

УДК 616.7-051(092)ФіНК(045)

DOI: <http://dx.doi.org/10.15674/0030-598720223-4148-158>

Professor Yuliy Fedorovych von Finck: life pages, achievements and heritage

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Bonum initium est dimidium facti
(A good beginning is half the battle)
Winged Latin saying

State Institution Professor M. I. Sytenko Institute of Spine and Joint Pathology of the National Academy of Medical Sciences of Ukraine was founded on 8 June 2022, 115 years ago. This is a significant reason to recall the history of Kharkiv Orthopedic School through the prism of time and to realize what has been achieved by the founding specialists.

At the end of the 19th and the beginning of the 20th centuries, an outstanding orthopedist Yuliy Fedorovych von Finck worked and was respected among doctors and patients in Kharkiv, the organizer of the first orthopedic institution in the city (1895), which performed massage procedures on an outpatient basis and manufactured corsets, orthopedic devices, tutors, and shoes (Fig. 1). His life path and professional activity consisted of three periods — Baltic, Ukrainian (mainly Kharkiv) and German. It so happened that due to the emigration of Y. F. von Finck to Germany in 1919 and political obstacles, domestic specialists and historiographers did not have complete information about each of them, and especially about the German one. At the same time, the 24-year Ukrainian (Kharkiv) period of activity did not find full logical coverage in the sense of reflecting the influence of Y. F. von Finck's work on the formation of the Sytenko Orthopedic School.

Today, we have the opportunity and consider it necessary to eliminate this gap thanks to the materials of our own historiographical searches and the dissertation research of Dr. Johann Riedel from the Medical Faculty of the Technical University of Dresden [1], to whom Professor M. I. Sytenko Institute provided help with information about the Kharkiv period of Y. F. von Finck and who found a lot of information in unpublished memoirs stored in Germany in

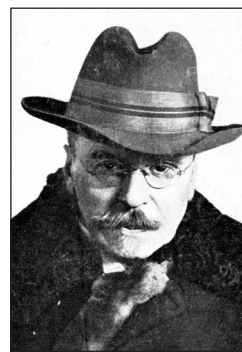


Fig. 1. Y. F. von Finck (21.06.1864 — 20.04.1951)

the family archive of the von Fincks (Doctor of Medicine Meno von Finck).

In the process of writing the article, it became obvious that in order to fully understand the motivations, content and results of Y. F. von Finck's victorious 50-year work, information about him should be provided in combination with the history of the initiation and development of treatment methods for tuberculous spondylitis.

The Fincks family belongs to the Baltic (Ostzeian) Germans. It appeared in Livonia (the modern territory of Latvia and Estonia) at the beginning of the 18th century after the resettlement from northern Germany, and already at the end of this century it became known in Livonia owing to the work of the highly qualified mahogany maker George Friedrich Finck.

Yuliy Fedorovych von Finck was born on 21 June 1864 in the city of Pernov (now Pärnu, Estonia) and was baptized in the Evangelical Lutheran Church as Julius Friedrich Finck [2]. His father Theodor Meno Finck (1834–1904) was the son of George Finck, a collegiate assessor, and Dorothea Abels, whose family included doctors.

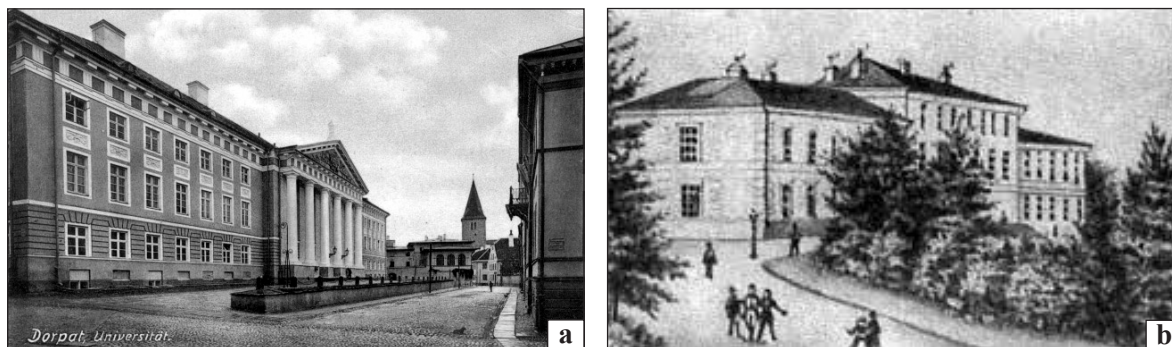


Fig. 2. Imperial University of Derpt: a) main building; b) surgical building. Photo of the end of the 19th century

Father worked as an accountant in the pension office of the Livonian County; in 1895 he was awarded the Order of Volodymyr of the 4th degree by the tsar for outstanding services, which meant the granting of hereditary nobility.

