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Legal regulation of the supply of medicines to the army and the public in the Russian Empire in the first half of the 19th century*

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Abstract

The authors of this article have attempted to identify the main trends in the policy of the government of the Russian Empire regarding the supply of medicines to the army and the public in the first half of the nineteenth century. An analysis of resolutions and ukases of the first half of the nineteenth century shows that, with the advent of the political concepts of medical police and cameralism, the Russian state took responsibility for its citizens' lives and health. This meant providing them with health care, including formulated medicines and imported medicinal plants. The main trends in legal policy regarding health care in this period were the expansion of the network of apothecaries, the professionalisation of their activities, the establishment of state control over the prices and quality of medicinal materials, and the prioritisation of potential patients depending on their benefits to the state. Public officials were guaranteed the opportunity to receive health care from state doctors and medicines from state apothecaries by law. The rest of the population paid for their treatment and medicines themselves. Representatives of the military authorities, who not only defended the Russian state against internal and external enemies, but also took part in the fight against epidemics, were in the most privileged position. They were treated with medicines from a reserve apothecary. Large-scale and expensive purchases for this were more than once the object of conflict and disputes among military administrators.

Keywords

history of medicine, apothecary business, apothecary legislation, supply of medicines, healthcare law

The first half of the nineteenth century saw major changes to university medicine, which historians have termed the "second scientific revolution" (of the eighteenth to the nineteenth century). The scientific discoveries influenced ideas about human health, the possibilities of clinical medicine and scientifically proven pharmacy (Stochik, Zatravkin, Stochik 2013a, p. 5), as well as public attitudes to them. As a result, many European governments changed their healthcare policies

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and their attitudes to the apothecary business and the supply of medicines. This article sheds light on these developments through the Russian legal and administrative documents stored in the Russian State Military Historical Archives and published in the 45-volume *Complete Collection of the Laws of the Russian Empire*.

There were around 100 apothecaries in Russia by the end of the eighteenth century, and more than 700 by the middle of the nineteenth (Varadinov 1858–1863, pt. 3, bk. 3, p. 570). They provided health care to the public, for which purpose they not only engaged doctors but also used the advice of apothecaries and their assistants, as well as supplies of medicinal products and plants. Unfortunately, the apothecary business in Russia has been little studied by historians. There are just a small number of foreign publications examining Russia's involvement in the global drug trade in the seventeenth century (Chakrabarti 2010; Griffin 2020; Griffin 2017) and the role of apothecaries in the Russian medical profession in the eighteenth (Renner 2010). An important contribution to knowledge on this topic has been made by publications by Russian researchers drawing on nineteenth-century sources (Egorysheva and Goncharova 2016; Poddubnyy et al. 2014; Stotchik and Zatravkin 2012; Stotchik, Zatravkin, Stotchik 2013b; Sherstneva and Egorysheva 2017),[1] which shed light on the organisational side of the issue. We believe that analysing the various regulations and standards in the field will make it possible to complement to their observations with information on the intentions of those behind the legislative initiatives, and pharmaceutical legal cases and their resolution.

Apothecaries and apothecary pricing schedules

At the start of the nineteenth century, apothecaries were involved in every aspect of medicine production, from collecting and purchasing materials to selling finished products. The Apothecary Charter of 1836 lists the rooms needed for a typical apothecary: a dispensary and an materials room for storing medicines, a preparation room and laboratory, a dry cellar, an ice room, a drying room for plants, and storage space for herbs, flowers, bark and roots.[2] Typically, apothecaries were run by medically qualified managers. The latter were helped by assistants (known as "geselles", from the German for "journeyman") and apprentices. The number of geselles and assistants depended on the apothecary's turnover and size.[3] A small apothecary could be managed by an assistant.

By the start of the nineteenth century, there were state apothecaries not only in Saint Petersburg and Moscow, but also in Kiev, Novorossiysk, Orenburg, Tiflis (Tbilisi), Irkutsk, Kherson and Pyatigorsk. The network of private apothecaries developed slowly: 16 opened in 1804 (Varadinov 1858–1863, pt. 1, p. 133), 14 in 1810 (Varadinov 1858–1863, pt. 2, bk. 1, p. 117), and 18 in 1827. By this time, there were 414 apothecaries throughout the empire. The majority were located in Saint Petersburg and Moscow, or in the regions that had joined the Russian Empire with the Partitions of Poland (Varadinov 1858–1863, pt. 3, bk. 1, p. 157). In 1831, there were 453 apothecaries in Russia, ten of which were new (Varadinov 1858–1863, pt. 3, bk. 1, p. 395).

