#### MEDICINES, APOTHECARIES AND SOCIETY, IN LATIN COUNTRIES.

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Medicines are not goods like others. They have an ambiguous behaviour and can be the best or the worse. This ambiguous nature is expressed by the ambivalent signification of the Greek word  $\phi\alpha\rho\mu\alpha\kappa\sigma\nu\Box(pharmacon)$ , which means both medicine and poison. In Latin countries, this specificity has always been highly perceived by the Society. The ambivalence of this product, which can be either beneficial for health, when it is used carefully, or can kill, when the doses are too high, leaded authorities to elaborate regulations in order to control both the preparation and the distribution of drugs and medicines. These remedies had to be prescribed by physicians, and people specifically in charge of preparing and distributing medicines were called apothecaries. This word was formed from the Greek  $\alpha\pi\sigma\theta\eta\kappa\eta$  (apotheque), which meant, "place where goods were kept, warehouse". It gave in Latin apothecarius, a word used, since the 6th century, to designate a monk who was in charge of the health of the members of his religious community. It gave in French apothicaire, in German apotheker, and in English apothecary, and it was then applied to civil people preparing and distributing medicines to the population.

### Appearance of apothecaries in Latin countries.

The appearance of apothecaries in Occident was linked to the appearance of Universities. During the 13<sup>th</sup> century, in Paris Bologna Oxford, Montpellier, Salamanca, Toulouse, Universities were created. Physicians accessing to a University position, became doctors of Medicine and felt that they could not work anymore with their hands. They then left to surgeons, the activity that consisted in cutting bodies, and to apothecaries, the activity of preparing and distributing medicines.

As soon as apothecaries appeared, they were submitted to regulations.

#### The constitutions of Melfi.

Frederick II, Hohenstaufen (1194-1250), was the grandson of Frederick I Barbarossa, Emperor of the Holy German Roman Empire, and the grandson of Roger II (1095-1154), Norman King of Sicily, he was then both Holy German Emperor and King of Sicily. He was a very clever man, highly interested in sciences, and a cautious diplomat, who succeeded in convincing Sultan Al-Khamil of Egypt to let him become pacifically King of Jerusalem. Ambiguous character, he was also capable of acting with a great cruelty, even inside his own family. He was an admirer of Augustus, and with the help of his chancellor, Pier della Vigna, he redacted or ordered to redact a code of laws, named "Liber augustalis", which was enacted in 1231, in the castle of Melfi, and, for that reason, called "Constitutions of Melfi". It is considered as the first collection of European regulations dealing with medicines making and apothecaries. An important point has to

be noticed; these regulations concerned only the Italian states of Frederick II, i.e. Sicily and the southern part of Italy, but not his German states.

Title XLVII, (24), dealt with medicines:

« In every territory of our kingdom subject to our jurisdiction, we desire that two circumspect and trustworthy men should be appointed and be held by a corporal oath, and their names should be sent to our court, and under their verification medical lozenges, broths, and other medicines may be made legally. Once they have been made, they may be sold. »

Constitutions of Melfi, 1231.

The original Latin text says: "electuaria et syrupi". The published English translation by James M.Powell, from the University of Syracuse, USA, was "lozenges and broths". The correct translation should have been "electuaries and syrups". The text was completed by more precisions:

"We also desire that those making medicines should be obliged by an oath sworn corporeally that they will make them faithfully according to the arts and the conditions of men in the presence of sworn witnesses. If they act contrary, they should be condemned by sentence to the confiscation of all their goods. But if those appointed, to whose trust the aforesaid matters have been committed are proved to have committed frauds in the office granted to them, we order that they should be put to death."

Frederick II was not joking when speaking of medicines making!

In 1241, complementary *Novae Constitutiones Regni Siciliae* were published and some titles of these dealt with pharmacy, especially in Book III:

"The *confectionnarii* will prepare medicines at their own expense, under the control of Physicians, according to what we ordered and they will be allowed to keep drugs, only after they have taken an oath, and they will have to prepare their medicines faithfully and without any fraud." *Liber III, titulus XLVI.* 

The word used for people in charge of preparing medicines was « *Confectionarii* », but the word « *apothecarii* » was not used in the original Latin text. So, it is not correct to translate it as apothecaries, it is an anachronism.

The question of money was not avoided:

"The stationarius will receive money for his drugs, according to the following rules: He will receive three tarens per ounce, for composed medicines and for the simples that cannot be kept in stores more than one year after the day they have been bought. He will receive six tarens per ounce for medicines that can be kept for more than one year."