Yuliy Fedorovych's mother, Oleksandra Elizabeth (1839–1919), was the daughter of merchant Ludwig Usa and Natalia Franzen. Yuliy Finck was the third of thirteen children in the family. Seven of them contracted tuberculosis, four died in childhood. In 1883, Yuliy Finck graduated from the Pernovsk Gymnasium, in 1884 he volunteered for military service in the engineering and sapper battalion near Riga, then, after his father solved the family's financial problems, in 1885–1892 he studied at the medical faculty of the Imperial Derpt University (now the University of Tartu, Estonia) [2], which at the end of the 19th century was a world-renowned not only educational, but also research institution (Fig. 2).

Despite its administrative affiliation to Russia, the university was German-speaking from 1802 to 1893 (more than 90 % of professors were German). The dominance of the German language ensured a close scientific connection with the medical faculties of Germany, Austria and Switzerland, so the German medical school had a decisive influence on the development of Yuliy Fedorovych von Finck as a doctor. Documents about his academic performance confirm Yuliy Finck's inclination towards clinical subjects. He showed the best results in general therapy, surgery, obstetrics, women's and children's diseases.

In 1892, a cholera epidemic broke out in Russia. The country urgently needed doctors. At that time, treating cholera patients was a risky step that could cost lives. However, the doctor-graduate Y. F. von Finck made his decision regarding participation in the elimination of the epidemic without thinking. After short negotiations with the chief doctor of the Donetsk railway, Kurts, he got a job as a reserve doctor with a salary of 300 rubles and a free apartment.

His tasks included medical care for patients in cholera barracks. Taking the position without any practical medical experience, Y. F. von Finck faced a huge challenge — the fight against a disease for which there was no effective therapy. During the period of work, Yuliy Fedorovych earned recognition not only from patients and support staff, but also from the chief doctor of the Donetsk Railway, Kurts. After the cholera epidemic subsided, Kurts extended the contract with the young doctor and promised permanent work on the Donetsk railway, but Yuliy Fedorovych chose a different path. He recalled in his memoirs: «When saying goodbye to Dr. Kurts, he told me that he was extremely satisfied with my work and that when I needed money to implement my ideas, I could confidently turn to him» (translation from German — author) [3].

In 1893, responding to the request of the German colony, Y. F. Finck began practical work in the Hochstadt settlement of the Tavria province in the Crimea, where he worked for almost 2 years, fell ill with typhoid fever and, after recovering, left his post to begin studying orthopedics in Europe. Before leaving, he stayed with his brother Richard in Kharkiv, who at that time worked there as a manager of the Moscow Lipgardt plant of agricultural machines. Their sister Lilly, who worked as a teacher, also lived in Kharkiv. Yuliy Fedorovych made acquaintances with representatives of the city's German community.

From the autumn of 1894, Y. F. von Finck studied for six months at Vienna Orthopedic University Clinic under Professor Adolf Lorenz (Fig. 3, a), a specialist who together with Professor Albert Hoffa (Fig. 3, b) started orthopedics as an independent scientific-practical discipline.

Yuliy von Finck described his impression of A. Lorenz as follows: «In addition to his solid appearance, he was distinguished by a sharp and rich intellect».

From March 1895, for four months, Y. F. von Finck studied in Würzburg with A. Hoffa, and then went to Berlin, where he spent two weeks getting acquainted

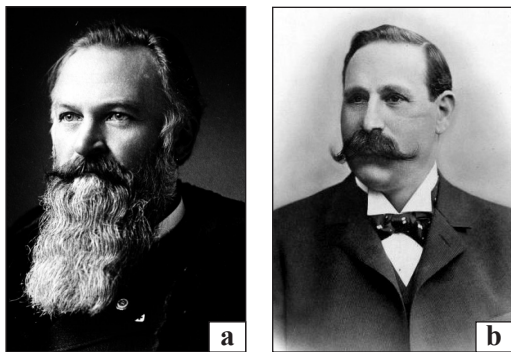


Fig. 3. Scientists who played a key role in the formation of Y. F. von Finck's career: a) A. Lorenz (1854–1946); b) A. Hoffa (1859–1907)

with the work of other famous orthopedists. In his professional career, he followed the advice of A. Lorenz and A. Hoffa, implemented the scientific developments of great scientists to his practice in Kharkiv.