A cholera epidemic led to major changes in state health policy, and many new apothecaries opened in Russia (27 in 1837 (Varadinov 1858–1863, pt. 3, bk. 2, p. 333), 25 in 1838 (Varadinov 1858–1863, pt. 3, bk. 2, p. 425), 25 in 1840 (Varadinov 1858–1863, pt. 3, bk. 2, p. 590), and 22 in 1844), and the total number reached 639 (Varadinov 1858–1863, pt. 3, bk. 3, p. 186). By 1850, there were 719 apothecaries in the Russian Empire (Varadinov 1858–1863, pt. 3, bk. 3, p. 570). This rapid expansion of the apothecary business was supported by the Apothecary Charter of 1836, which permitted people who were not medically qualified to own apothecaries.[4]

One of the main factors affecting Russians' access to medicines was price. Pricing policy in the apothecary business in the nineteenth century was determined by apothecary pricing schedules – reference publications specifying the Latin names

[1] The authors of these works are employees of the N.A. Semashko National Research Institute of Public Health, a federal state budget scientific institution.

[2] *Polnoe sobranie zakonov Rossiyskoy imperii* ("Complete Collection of the laws of the Russian Empire") – *PSZRI*, *Sobranie* 2 (1825–1881), Saint Petersburg, 1830–1884, vol. 11, pt. 2, no. 9808, p. 313. (In Russ.)

[3] *PSZRI*, *Sobr.* 2, vol. 11, pt. 2, no. 9808, p. 312.

[4] *PSZRI*, *Sobr.* 2, vol. 11, pt. 2, no. 9808, p. 312.

of medicinal ingredients and their prices. Officials from the ministries of finance and foreign affairs, as well as medical councils of military and civilian ministries, took part in the development of the pricing schedules in Russia.

In 1814, a law was issued dividing apothecary materials into several categories, and two catalogues were established: apothecary materials and toxic substances. All materials not included in them could be sold at drysalteries and groceries.[5] A more detailed classification of toxic substances was made in 1846: they were divided into three groups, depending on how seriously they affected the human body. In the catalogues and pricing schedules, they were designated with the first three letters of the Russian alphabet. The ukase also listed permitted options for their purchase/sale and storage.[6]

Several apothecary pricing schedules were published in Russia in the first half of the nineteenth century, in 1833,[7] 1841[8] and 1850.[9] Each was signed by the emperor; in other words, compliance with them was overseen by the state.[10] The 1833 ukase on pricing schedules stated that the Medical Council would review the prices every year in future,[11] but this did not happen. Price changes were sporadic, rather than planned. For example, additions to the 1841 pricing schedule appeared in 1847.[12]

Judging by the ukases, the prices set in the schedules were not adhered to. Inflation in the country got worse during and after wars, when materials became more expensive, and apothecaries could not survive without violating the pricing policy.[13] There were cases where Russian apothecaries established their own corporate pricing schedules, which they attempted to confirm with the Medical Council.

As the state sought to regulate relations between pharmacological business owners and their customers, a number of ukases concerned the rules for the dispensation and transportation of medicines. In 1808, the government introduced a requirement for apothecary assistants to indicate the time when a prescription was received at the apothecary and the time when the medicine was produced.[14] To prevent poisonings, medicines were provided with a signature, the colour or form of which indicated whether the medicine was for internal or external use (1837).[15] In 1850, ukases were issued introducing rules for the transportation of liquid medicines.[16] The replacement of medicines specified by a doctor in a prescription with equivalents was permitted only if the supply of the ingredients was interrupted by military action, or if catalogues of new medicines "based on proposals from various individuals" were published.[17]

An ukase issued in 1833 legalised treatment using the "homeopathic system" in Russia. In support of it, central homeopathic apothecaries were established in Saint Petersburg and Moscow. Their job was to supply all the provincial apothecaries and homeopathic doctors. Only an apothecary or pharmacist could run a homeopathic apothecary.[18] A list of homeopathic medicines and their prices was included in the apothecary pricing schedules.

Medical licensing

Before the ministerial reform of 1802, medical officials (medical workers employed by the state) and private doctors were regulated by the Medical Board, which authorised them to practice medicine. In the eighteenth century, this requirement could be avoided. A change in the administrative structure, allied to the increase in the population and the number of university-trained medical workers, allowed Alexander I's government to strengthen control over medical and apothecary activities. According to the founder of medical police, Johann Peter Frank, counterfeit medicines and charlatans were a threat to people's lives, and, therefore, to the interests of the state as well.