This distinction between medicines that could be kept for a long time or not, is quite original and shows a good knowledge of the authorities concerning the daily practice of medicines trade.

It is interesting to comment on the word stationarius. This term was used to precise that the merchant in question was stating in a specific place and not an itinerant one.

These documents mentioned also the restriction of the number of places where medicines could be sailed: "Similar stations will not be situated everywhere, but only in some towns of the Kingdom."

Connivance between physicians and apothecaries was strictly forbidden:

"That he [the physician] must not have any partnership with confectionarii [apothecaries].

Practice of pharmacy was strictly forbidden for physicians:

"That he could not agree to cure a patient, including the preparation of medicines for a price already determined, and that he could not have a shop of his own."

## Communities of apothecaries' period in Latin countries.

Since the 13<sup>th</sup> century, communities of apothecaries were set up. They were called, according to the countries: guilds, communautés, arti, corporación or corporação. They received statutes regulating the preparation and the distribution of medicines, which were more or less inspired by the Constitutions of Melfi. They mentioned the way which has to be followed, in order to become a master, how many years of apprenticeship were necessary, how many years of service in the shop of an established master had to be accomplished before the examination could take place. First of all, the knowledge of the Latin language had to be controlled, because most of texts dealing with medicines were written in Latin, as well as all prescriptions of doctors of medicine. Then the examination itself was divided into three main parts, which could themselves be divided into many subparts. The Reading Act consisted in reading and explaining Latin texts dealing with medicines making, and in answering to the questions asked by the members of the jury concerning these texts. The Herbs Act consisted in the identification of living plants, of parts of plants and of drugs, and in making comments about the properties of the drugs. Then came the solemn execution of the masterpiece, consisting in the preparation of medicines, generally between five to eight different compositions. When the candidate was judged capable of becoming a master, he had to take a solemn oath, in the presence of authorities. The jury of the examination was composed of doctors of medicine (often two) and apothecaries (often the guards of the community, or a certain number of masters). The statutes organized the daily life of the community, the modalities of the election of the guards (people at the head of the community), the way assemblies of masters had to be held and the repartition of taxes amongst the members of the community. A specific attention was given to the inspection of apothecaries' shops, they were usually made by two doctors of medicine, the guards of the community and, sometimes, but not always, a police officer.

These statutes plaid also the role of a kind of code of ethics, mentioning that apothecaries had to practice the true price and to avoid "qui pro quo", i.e. the replacement of a prescribed drug by another, supposed to be equivalent. It was strictly forbidden for apothecaries to have connivance with physicians prescribing medicines. These regulations defined a monopoly: apothecaries were the only people allowed to prepare and to distribute medicines. Grocers, as well as doctors of medicine were not allowed to sell medicines.

Reference books of official formulations were also mentioned. First, *Antidotarium Nicolae* was used as official pharmacopoeia and it had to be owned by all apothecaries. Then printed pharmacopoeias appeared, the first to be published, in 1496, was the famous *Ricettario Fiorentino*, which was followed by many other books. For example, the *Pharmacopoeia* by Laurent Joubert was first published in Latin, in 1578, for the use of Montpellier's apothecaries.

Economical theories and their influence on the regulations concerning medicines.

#### Mercantilism period.

During the period between the 16th century and the first half of the 18<sup>th</sup> century, the dominant economical ideology in Europe was Mercantilism. According to that doctrine, the prosperity of Nations was depending upon their supply of capital and the global volume of international trade was unchangeable. The term capital was sometimes replaced by "bullion", and mercantilism was then called bullionism; it was especially the case in Spain. In France, it was often named colbertism, by reference to Jean-Baptiste Colbert (1619-1683), the minister of Louis XIV. The capital was considered as constituted of gold, silver and trade volume, held by the State. State was supposed to play a protectionist role in economy, in order to increase its trade balance. This economical theory did not interfere much with the trade of medicines. It encouraged the production of exotic drugs in the colonies ruled by European countries. The most important thing remained to promote security in the preparation and the distribution of drugs and medicines to patients. The monopoly of the communities of apothecaries, under the control of strict regulations, was still considered as the best way to do so.