Changes took place in the personal life of Yuliy von Finck during this period. He returned home and on 14 October 1895, married Elfrida Kablitz, the sister of his fellow student Oleksandr Kablitz, who came from the family of the Livonian landowner Karl Kablitz. Having received a loan from Dr. Kurts, J. F. von Finck decided to settle and work in Kharkiv. Four of his children (daughter Hedvig and three sons George, Theodor, Erich) were born in Kharkiv, where the whole family lived until 1919.

The integration of the Y. F. von Finck family into the social and cultural life of the city took place through the German community, which included people from various walks of life, including graduates of the University of Derpt, Professor of astronomy L. O. Struve, Professor L. A. Casso — future Minister of Education of Russia, Professor of Medicine V. F. Grube. On the recommendation of M. P. Trinklér, Doctor of Medicine, in 1896, Yuliy Fedorovich became a member of the Kharkiv Medical Society [4], and later of the Board of Trustees of the Girls' Gymnasium at the Evangelical Lutheran Church [5].

During the period of his life in Kharkiv, Y. F. von Finck, in addition to success in his professional career, also suffered severe blows of fate — the death of his father in 1904 and brother Richard in 1905, as well as children's illnesses. In 1910, as a result of an injury, he lost his left eye and was forced to leave medical practice for a year.

In order to assess the role of Yuliy Fedorovich von Finck in the development of world orthopedics, namely the treatment of tuberculous spondylitis, we note that the named disease due to damage to the vertebral bodies was one of the most serious and life-



Fig. 4. P. Pott (1714–1788)

threatening. For centuries, bone tuberculosis was considered incurable.

At the beginning of the 20th century, the mortality rate from tuberculous spondylitis ranged from 30 to 50 %. The clinical course of tuberculosis of the spine was characterized by numerous complications, mainly paralysis, abscesses, formation of fistulas and humps. Healing almost always took place with the formation of a hump, especially in children. The connection between spinal tuberculosis and hump formation was first described in 1779 by the English doctor Percival Pott (Fig. 4). In the middle of the 19th century, a detailed patho-anatomical and histological study of bone tuberculosis began. Odilon Lannelong (1840–1911) and Victor Menard (1854–1934) as a result of their research confirmed the connection between the formation of a bulging spine and tuberculous spondylitis and introduced new ideas about its origin and histological changes [6].

The end of the 19th century was marked by the discovery of the causative agent of tuberculosis by Robert Koch (Fig. 5, a) in 1882. The obtained new knowledge about the etiology and pathogenesis of the disease focused the attention of doctors on the search for new therapeutic approaches to combating the pathogen. The introduction of radiography in the diagnosis of bone tuberculosis made it possible to detect it in the early stages, when there was no pronounced destruction of the vertebral bodies. Unfortunately, tuberculin, developed by R. Koch, was not recognized as a medicine, and the anti-tuberculosis vaccine, invented in 1921, also did not bring success in the treatment of this disease. Only in 1943, after the discovery of streptomycin by Albert Schatz (Fig. 5, b), targeted therapy of tuberculosis became possible.

As for further professional development of Y. F. von Finck, at the end of 1895, on the advice of A. Hoffa, he opened the first private orthopedic institution in Kharkiv. Then he recalled: «I followed his advice and opened my own workshop. The mechanic

I hired, Richard Bartels, turned out to be a very experienced and knowledgeable person, and he faithfully stayed with me until the end of my internship in Kharkiv. With his help, I set up the workshop with all the equipment and tools so we could get started. My practice developed well, better than I had hoped. In the third year of practice, I was able to live comfortably on my earnings and afford some additional services» [3].

Since the outpatient treatment of patients was often insufficient, Yuliy Fedorovich, after receiving the permission of the Ministry of Internal Affairs, in 1899 opened in Kharkiv on 12 Voznesenska Street (now 12 Feuerbach Street) a private orthopedic hospital with 6 beds, the number of which doubled in 1902 [7]. At that time, it was one of the most modern private orthopedic hospitals with an inpatient facility not only in Kharkiv, but also in the entire empire. The hospital had a ward with 12 beds, an outpatient clinic, an orthopedic workshop, X-ray, physiotherapy and massage rooms. According to Y. von Finck's recollections, already in 1896 he was the first in Kharkiv to purchase an X-ray unit. This greatly facilitated the diagnosis of orthopedic disorders and the evaluation of treatment results.

