis, Luís Nogueira Prista, professor of the Faculty of Pharmacy of the university of Porto) and was the first Portuguese pharmacopoeia marked by the Farmacopeia Europeia. The sixth official Portuguese pharmacopoeia, Farmacopeia Portuguesa VI³ was published in 1997 by the Commission chaired by Rui Morgado, professor of the Faculty of Pharmacy of the University of Porto; this work included supplements in 1998, 1999, 2000 and 2001. The Portuguese pharmacopoeia was the first one to be edited under the full responsibility of INFARMED - Instituto Nacional da Farmácia e do Medicamento (National Institute of Pharmacy and Medicine) currently known as Autoridade Nacional do Medicamento e Produtos de Saúde I.P. (National Authority for Medication and Health Products, P.I.). Farmacopeia Portuguesa VII⁴, the seventh official Portuguese pharmacopoeia, was published in 2002. The author was an official commission also chaired by Rui Morgado, made up of two volumes. It is published every three years

¹ Farmacopeia Portuguesa IV. 2.ª ed. Lisboa: Imprensa Nacional de Lisboa, 1946.

 ² Farmacopeia Portuguesa V. Lisboa: Imprensa Nacional - Casa da Moeda, 1986.
 ³ Farmacopeia Portuguesa VI. Lisboa: Ministério da Saúde, Infarmed,1997.

⁴ Farmacopeia Portuguesa VII. Lisboa: Ministério da Saúde, Infarmed, 2002.

and became available for the first time in CD Rom. *Farmacopeia Portuguesa VIII*¹ was published in 2005 and was an adaptation of the fifth edition of Farmacopeia Europeia. *Farmacopeia Portuguesa IX*² is currently in force, the fourth one will be published under the responsibility of INFARMED since its creation in 1993. This pharmacopoeia was published in 2008. This work had eight supplements: three in 2008; two in 2009; and three in 2010. As had been going on since 1986, this pharmacopoeia is in close coordination with the *European Pharmacopoeia*³.

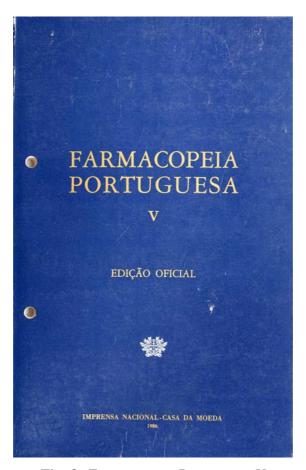


Fig. 9: Farmacopeia Portuguesa V

Conclusion

Pharmacopoeias in Portugal, written by Portuguese authors in the Portuguese language have existed since the 18th century. Portuguese pharmacopoeias attempted to transpose the scientific innovations and foreign techniques to Portugal. Physicians

¹ Farmacopeia Portuguesa VIII. Lisboa: Ministério da Saúde, Infarmed, 2005.

² Farmacopeia Portuguesa IX. Lisboa: Ministério da Saúde, Infarmed, 2008.

³ CONCEIÇÃO, J.; PITA, J.R.; ESTANQUEIRO, M.; LOBO, J.S. — As farmacopeias portuguesas e a saúde pública. Acta Farmacêutica Portuguesa. 3:1 (2014) 47-65.

and pharmacists have had a very important role in the drafting of the Portuguese pharmacopoeias throughout its 300-year history. Throughout history, pharmacopoeias have always had very important objectives: establish standards on drug and medicine analysis; improve the quality of medicine; improve private and public health; be an important support to physicians and pharmacists.