5 *PSZRI*, *Sobr.* 1 (1649–1825), Saint Petersburg, 1830, vol. 32, no. 25664, pp. 897–902.
6 *PSZRI*, *Sobr.* 2, vol. 21, pt. 2, no. 20620, p. 411.
7 *PSZRI*, *Sobr.* 2, vol. 13, pt. 1, no. 6465, pp. 544–545.
8 *PSZRI*, *Sobr.* 2, vol. 16, pt. 1, no. 14399, p. 213.
9 *PSZRI*, *Sobr.* 2, vol. 25, pt. 1, no. 24336, pp. 640–642.
10 *PSZRI*, *Sobr.* 2, vol. 10, pt. 2, no. 8442, p. 1000.
11 *PSZRI*, *Sobr.* 2, vol. 13, pt. 1, no. 6465, pp. 544–545.
12 *PSZRI*, *Sobr.* 2, vol. 22, pt. 1, no. 21140, pp. 346–347.
13 *PSZRI*, *Sobr.* 1, vol. 30, no. 23019, p. 225.
14 *PSZRI*, *Sobr.* 2, vol. 11, pt. 2, no. 9763, p. 4.
15 *PSZRI*, *Sobr.* 2, vol. 12, pt. 1, no. 10171, p. 256.
16 *PSZRI*, *Sobr.* 2, vol. 25, pt. 1, no. 23888, p. 95.
17 Russian State Military Historical Archives (RGVIA). F. 859. Op. 4. D. 2. L. 149.
18 *PSZRI*, *Sobr.* 2, vol. 8, pt. 1, no. 6447, pp. 531–532.

In 1807, the Ministry of Internal Affairs (MIA) introduced a requirement for all doctors in the Russian Empire to submit information on their qualifications to the authorities. Apothecaries were required to provide the local authorities with details of the doctors issuing their prescriptions. This measure revealed that, for example, of 580 prescriptions received in one week by Saint Petersburg apothecaries, no more than 100 were issued by licensed medical workers. More than 200 names were unknown to the MIA's Medical Council. The situation was similar in Moscow and the provincial cities.

To prevent physicians and doctors not recognised by the Russian state ("charlatans" in the language of the time) from practising, minister Alexander Kurakin, suggested publishing an annual *Alphabet*, or calendar (later known as the *Russian Medical List*) with the names and titles of the doctors who had passed the state examination and were authorised to practice medicine. All apothecaries had to acquire such publications and to check their prescriptions against them. From this point, apothecaries could dispense medicines only on the basis of prescriptions from licensed doctors. If the name on the prescription was not on the Medical List, the apothecary had to notify the medical authorities of this.[19]

An ukase issued in 1821 indicates that the lists did not produce positive results immediately. For a long time, it was not possible to create a unified register of all medical workers.[20] Information was submitted late, or not at all. Later, however, thanks to the controls put in place over the sector, all doctors not licensed by the state were put out of business.

The supply of medicines to the army[21]

In the first half of the nineteenth century, the army was provided with medicines supplied to state apothecaries or apothecary shops at the request of army doctors.[22] Apothecary shops were not permitted to engage in the production and retail sale of medicines. The penalties for doing so were 25 rubles for a first offence, 50 rubles for a second, and prohibition from trading for a third. An apothecary shop was a trading establishment engaged in the wholesale sale of "raw and processed" medical and perfumery products.

The supplies were provided on the basis of a regimental catalogue, which was updated from time to time.[23] In 1841, ten catalogues were produced for the army. They took effect in Saint Petersburg from 1842, and in other parts of the empire from 1843.[24] Doctors had to use them in treating illnesses. Deviation from them was permitted only in extraordinary circumstances, such as "fever in the North Caucasus Line".[25] Army ranks in the Caucasus were allocated an annual supply of materials, while in 1843 permission was granted for certain line battalions (the 3rd, 4th, 9th, 10th and 11th) to be provided with a two-year supply of medicines.[26]

In 1806, Alexander I granted Physician-in-Ordinary Sir James Wylie practically unlimited authority in military medicine. The position of Inspector General for the Army Board of Health was created for him (Vishlenkova 2017). Wylie took advantage of this to create an efficient system for supplying the army with medicines while the war with Napoleonic France was ongoing. This consisted of temporary reserve apothecary shops, the main travelling apothecaries, frontline apothecaries and auxiliary apothecary establishments. To manage the new supply system, the position of Inspector of the Apothecary Board was created, with the incumbent having a wide range of powers. The inspector was appointed by the Minister of Police (which oversaw medical issues) and confirmed by the emperor. During the war against the Napoleon and until 1816, the position was filled by Ivan Lange (Kutuzov 1950–1956, vol. 1, p. 30). His work was governed by a document on the emergency supply system,[27] which, on dozens of pages, described the structure and procedures of the relationship between civilian and military

[19] *PSZRI*, *Sobr.* 1, vol. 29, no. 22418, p. 971.

[20] *PSZRI*, *Sobr.* 1, vol. 37, no. 28532, p. 569.

[21] This article focuses on the supply of medicines to the army. The supply of medicines to the navy is a topic for a separate study. For more on this, see (Afanasieva 2011).

[22] *PSZRI*, *Sobr.* 2, vol. 4, no. 3010, p. 513.

[23] *PSZRI*, *Sobr.* 2, vol. 8, pt. 1, no. 5884, p. 6.

[24] RGVIA. F. 859. Op. 4. D. 1. L. 140.

[25] RGVIA. F. 859. Op. 4. D. 2. L. 126.

[26] RGVIA. F. 859. Op. 4. D. 2. L. 141.