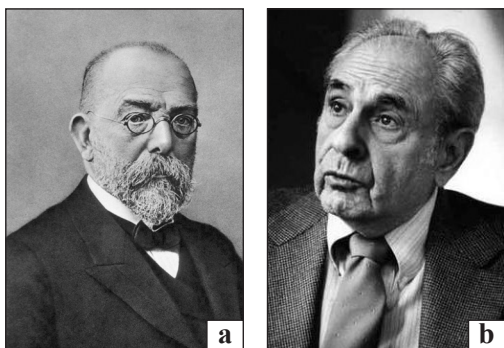


Fig. 5. Researchers-inventors: a) R. Koch (1843–1910), discovered the causative agent of tuberculosis; b) A. Shatz (1920–2005), discovered streptomycin



Fig. 6. The old and new buildings of the Y. F. von Finck clinic in Kharkiv (early 20th century postcard)

In 1908–1909, Y. F. von Finck added a three-story building to his one-story building, where the outpatient clinic was located (Fig. 6). These buildings have survived to this day and belong to the Road Clinical Hospital No. 2 of the Southern Railway.

Treatment of tuberculous spondylitis becomes the leading activity of Y. F. von Finck's Clinic. In the monograph «Tuberculosis of the spine and its treatment» (1940), he writes that in the period from 1902 to 1912, 711 patients with tuberculosis of the spine were treated in the hospital [8].

The problem of treatment of tuberculous spondylitis was dealt with by many leading orthopedists of the time, but it was difficult and remained unsolved. The general treatment of this disease was carried out in accordance with centuries-old ideas, which were recommended even by Vedic doctors. It included outdoor treatment, hygienic and dietary measures. At the end of the 19th century tuberculosis therapy was supplemented with heliotherapy, which at the time was described as a «modern and promising method». Its founder and main representative was the Swiss orthopedist Auguste Rollier (Fig. 7).

In contrast to the general, local treatment of tuberculous spondylitis at the turn of the century received further development owing to the fundamental works of Berthold Ernest Gaudre, Russell Aubrey Gibbs, Jean-Francois Kahlo, Fritz Lange, Frederic Houdlet Albee (Fig. 8), Adolphe Laurens (Fig. 3). Attempts have been made to prevent hump formation or to minimize it with the help of local conservative measures, which were based on solving two main tasks — unloading the affected spine and its fixation [5].

At the beginning of the 20th century, three methods of local conservative treatment were approved: a) «pure» stretching; b) stretching and plaster bandages; c) plaster bandages. However, the unsatisfactory results of their use due to extremely long periods of time led to the further search for alternative approaches [9].

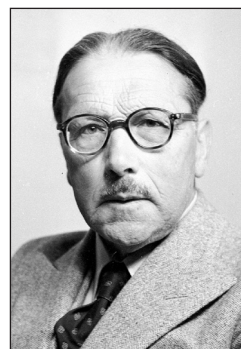


Fig. 7. O. Rollier (1874–1954)

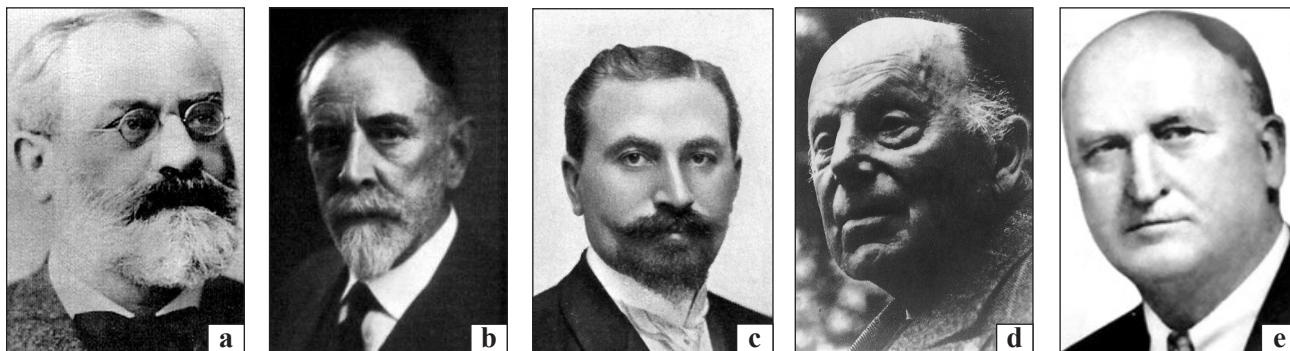


Fig. 8. Researchers of tuberculous spondylitis: a) B. Gadra (1842–1903); b) R. Gibbs (1884–1932); c) Zh.-F. Kahlo (1861–1944); d) F. Lange (1864–1952); e) F. Alby (1876–1945)

The idea of forced conservative hump correction was not abandoned until the end of the 19th century. In 1897, the French orthopedist Jean-Francois Kahlo applied his method of humpback treatment, which consisted in the forced rupture under anesthesia of the fused vertebrae, but due to the high lethality, the method did not spread and even the author refused to use it [10].