#### End of communities period and economic liberalism.

A new way of thinking, called "economic liberalism" appeared during the second half of the 18th century. A Dutch philosopher, Bernard de Mandeville (1670-1733) had already published in 1714 the first liberal book, entitled "The Fable of the Bees Or Private Vices, Publick Benefits". A French doctor of medicine François Quesnay (1694-1774) wrote an "Economic Table" in 1758, and was the founder of the Physiocratic school. Vincent de Gournay (1712-1759) found the motto of Liberalism: "Let do and let pass!" "The world goes on by itself". The signification of this sentence was: let men do and let merchandises pass. Then came a Scottish philosopher, Adam Smith (1724-1790) who wrote:"An inquiry into the nature and the causes of the wealth of nations" in 1776. What were the ideas of the supporters of this 18<sup>th</sup> century economic liberalism? Schematically, they intended to eliminate government intervention on economy and they considered that State should not interfere in the market. More specifically, they considered that guilds were an obstacle to economy development. These new ideas had consequences for medicines. A conflict took place between two contradictory leanings. On one side, Liberalism prescribed that no intervention of State should occur in medicine trade. But, on the other side, the major part of the population, including most Liberal supporters, felt that it was necessary, for security reasons, to control the preparation and of the dispensation of medicines.

# **Example of France.**

The example of the way this contradiction was solved in France gives interesting information. Anne Robert Jacques Turgot (1727-1781) was a member of the physiocratic school, but he was also the Minister of Finance of France. He had published in 1776 "Reflections on the formation and distribution of wealth". He decided, as minister of Finance, and according to his liberal ideas, in 1776, the suppression of guilds. Anyway, three professions had to be excluded: publishers and booksellers, for police

reasons, goldsmiths, for financial reasons and apothecaries, for public health reasons. The "Édit du Roi portant suppression des Jurandes & Communautés de Commerce, Arts & Métiers." mentioned: "We do not intend to include in these measures the professions of Pharmacy, Goldsmith's trade and Bookselling."

Anyway, new regulations organizing the practice of Pharmacy appeared on April 22<sup>nd</sup> 1777. During the reign of King Louis XVI, the "Declaration du Roi portant règlement pour les Professions de la Pharmacie & de l'Épicerie de Paris." (in English, Declaration of the King regulating the professions of Pharmacy and Grocery) was published. Apothecaries became Masters of Pharmacy, a College of Pharmacy was created and public lectures were officially organized for students. Qualified masters of Pharmacy were the only people allowed to prepare and to sell medicines. Grocers and members of religious communities were not. On the other hand, Masters of Pharmacy were not allowed to practice any grocery trade. Once again, security reasons prevailed over free enterprise reasons and it was conform to the general opinion of the Society: "Medicines are not goods like others."

### Hesitations during the French Revolution period.

A new attempt was made by economical liberalism supporters. They obtained the publication of a new decree, redacted by Baron d'Allarde, which became the Law of March 2<sup>nd</sup> 1791. This text said that: "Since April 1791, it will be free for anyone to do any trade or to practice any profession, art or craft that he will wish to do, but he will have to pay trading dues before". This time, medicines were included in the area of the Law. Some abuses must have quickly taken place, because 14 days later, it became a matter of urgency to restore the previous laws concerning the practice of pharmacy. A decree was then published on April 14th 1791, which became, on April 17th 1791, a Law, entitled: "Loi relative à l'exercice de la Pharmacie & à la vente & distribution des Drogues & Médicamens" (In English, Law concerning the practice of Pharmacy and the sale and the distribution of Drugs and Medicines). This text said: "The "Assemblée Nationale", according to the suggestion of its Committee of Healthiness on abuses that occurred in the practice of Pharmacy, and considering the object and the usefulness of this profession orders that Laws, Statutes and Rules existing before last March 2<sup>nd</sup> concerning Pharmacy practice and education for preparation, sale, distribution of drugs and medicines will be implemented as they were before."

Anarchy had lasted no longer than two weeks!

# **Confirmation during the Consulate** (1799-1804).

When Napoleon Bonaparte was First Consul, a new law was inspired by the chemist Antoine de Fourcroy. It was listed in the "Bulletin des Lois de la République française", as Law number 270, and it is known as the "Loi du 21 Germinal An-XI", or Law of April 11<sup>th</sup> 1803. It organized pharmaceutical education in Schools of Pharmacy and confirmed the monopoly of qualified pharmacists for the preparation and the distribution of medicines.

The spirit of this text, which has been amended many times, is still kept in the contemporary laws regulating Pharmacy education and practice in France.