[27] *PSZRI. Sobr.* 1, vol. 33, no. 26457, p. 1050.

medicine, the work of apothecaries and their record-keeping.[28]

Established under Nicholas I in 1838, the "apothecary board inspectorates" were responsible for supplies of medicine to the whole population (civilian and military). In 1859, however, the Department of State Medical Procurement, and, consequently, the apothecary board inspectorates, were placed under the control of the Ministry of War,[29] with the MIA now responsible only for supplies to the civilian population.

Subsidies for the public

One of the features of apothecary policy in nineteenth-century Russia was the provision of discounted access to medicines for certain sections of the population. The state paid for medicines for the families of military field and company officers.[30] Later, the discounts were extended to the disabled. In 1815, the Committee of Ministers issued a regulation allowing the wounded and crippled, and field and company officers, to receive medicines free of charge through state apothecaries. Medicines unavailable from such apothecaries could be obtained from private ones or welfare boards. However, officers who were still in service and drew a salary had to pay for their medicines and treatment themselves. Subsidised medicine (a prototype of social insurance) was provided for the wounded who had taken part in "the last war" (i.e. the Napoleonic War of 1812).[31] Such assistance was also provided to the families of military field and company officers.[32]

After the war of 1812, the threat of the exponential spread of typhus prompted the Committee of Ministers to make medicines free for serfs, whether owned by the state or nobles.[33] In 1825, the outbreak of a cholera epidemic prompted the Committee of Ministers to make medicine free for residents of southern governorates as well.[34] In 1831, a central commission was established to fight this infectious disease.[35] In 1819, legislation was passed providing medicine for military "working" battalions. The budget for medicines was 112 rubles 50 kopeks per battalion, half the norm for the other troops.[36]

During Nicholas I's reign, state subsidies for medicines were a common practice. We have found twelve ukases on the "free dispensation of medicines" to members of the armed forces. From 1831, apothecary apprentices and other apothecary workers also received free medicine. They were sent to army and navy hospitals for treatment.[37] Wounded generals, field and company officers gained this right in 1832,[38] and members of the quarantine guard in 1845.[39]

The quarantine charters of 1818[40] and 1841[41] regulated payment for medicines for those isolated in quarantine facilities. They could obtain them from a quarantine apothecary at their own expense at the price set in the pricing schedule, and only "the poor ... whose medicines, like all their maintenance, are provided by their quarantine facility", were exempt.[42]

Because the Russian Empire did yet not have a properly functioning healthcare system at the time, healthcare administration was a manual exercise. For example, some villages were sent medicines from a state apothecary, because the residents were suffering from rabid wolves.[43]

Social medicine and occupational medicine emerged in the first half of the nineteenth century. Employees at state-owned factories in the Urals and Siberia could receive free medical and pharmacological aid (Fedotov and Mendrina 1975, p. 88). Another subsidised social class were prisoners. From 1847, the state paid for their medicines at a rate of 3 kopeks per person per day, irrespective of their location.[44]

In 1829, under the supervision of Physician-in-Ordinary Johann Georg von Ruehl, a pharmaco-

[28] *PSZRI*, *Sobr.* 1, vol. 32, no. 25063, pp. 246–256.
[29] *PSZRI*, *Sobr.* 2, vol. 34, pt. 1, no. 34282, p. 224.
[30] *PSZRI*, *Sobr.* 1, vol. 31, no. 24110, p. 50.
[31] *PSZRI*, *Sobr.* 1, vol. 33, no. 25914, pp. 256–258.
[32] *PSZRI*, *Sobr.* 1, vol. 31, no. 24110, p. 50.
[33] *PSZRI*, *Sobr.* 1, vol. 32, no. 25700, p. 1013.
[34] *PSZRI*, *Sobr.* 1, vol. 40, no. 30355, p. 287.
[35] *PSZRI*, *Sobr.* 2, vol. 5, pt. 1, no. 3881, p. 819.
[36] *PSZRI*, *Sobr.* 1, vol. 36, no. 27829, p. 225.
[37] *PSZRI*, *Sobr.* 2, vol. 6, pt. 1, no. 4421, p. 232.
[38] *PSZRI*, *Sobr.* 2, vol. 7, no. 5397, p. 338.
[39] *PSZRI*, *Sobr.* 2, vol. 20, pt. 1, no. 18698, p. 166.
[40] *PSZRI*, *Sobr.* 1., vol. 35, no. 27490, p. 480.
[41] *PSZRI*, *Sobr.* 2, vol. 16, pt. 1, no. 14614, p. 441.
[42] *PSZRI*, *Sobr.* 1, vol. 35, no. 27490, p. 480.
[43] RGVIA. F. 859. Op. 4. D. 2. L. 111a.
[44] *PSZRI*, *Sobr.* 2, vol. 12, pt. 1, no. 10171, p. 256.

poeia for the less well-off, which became known as "the pharmacopoeia for the poor", was established at the Imperial Philanthropic Society. It kept a large number of plant-based medicines. Distilled water was replaced by river or well water; cinchona bark by willow. Doctors were not permitted to prescribe medicines not provided by the pharmacopoeia (Egorysheva and Goncharova 2016).