In addition to conservative, surgical treatment of tuberculous spondylitis began to be used owing to advances in anesthesiology and antiseptics, which contributed to the development of spine surgery in general. In those days, two approaches were used to treat tuberculous spondylitis: complete removal of the tuberculous focus and stabilization of the spine. Among the supporters of active surgical treatment of bone tuberculosis was Fritz König (Fig. 9). Radical operations by extirpation of the tuberculosis focus did not find supporters at the beginning of the 20th century due to high operative mortality or secondary infection [11].

In 1891, Berthold Ernest Gadra first tried to stabilize the spine surgically in the case of tuberculous spondylitis, using a silver wire cerclage [12]. This marked the beginning of a new era in spine surgery. In 1902, Fritz Lange used a metal wire to stabilize the spine, which he placed under the back muscles near the spinous processes and fixed to the spine with silk sutures [13].

In 1911, F. H. Albee published the first results of surgical stabilization of the spine under conditions of tuberculous spondylitis. The essence of the operation was the introduction of a bone plate (autograft) between the split spinous processes [14]. After analyzing the results of various spine stiffening operations in the 1920s and 1930s, initial enthusiasm was followed by great disappointment. It appeared that the surgeries could not safely prevent the hump

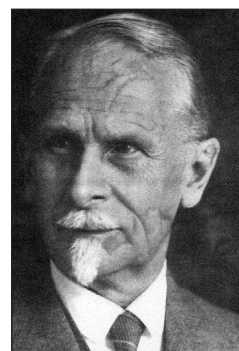


Fig. 9. F. König (1866–1952)

from forming. The reason was the early loosening of the bone autograft.

Yuliy Fedorovich von Finck believed that in the treatment of tuberculous spondylitis, it is necessary to solve two main problems, namely the actual tuberculosis disease and the hump. He wrote: «... correcting the deformity without eliminating the underlying disease that caused it is absurd. Because even when the hump is removed, it will always reappear as long as the tuberculosis infection remains active and the destruction of the vertebrae continues to spread» [8].

As can be seen, large scale effective means of combating the causative agent of tuberculosis did not exist at that time. The analysis of world and personal experience allowed Y. F. von Finck to form the basis of the idea of mobilizing the body's own forces to fight against the causative agent of tuberculosis and to develop a method of its practical application in patients with tuberculous spondylitis. He developed the theory of «general muscle rest», involving the hypothesis that a tuberculosis patient can recover if the forces necessary for healing are not spent on muscle work [15]. He firmly believed that the principle of «general muscle rest» is the solution to the problem of treating spinal tuberculosis and emphasized that not only the diseased area should «rest», but also the whole body. A patient with bone

tuberculosis should be treated in the supine position. To do this, Yuliy Fedorovich modified Lorenz's plaster bed, making it for patients from head to toe.

At the same time, Y. F. von Finck analyzed the mechanisms of hump formation and substantiated his understanding based on anatomy and topography: «If we consider the forces that led to the formation of the hump, in addition to the destruction of the vertebrae, it will be the load of the body resting on them and the intra-abdominal pressure». In order to prevent pressure on the diseased vertebrae, Yuliy Fedorovich recommended placing the patient in a horizontal position on a plaster bed: «At the same time, we remove the destructive pressure from above, since the back is well and firmly supported, this also eliminates the intra-abdominal pressure from the diseased spine, because now it will appear ahead» [16].

The method of Y. F. von Finck is based on the idea that the curvature of the spine as a result of the destruction of the vertebrae is a consequence of the lever, so the elimination of the lever should be the first task, and prevention of bending the second one. Both are achieved due to the horizontal position of the body. To correct the hump, Yuliy Fedorovich used the same forces that caused the spinal deformity, i.e. the trunk load, but in the opposite direction. This was achieved by means of cotton bands glued criss-cross to the top of the hump. The most important thing to eliminate spinal deformity, according to the author, was the pressure from the cotton cross, which should be increased carefully and gradually, layer by layer, and haste led to pain and bedsores. When the cotton roller reached a height of 4–5 cm, the next plastering was performed according to the sample of the obtained form of the spine and the same process was repeated [17].

The first successful attempts to correct Pott's kyphosis were made by Y. F. von Finck in Kharkiv. Owing to the successful results of applying his own method of Pott's kyphosis correction, he became known throughout the Russian Empire. In Kharkiv, patients started coming not only from all over the country, but also from Turkey and Bulgaria to the doctor who «knows how to heal a hunchback child».

The first international presentation of the method took place in 1906 at the 5th Congress of the German Society of Orthopedic Surgery, where Y. F. von Finck gave a speech «Gradual correction of Pott's hump in the supine position» and spoke about his experience in treating 75 patients with tuberculous spondylitis in the period from 1899 to 1906 [16].

In 1933, Y. F. von Finck reported on the final results of the treatment of spinal tuberculosis at

the 28th Congress of the German Orthopedic Society in Leipzig. Demonstrating cured children, radiographic images in two projections, he gave convincing arguments in favor of the effectiveness of his method. Congress President Hermann Hocht (Fig. 10) in his speech expressed sincere thanks to the author: «In response to Mr. von Finck's speech and demonstration, one should only wish his patients success in all respects. The results he showed us surpass the best individual results I have ever seen in my life» [18].

Y. F. von Finck saw a special role in successful treatment in the immobilization of the spine after the patient stood up. He considered the use of the then popular Hessing corset for the treatment of tuberculous spondylitis to be impractical and erroneous, so he developed his own design. In order to achieve immobilization of the spine, the cast-leather corset was made of two parts — for the trunk and chest and neck, which were connected with bolts after putting on (Fig. 11). At the same time, the author recommended keeping the corrected section of the spine in the corset under pressure with a layer of cotton [8].

In conclusion, it should be noted that Y. F. von Finck at the beginning of the 20th century developed a new effective method of Pott hump correction for tuberculous spondylitis. The main disadvantages of the method include a long treatment time and the associated high economic costs.

The successful 24-year activity of Y. F. von Finck in Kharkiv was interrupted by the Russian revolution. In February 1919, he was forced to emigrate to Germany, where at the age of 55 he began to rebuild his career. In 1921, he received an academic degree of Doctor of Medicine at Leipzig University based on the results of his studies in Kharkiv. Despite the success in the treatment of tuberculous spondylitis, he was able to return to his profession only in 1926, due to the bureaucratic requirements (citizenship and examination) for obtaining a license to practice medicine in Germany and the economic crisis in the country

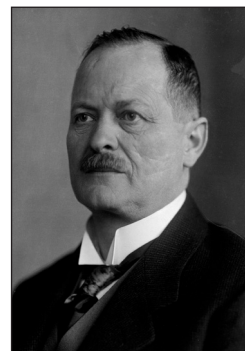


Fig. 10. H. Hocht (1869–1938)

during 1919–1924. Yuliy Fedorovich was forced to make efforts to prove the nobility of the family when obtaining citizenship. Instead of the exam, he was credited with the defense of his doctoral dissertation. To overcome financial difficulties, Y. F. von Finck spent even more time and effort, and was even forced to take a bank loan for real estate [2], but he did not give up his professional ideas. He was convinced that tuberculous spondylitis can be successfully treated only in specialized institutions.

He had the idea of founding a specialized sanatorium back in Kharkiv, but the First World War and revolutionary events destroyed the economic prerequisites for this. In 1926, under the patronage of the famous orthopedist Konrad Bizalskyi (Fig. 12), Yuliy Fedorovich implemented his idea in Germany — he opened the «German Institute of Spinal Tuberculosis» (Fig. 13, a) in the city of Kloche near Dresden, which he headed until his death in 1951

The institute was subordinated to the German Red Cross. At the time of its establishment, it had 50 beds, 80 during the Second World War, and 100 in the post-war period. It was well equipped for its time; there were 14 wards in its premises. Isolators for patients with acute infectious diseases were located in the basement with a separate entrance.

Sanitary facilities included two bathrooms with a hot water supply system and 5 toilets. Children were bathed lying down once a week. At night, the patients were in the wards and during the day in the halls in the open air (Fig. 13, b). Even in winter, children were wrapped warmly and taken to the halls on special mobile benches designed by Y. F. von Finck. He attached great importance to open-air treatment, in addition to specially trained medical staff; there were teachers, educators, and support staff. Y. F. von Finck made great efforts to ensure that the children received a basic education while they were in the institution. Employees of the institute tried to teach children handicraft skills that may be needed in later life.

Under the leadership of Y. F. von Finck, the institute gained world recognition and its method saved thousands of children from mutilation. In addition to successful practical work, he also published scientific works. According to Johann Riedel, Y. F. von Finck wrote two monographs — «A contribution to the pathological anatomy and clinic of *spina bifida occulta* based on the results of autopsy of newborn corpses» (dissertation work, 1921) and «Tuberculosis of the spine and its treatment» (1940). In compendia and scientific journals, he published 31 articles, most of which related to the problems of tuberculous spondylitis, the rest to clubfoot [19], *spina bifida occulta*