In 1851, officials of the Ministry of State Property discussed the issue of health care for state-owned serfs. Their debates resulted in an ambiguous recommendation: because of the "simplicity of serfs' diseases", medical workers were to prescribe them expensive apothecary medicines as infrequently as possible. Instead, a paramedic could recommend sick serfs medicines from a drysaltery and wild medicinal herbs.[45]

From 1835, the public could obtain medicine from apothecaries at private hospitals as well as private and state apothecaries.[46]

Production of apothecary materials

In 1804, the procedure for supplying state apothecaries with medicines changed, becoming less centralised. The Caucasus, Smolensk, Tobolsk, Lubny, Karasubazar (Bilohirsk), Irkutsk, Zhytomyr and Orenburg apothecaries could now choose their suppliers themselves, but were recommended to give preference to local merchants and owners of apothecary gardens. The state apothecaries obtained rare and imported materials from Saint Petersburg,[47] and medicinal plants from their nearest apothecary gardens. Judging by the ukases, running them in Russia was a risky business: their owners were often financially ruined. Because of this, almost all such gardens were associated with state institutions, but even these could be shut down. For example, the Moscow Medical Garden declared liability in 1821.[48] Private apothecaries purchased materials for medicines from apothecary shops. To these, they added plants from local gardens, minerals from local developers, and imported purchases.

An MIA circular from 1809 instructed civil governors to monitor prices for apothecary materials and submit reports to the ministry on this in August, while at the start of spring, the leader of the governorate was to submit suggestions on how to organise the collection of medicinal plants.[49] From 1831, such reports and suggestions were to be submitted every month.[50] In 1841, the Department of State Medical Procurement sent every apothecary examples of apothecary materials and equipment for quality control purposes.[51]

The procurement of apothecary materials in the Russian Empire remained a pressing issue throughout the nineteenth century.[52] Having become Minister of Internal Affairs in 1803, Viktor Kochubey spoke of saving the state 20,000 rubles through the collection of local plants.[53] His second argument for expanding plant collection was the need to be independent of European suppliers.

Alexander I's government encouraged people to create apothecary gardens.[54] At the start of the nineteenth century, there were botanical gardens in Moscow, Saint Petersburg, Lubny, Smolensk and Tobolsk (Varadinov 1858–1863, pt. 2, bk. 1, p. 176). The government also plans to create such gardens in Kronstadt and in Kamchatka.[55] The apothecary gardens acquired new plants from each other and purchased them abroad. In 1824, plants worth 10,131 rubles 99 kopeks were bought on plants in France and plants worth 33,335 rubles 46 kopeks were bought in England.[56]

Before 1807, medical plants were collected in the Saint Petersburg and Lubny gardens and in districts of the Smolensk, Voronezh and Kharkov governorates. Pine cones, juniper berries, Iceland moss and plants in the *Artemisia* genus were obtained in Vyborg, Kiev and Zhytomyr, and oak bark in Kazan. Laxative salt, liquorice root and juice from it were produced and refined in Astrakhan.[57]

[45] *PSZRI*, *Sobr.* 2, vol. 26, pt. 2, no. 25850, p. 187.
[46] *PSZRI*, *Sobr.* 2, vol. 10, pt. 1, no. 8124, p. 416.
[47] *PSZRI*, *Sobr.* 1, vol. 28, no. 21553, p. 744.
[48] *PSZRI*, *Sobr.* 1, vol. 37, no. 28622, p. 703.
[49] RGVIA. F. 859. Op. 4. D. 1. L. 193.
[50] *R*GVIA. F. 859. Op. 4. D. 1. L. 196.
[51] RGVIA. F. 859. Op. 4. D. 1. L. 198.
[52] RGVIA. F. 859. Op. 4. D. 1. L. 184.
[53] RGVIA. F. 859. Op. 4. D. 1. L. 182.
[54] *PSZRI*, *Sobr.* 1, vol. 30, no. 23766, p. 1049.
[55] RGVIA. F. 859. Op. 4. D. 2. L. 29.
[56] RGVIA. F. 859. Op. 4. D. 2. L. 12.
[57] RGVIA. F. 859. Op. 4. D. 1. L. 183.

The ministry initiated expeditions to obtain medical minerals and salts; it was quite common for private individuals to propose them the government.[58] Such individuals included many opportunists. The Medical Council evaluated the quality of the products offered, and it was not uncommon for it to reject them.[59] Sometimes, however, such initiatives led to important discoveries. For example, experts studying the characteristics of manganese produced at state bank-owned plants in Tobolsk at a cost of 5 rubles a pood,[60] discovered that it had the same properties as imported manganese purchased for 35 rubles a pood.

By the start of the nineteenth century, the Russian Empire was producing medical salts obtained from lakes in Akkerman District.[61] In 1840, Karl Osse, the owner of a private apothecary in Astrakhan, was granted a number of concessions for the production of medical salts.[62] In 1835, a register was compiled of all the mineral sources in the empire.[63]

An important role in legislation and record-keeping in the first half of the nineteenth century was played by rhubarb,[64] used at the time as a universal laxative to treat a wide range of diseases. Three varieties of it were regarded as medicinal: *Rheum palmatum*, from China, wild Siberian, and plantation Siberian. The state had a monopoly on the purchase and sale of this raw material.[65]

Rheum palmatum was supplied from China via Kyakhta, where it was distributed among Russian buyers and exported. In 1822, Kyakhta was recognised by law as the only reliable point through which rhubarb could be supplied to the rest of the Russian Empire. The Chinese were paid in furs. Supplies amounted to 1,000 poods a year at a price of 16 rubles a pood. A ten-year contract was signed at the start of the nineteenth century.[66]

The wild rhubarb growing around Kyakhta was regarded as less effective. In 1789, an apothecary from Kyakhta called Krüger offered two specimens of the local wild rhubarb to Saint Petersburg. The Medical Board found it to be medically beneficial. Its procurement and delivery to Saint Petersburg cost 44 rubles 83 kopeks a pood. However, picking wild rhubarb there was prohibited from 1808 because of its unsuitability for treatment, although apothecaries continued to sell it for a long time, at 40 rubles a pood.

Throughout the 1810s, the government encouraged rhubarb growing in Siberia. From 1808, a gardener was assigned to each rhubarb plantation. However, attempts to cultivate the plant were unsuccessful. Only the wild plants had medicinal properties. In 1811, the decision was made to destroy Russia's rhubarb plantations.[67]

Judging by the ukases in the *Complete Collection of the Laws of the Russian Empire* and documents in the Russian State Military Historical Archives, Russia's main suppliers of apothecary materials were located in Europe, and only a small proportion of the medical raw materials reached the empire directly from China and Persia.[68]

In 1815, the Medical Council compiled a list of medicines bought by the Russian Empire abroad.[69] A proclamation issued in 1816 stated that they were to be imported through eight ports and four land customs points.[70] This was meant to ensure the safety of the products, which underwent a quarantine inspection there.[71] During Nicholas I's reign, a new list was produced, according to which private individuals and officials could acquire 16 items without restriction if they paid excise duties in the amount of 10%, while the other materials could only be acquired by apothecaries with the permission of the Department of Domestic Trade.[72] The Russian Empire imported tropical plants, camphor, alum, exotic resins, sulfur and other materials. Towards the second half of the nineteenth century, Russia started importing complex organic compounds (alkaloids) from Europe (Smirnova 2010).

58 RGVIA. F. 859. Op. 4. D. 1. L. 184–187.

59 RGVIA. F. 859. Op. 4. D. 1. L. 193.

60 The pood is an obsolete Russian unit of mass equal to 16.38 kg.

61 *PSZRI. Sobr.* 2, vol. 2, no. 926, p. 204.

62 *PSZRI. Sobr.* 2, vol. 15, pt. 1, no. 13331, pp. 212–215.

63 RGVIA. F. 879. Op. 3. D. 11. L. 55.

64 RGVIA. F. 859. Op. 4. D. 1. L. 222–223.

65 *PSZRI*, *Sobr.* 1, vol. 12, no. 9493, p. 854.

66 RGVIA. F. 859. Op. 4. D. 1. L. 220.

67 RGVIA. F. 859. Op. 4. D. 1. L. 211–214.

68 RGVIA. F. 859. Op. 4. D. 1. L. 204.

69 RGVIA. F. 859. Op. 4. D. 1. L. 203.

70 Proclamation on permission for the importation of various foreign goods, Saint Petersburg, 1816, p. 7. (In Russ.)

71 Proclamation on permission for the importation of various foreign goods, pp. 61–86.

72 *PSZRI*, *Sobr.* 2, vol. 2, no. 1211, pp. 579–580.

Alexander I's reforms brought significant changes in the relationship between the state and international merchants, which affected supplies of medical raw materials from abroad. In 1807, a proclamation was issued: *On new benefits, distinctions and advantages granted to the merchantry, and new means to expand and strengthen trading enterprises.* This recognised two types of trading houses: the partnership and the trust partnership, The establishment of joint-stock companies was permitted by order of the Crown.[73] The procedure for opening a trading house was the same for Russians and foreigners. The operations of foreign trading houses were regulated by conventions with other states, but the Russian authorities could offer companies special terms for their activities. This continued until the adoption of the Regulations on joint-stock companies in 1836.[74]