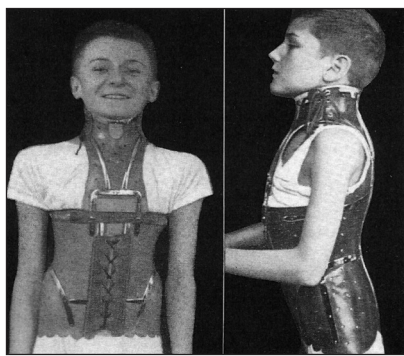


Fig. 11. Corset designed by Y. F. von Finck



Fig. 12. K. Bizalskyi (1968–1930)



Fig. 13. «German Spinal Tuberculosis Institute» by Y. F. von Finck in the city of Kloche near Dresden: a) general view; b) premises of the hall in the open air

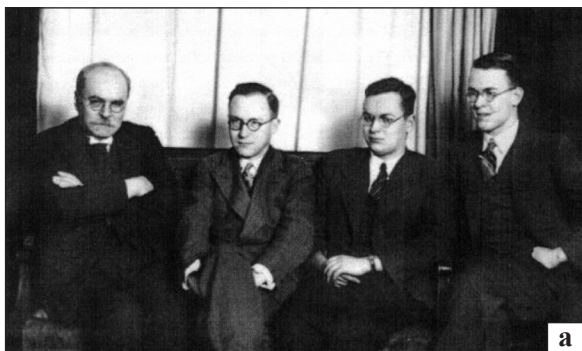


Fig. 14. a) Y. F. von Finck and his sons George, Theodore, Erich; b) a portrait of Y. F. von Finck, painted by T. Sintenis in 1949.



Fig. 15. M. G. Zelenin (1873–1931) (a); M. I. Sytenko (1885–1940) (b)

[20], plaster technique [21, 22], the use of cleol [23], physical therapy [24].

As a sign of recognition of achievements in the treatment of tuberculous spondylitis, Y. F. von Finck was awarded the Order of Merit of the Red Cross in 1934. In the same year, he was unanimously elected an honorary member of the German Orthopedic Society; in 1942 he was awarded the title of Professor. In 1950, the president of the German Democratic Republic, Wilhelm Peak, awarded Y. F. von Finck with the honorary title of «Honored People's Doctor». The work of his whole life and more than 50 years of responsible medical practice received well-deserved appreciation and respect (Fig. 14).

Yuliy Fedorovych von Finck died on 20 April 1951 at the age of 86 in the town of Friedewald near Dresden, he was buried at Loschwitz Cemetery. In 1954, one of the streets in Kloche was named after him.

Historically, Yuliy Fedorovych von Finck was one of the outstanding scientists, along with J. F. Kahlo, F. Albee, F. Lange, and others, who made an important contribution to the treatment of tuberculous spondylitis at a time when targeted therapy did not yet exist.

The role of Yuliy Fedorovych in the development of orthopedics in the country was evaluated by Kharkiv orthopedist professor S. L. Tregubov (1940): «Here, in the south, in Ukraine, orthopedics received a strong push for proper development thanks

to the fact that Yuliy von Finck worked here for many years; a group of his students remained, who consciously cultivate the instructions of this outstanding orthopedist» (translated by the author) [25].

The undisputed leader of this group of students was Mykhailo Gerasimovych Zelenin (Fig. 15) — a graduate of the medical faculty of Kharkiv University of 1899, a resident of the surgical clinic of Professor Leonid Dmytrovych Orlov. In 1904–1906, he worked as an assistant and studied with Y. F. von Finck, thoroughly mastering conservative methods of treating orthopedic diseases in children. In his subsequent independent work as the chief physician in the children's orthopedic outpatient clinic organized by him in 1920, M. G. Zelenin creatively improved the methods developed by Y. F. von Finck and elaborated a number of original methods of treating congenital and acquired deformations of the musculoskeletal system in children.

Prominent Kharkiv orthopedist, director of the Ukrainian State Clinical Institute of Orthopedics and Traumatology, Professor M. I. Sytenko and M. G. Zelenin were friends, and many organizational-methodical, scientific, medical-practical developments of that primitive period of time were the results of their joint creative activity. In 1929, thanks to the efforts of M. G. Zelenin, the Children's Orthopedic Clinic acquired the status of the first Children's Orthopedic Dispensary in the country. It included a hospital with 30 beds, an outpatient clinic and an orthopedic workshop. In the same year, M. I. Sytenko created the children's orthopedic prophylaxis for the first time in the USSR at his institute, which is successfully functioning to this day.