Judging by a report by Viktor Kochubey in 1821, the MIA had a shortage of qualified specialists for trading in medicines. To address this, a committee was set up, which identified a pool of reliable partners. These included the trading houses of Anderson, Glen, Mollwo, and Moberly.[75] In 1822, the British trading house Anderson & Moberly[76] was granted a 38-year monopoly on importing of medicines into Russia (Koroteeva 2006, p. 128). Mentions of this powerful company can be found in many memoirs. Matthew Anderson and Henry Moberly committed to providing the Russian authorities with authentic documents on the quality and quantity of the medicines they purchased in London, Hamburg and Amsterdam, to safeguard materials during transportation, and not to inflate their trading costs. In 1837, the company's monopoly on medicines was inherited by its legal successor, the trading house Cayley, Moberly & Co.[77]

Judging by subsequent ukases, the trading activities of the British merchants did not benefit the Russian budget. In 1838, Cayley, Moberly & Co. set a price of 9–10 rubles an untsiya[78] for salt of cinchona. As a result, Russian intermediaries, at the initiative of the Committee of Ministers, purchased salt for 6 rubles 45 kopeks an untsiya in Paris, resulting in savings of 25,000 rubles. A similar situation developed with regard to other trading agents. The Medical Council monitored prices in European apothecaries and countries through Russian consuls in European capitals.[79] Based on the data obtained, it more than once declared the agents to be supplying low-quality products to Russia.[80] Subsequently, the Department of State Medical Procurement reported on numerous occasions that its suppliers were acting in bad faith.[81]

In 1840, the state temporarily took charge of the procurement of apothecary materials abroad. MIA employees selected products within the limits of an allocated budget of 5,000 rubles a year.[82] The purchases could be made through trading houses, but on trading terms. This made it possible to reduce expenses and prices for medicines. In 1843, however, the commissioners managed to win back their rights, proving that their 38-year monopoly had been violated.[83] Not until 1859, when this privilege expired, did the Department of State Medical Procurement start purchasing medicinal products through trading again. An attempt to obtain a new monopoly was made in 1860,[84] but without success: Alexander II regarded the policy as mistaken.[85]

Conclusion

As can be seen from the above, the Russian government actively sought in the first half of the nineteenth century to create a legal framework regulating apothecary activities and the supply of medicines to the public. Acts of legislation provided various ways for people in Russia to obtain medicines: through state, private, homeopathic, ministry and quarantine apothecaries, welfare board apothecaries, and apothecaries attached to universities and various institutions. In addition, a wide range of medicinal products were sold at drysalteries and

[73] *PSZRI, Sobr.* 1, vol. 29, no. 22418, p. 971.
[74] *PSZRI*, *Sobr.* 2, vol. 11, pt. 2, no. 9763, p. 257.
[75] RGVIA. F. 859. Op. 4. D. 1. L. 203.
[76] RGVIA. F. 879. Op. 3. D. 11. L. 4–5.
[77] RGVIA. F. 879. Op. 3. D. 11. L. 6–13.
[78] The untsiya was a unit of apothecary weight in Russia, equal to 29.86 g (roughly 1 ounce).
[79] RGVIA. F. 859. Op. 4. D. 1. L. 203.
[80] RGVIA. F. 879. Op. 3. D. 11. L. 14–15.
[81] RGVIA. F. 879. Op. 3. D. 11. L. 14–15.
[82] *PSZRI*, *Sobr.* 2, vol. 23, pt. 1. no. 22189, p. 263.
[83] RGVIA. F. 859. Op. 4. D. 1. L. 18.
[84] RGVIA. F. 859. Op. 4. D. 1. L. 4–5.
[85] RGVIA. F. 859. Op. 4. D. 1. L. 24.

groceries. The country's apothecary network grew in fits and starts rather than gradually. Its development was hampered by government restrictions that introduced educational requirements for apothecary owners. A sharp increase in the number of apothecaries and relaxations in regulatory policy were observed during and immediately after epidemics and pandemics.

A new trend in state policy in the nineteenth century was the Russian government's attempt to provide chemical, mineral and plant-based medicines to broad sections of the population, whose health it was the state's responsibility to look after. The only social class not mentioned in the ukases are serfs owned by nobles; looking after their life and health was delegated to their owners. A wide range of public officials in the first half of the nineteenth century received discounted or free apothecary medicines. This represented significant social support, as the medicines prescribed by doctors were compound products. Their composition often changed, and they were very expensive for patients. In general, legal policy at the time was applied on a case-by-case basis, and the lack of a legal framework was compensated for by precedent law.

References

Afanasieva KV (2011) Sostoyanie voenno-morskoy meditsiny v tsarstvovanie Aleksandra I [State of naval medicine during the reign of Alexander I]. Nauka, tekhnologiya i obshchestvo vo vremya Pervoy mirovoy voyny: Meditsina [Science, technology and society during the First World War: Medicine]. Ed. L.A. Bulgakova. Saint-Petersburg: Nestor-Istoriya. P. 226–251. (In Russ.)

Chakrabarti P (2010) Materials and medicine: trade, conquest and therapeutics in the eighteenth century. Manchester: Manchester University Press.

Egorysheva IV, Goncharova SG (2016) K 200-letiyu Imperatorskogo Chelovekolyubivogo obshchestva (1816) [To bicentenary of the Emperor philantropic society (1816)]. Zdravookhranenie Rossiyskoy Federatsii [Health Care oft he Russian Federation, Russian journal] 60 (6): 325–328. (In Russ.)

Fedotov NP, Mendrina GI (1975) Ocherk istorii meditsiny i zdravoohraneniya Sibiri [Essay on the history of medicine and healthcare in Siberia]. Tomsk: Izdatelstvo tomskogo universiteta. 260 p. (In Russ.)

Griffin C (2017) Bureaucracy and knowledge creation: the apothecary chancery. Information and Empire: mechanisms of communication in Russia, 1600–1850. Open Book Publishers. P. 255–285.

Griffin C (2020) Disentangling commodity histories: Pauame and sassafras in the early modern global world. Journal of Global History 15 (1): 1–18.

Koroteeva NN (2006) Istoriya farmatsii (16 – nachalo 20 vv.). [History of pharmacy (16th – early 20th century)]. Kursk: Kurskiy gosudarstvenny universitet. 303 p. (In Russ.)

Kutuzov MI (1950–1956) Sbornik dokumentov i materialov [Collection of documents and materials]. Ed. L.G. Beskrovnyy. Moscow: Voennoe izdatelstvo. (In Russ.)

Poddubnyy MV, Egorysheva IV, Sherstneva EV, Blokhina NN, Goncharova SG (2014) Istoriya zdravookhraneniya dorevolyutsionnoy Rossii (konets 16–nachalo 20 v.) [The history of healthcare in pre-revolutionary Russia (late 16th–early 20th century)]. Ed. R.U. Khabriev. Moscow: GEOTAR-Media. 248 p. (In Russ.)

Renner A (2010) Russische Autokratie und Europäische Medizin. Organisierter Wissenstransfer im 18. Jahrhundert. Stuttgart: Franz Steiner Verlag. 373 s.

Smirnova EM (2010) Aptechnoe delo v Yaroslavskoy gubernii (18 – seredina 19 vv.) [Pharmaceutical activities in the Yaroslavl province (18th – the middle of 19th c.)]. Novyy istoricheskiy vestnik [The New Historical Bulletin] 3 (25): 5–15. (In Russ.)

Sherstneva EV, Egorysheva IV (2017) Lekarstvennoe obespechenie grazhdanskogo naseleniya Rossii v 17–nachale 20 veka [Medicines for the civilian population of Russia in the 17th–early 20th centuries]. Moscow: Shiko. 168 p. (In Russ.)

Stotchik AM, Zatravkin SN (2012) Prakticheskaya meditsina i ee reformirovanie v 17–19 vekakh. Soobshchenie 2. Stanovlenie klinicheskoy meditsiny [The practical medicine and its reformation in 17th–19th centuries. Report 2: the becoming of clinical medicine]. Problemy sotsialnoy gigieny, zdravookhraneniya i istorii meditsiny [Problems of Social Hygiene, Public Health and History of Medicine] 2: 58–60. (In Russ.)

Stochik AM, Zatravkin SN, Stochik AA (2013a) Vozniknovenie profilakticheskoy meditsiny v processe nauchnykh revolutsyy 17–19 vekov [The emergence of preventive medicine in the process of scientific rev-

olutions of the 17th–19th centuries]. Moscow: Shiko. 136 p. (In Russ.)

Stotchik AM, Zatravkin SN, Stotchik AA (2013b) Stanovlenie gosudarstvennoy meditsiny (vtoraya polovina 18 – pervaya polovina 19 veka). Soobshchenie 1. Vozniknovenie kontseptsii meditsinskoy politsii, organov upravleniya mediko-sanitarnym delom, vrachebno-sanitarnogo zakonodatelstva [The becoming of public medicine (second half of 18th – first half of 19th centuries). Report 1: the origin of concept of medical police, governing bodies of medical sanitary business, physician sanitary legislation]. Problemy sotsialnoy gigieny, zdravookhraneniya i istorii meditsiny [Problems of Social Hygiene, Public Health and History of Medicine] 1: 44–48. (In Russ.)

Varadinov NV (1858–1863) Istoriya Ministerstva Vnutrennikh Del [History of the Ministry of Internal Affairs]. Pt. 1–3. Saint Petersburg: Tipografiya Ministerstva Vnutrennikh Del. (In Russ.)

Vishlenkova EA (2017) Vremya khaosa ili vremya stroitelstva?: Organizatsiya rossiyskoy meditsiny v nachale 19 veka [Time of chaos or time of construction?: The organization of Russian medicine in the beginning of the 19th century]. Professiya – istorik (k yubileyu L.P. Repinoy) [Profession – a historian (to the anniversary of L.P. Repina)]. Moscow: Akvilon. P. 212–245. (In Russ.)

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