The tasks of both institutions included the organization of examination of all newborns in maternity hospitals to detect congenital orthopedic abnormalities, study of the incidence and nature of birth injuries, improvement of existing and development of new methods for early detection and treatment of congenital anomalies of development and birth injuries

of the musculoskeletal system. The system of treatment created by M. I. Sytenko and M. G. Zelenin was based on the following principles: early detection and treatment starting from the first days of a child's life or from the moment of detection of abnormalities; resolute rejection of simultaneous forced elimination of a certain deformity; gradual correction of birth defects with the help of corrective gymnastics, massage, thermal procedures and soft fixing bandages. In the basis of the treatment of deformities in older children, the principles were similar, but instead of soft bandages, the elimination of deformities was carried out with the help of careful corrective exercises and staged plaster casts, after which complex physiofunctional treatment was continued. Such children were subject to orthopedic dispensation until recovery.

As a result of this organization of work, the school of M. G. Zelenin was formed, to which Oleksandr Panteleimonyvych Kotov (Professor, Honored Scientist of Ukraine, Corresponding Member of the British Orthopedic Association) belonged (Fig. 16, a), Polina Petrivna Sova (Head of the Medical Department of M. G. Zelenin Children's Orthopedic Dispensary since 1931) (Fig. 16, b), as well as doctors A. N. Atsarkin, E. G. Raskin, A. D. Dolynska, P. I. Mednyk, and others [26].

After the death of M. G. Zelenin in 1931, as a sign of high appreciation of his merits in the development

of children's orthopaedics, the name of Dr. M. G. Zelenin was assigned to the Children's Orthopedic Dispensary (Fig. 17). Professor M. I. Sytenko provided constant advisory assistance to the dispensary at that time, and thanks to his efforts, the publication of the book on the methods of M. G. Zelenin, «Methods of conservative treatment of orthopedic diseases of childhood», written by his students, was organized in 1935 [27].

Modern Kharkiv residents remember the good deeds of Doctor M. G. Zelenin, in 2015, by the decision of the City Commission on Toponymy and Protection of the Historical and Cultural Environment, a street and an entrance named after Mykhailo Zelenin appeared in the city's Osnovyansky district.

As we can see, the work of Y. F. von Finck on the application of conservative methods of treatment of orthopedic abnormalities in children is one of the mediating factors in the formation of the Kharkiv (Sytenko) orthopedic school. This formation at the end of the 19th and the beginning of the 20th centuries took place in close cooperation with the leading scientists of Europe, the founders of orthopaedics as an independent scientific and practical discipline. The people of Kharkiv got to know the results of their work firsthand, but there was no simple imitation, sound thoughts and methods of treatment were always deeply thought out and creatively developed. Reports of own achievements were a touchstone in evaluating the decisions made. The aforementioned scientific search, initiation and development of new directions in the specialty, approaches to their solution and wide implementation in practice form the basis of the 115-year activity of the Institute named after Professor M. I. Sytenko. Let us pay tribute to the pioneers, remembering that the longest journey begins with the first step, and a good start is half the battle.

P. S. In this difficult time for our State and the world, due to the full-scale military aggression of Russia against Ukraine, Kharkiv became an impregnable fortress for the enemy, the embodiment

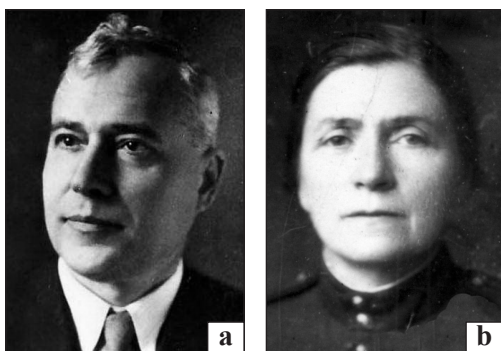


Fig. 16. O.P. Kotov (a) and P.P. Sova (b)



Fig. 17. Patient classes at Doctor M. G. Zelenin Children's Orthopedic Dispensary (photo from the 1930s)

of the courage of its defenders. The front is very close to the city, there are losses, there are wounded. Every day, Kharkiv and the region are shelled, people suffer, and there is significant destruction of buildings and infrastructure. Among the many signs of the life of the hero city is that the State Institution Professor M. I. Sytenko Institute of Spine and Joint Pathology of the National Academy of Medical Sciences of Ukraine continues to work, provides orthopedic and traumatological care to the military and civilian population, closely cooperates with the Military Medical Clinical Center of the Northern Region of the Ministry of Defense of Ukraine, continues to publish the professional journal «Orthopaedics, Traumatology and Prosthetics» reflecting the current today's topics.

Conflict of interest. The authors declare no conflict of interest.

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The article has been sent to the editors 12.10.2022

PROFESSOR YULIY FEDOROVYCH VON FINCK: LIFE PAGES, ACHIEVEMENTS AND HERITAGE

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