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The activities of scientist agronomist S. M. Bogoyavlenskyy towards the establishment and development of the Kyiv Station for testing agricultural machines and tools (1901–1916)

Abstract. *The aim of the article is to reconstruct the course of events and facts of scientist agronomist Serhiy Mykolayovych Bogoyavlenskyy's activity for the benefit of the development of agricultural science in Ukrainian lands, especially regarding the establishment and development of the Kyiv station for testing agricultural machines and tools during 1914–1916 based on the "personal files" found in the archives. Scientific novelty of the article lies in the fact that it examines information about one of the closest assistants of Professor K. G. Schindler in such a difficult, from an organizational point of view, matter of expanding the activities of the mentioned station. The "personal files" of the agronomist S. M. Bogoyavlenskyy were found and analyzed for the first time, which made it possible to outline his contribution not only to the establishment and development of the station, but also to find out his creative achievements in the field of development of agricultural mechanics and machine science. The significant creative contribution of S. M. Bogoyavlenskyy to the activities of the first station for testing agricultural machines and tools in Europe during 1901–1916, as well as his professional political contribution to the preservation of its potential in 1911–1916 as an assistant of the director – first its founder Professor K. G. Schindler, and then – Professor P. R. Sliozkin. It was established that it was S. M. Bogoyavlenskyy at the initial stage of the Station's activity who was entrusted with the task of implementing the organizational plan developed by K. G. Schindler for the introduction of field management of the institution and the construction of premises. The participation of the scientist in carrying out appropriate tests of technical tools was foreseen not only for the needs of the educational process, but also for research and production purposes throughout the territory of the European part of Tsarist Russia and, first of all, in the Ukrainian provinces. We note the role of S. M. Bogoyavlenskyy in conducting experiments in field and laboratory conditions on*



soil cultivation, sowing, plant care and harvesting, as well as in the development of appropriate methods and the manufacture of devices for testing agricultural tools. In addition, he is credited with the preparation and printing of the first issue of "News of the Testing Station for Agricultural Machines and Tools at the Kyiv Polytechnic Institute" (1907). The scientist conducted practical sessions with KPI students on researching agricultural machines. The article documents for the first time the fact that S. M. Bogoyavlenskyy headed the Station immediately after K. G. Schindler was dismissed in 1911–1912. The fate of the scientist agronomist after 1916 remains unknown.

Keywords: S. M. Bogoyavlenskyy; K. G. Schindler; P. R. Sliozkin; Station for testing agricultural machines and tools; Kyiv Polytechnic Institute

Formulation of the problem.

With this publication, I return the figure and, especially, the creative achievements of an extraordinary scientist, educator and organizer of the system for testing agricultural machines to the pantheons of the history of the current National Technical University of Ukraine "Ihor Sikorsky Kyiv Polytechnic Institute" (KPI) and the National University of Life and Environmental Sciences of Ukraine, which have their 125th anniversary from the day of creation celebrated at the state level this year. It was S. M. Bogoyavlenskyy who, first of all, practically and methodically provided an agronomic world class exclusive in the activities of the Kyiv station for testing agricultural machines and tools at the KPI, at first, during 1901–1911, and did everything possible to preserve its potential in 1912–1916. The relevance of this topic, among other things, is due to the need to highlight certain trends in the development of native agricultural machinery.

Literature review.

Researchers have proven the outstanding generative role of Professor K. G. Schindler (1869–1940) in the emergence of the first Station for testing agricultural machines and agronomic tools in Europe at the Kyiv Polytechnic Institute of Emperor Alexander II (now the National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic Institute") in 1900 (Vovk, 1927; Vasilenko, Baraban, & Koval, 1988; Vasilenko, Pogorelyj, & Vojtyuk, 1998; Derkach, 2011). The author of the article also contributed to relevant historical research, primarily through a contextual examination of the life and creative achievements of this Swiss subject (Verhunov, 2022; Verhunov, 2019). Along with this, the information about the role of the closest assistant of K. G. Schindler in such a difficult, from an organizational point of view, matter of conducting full-fledged activities of the station remains practically unexplored. As we managed to find out, according to the reports of the KPI in 1899–1911 (the time K. G. Schindler worked at this educational institution), first of all, through the printed publications "Personal staff of the Kyiv Polytechnic Institute of Emperor Alexander II", officially there are three such assistants who were full-time employees: S. M. Bogoyavlenskyy, M. M. Kagan and O. O. Khokhryakov. Available information about one of them: M. M. Kagan is systematized in general terms

(Verhunov, 2022). However, according to archival materials, the first among them was the agronomist Serhiy Mykolayovych Bogoyavlenskyy. He worked at the Kyiv Station for Testing Agricultural Machines and Tools from 1901 to 1916. In a special study dedicated to the world-renowned agricultural scientist Professor P. R. Sliozkin (1862–1927), I proved that after the resignation of Professor K. G. Schindler, it was he who headed the Kyiv station for testing agricultural machines and tools (Verhunov, 2019). During 1911–1916, as with the previous manager, S. M. Bogoyavlenskyy was appointed as his assistant, and in the event of a business trip, as the head of the Station. Nevertheless, in the modern history of the KPI, as well as the National University of Life and Environmental Sciences of Ukraine, which became the legal successor of the agricultural department of the KPI, there are no biographical information and references to the creative works of this employee (Kyivskiy politekhnichnyi i Kyivskiy silskohospodarskyi instytut, 1923; Bieliakov, Vasylenko, Vilkov, & Havrysh, 1995). They are more descriptive about his studies at the institution (Khoto ye khto, 1998) and are quite limited about his achievements in the field of agricultural mechanics and mechanical engineering. I was one of the first in the recent history of Ukraine to mention the scientific achievements of S. M. Bogoyavlenskyy in my monograph “Professor Sliozkin Petro Radionovych (1862–1927)” (Verhunov, 2007, p. 98). I did the same in a special brochure in the form of a scientific report on the occasion of the 150th anniversary of Professor K. G. Schindler regarding the participation of S. M. Bogoyavlenskyy as a member of the expert commission of competitive plow tests in 1904 (Verhunov, 2019, p. 21). A generalized biography of the scientist is also presented in the materials of the conference (Verhunov, 2023).

Currently, it was possible to find his “Personal Files” in the State Archives of Kyiv: one – as an employee of KPI, the second – among those students who did not graduate from this educational institution. The latter is actually being introduced into scientific circulation for the first time. The absence of the “Formular list” in these files indicates that it, together with other documents for the period 1901–1911, was sent to the Department of Agriculture in connection with the transfer of S. M. Bogoyavlenskyy to work in this department. Both found “Files” made it possible to reconstruct the course of events and the facts of his actions for the benefit of the development of agricultural science and education in Ukrainian lands, especially in relation to little-studied pages in the activities of the Kyiv station for testing agricultural machines and tools during 1911–1916. There is information that during 1911–1914, its work “...was largely curtailed...”, and “...from 1914 to 1925” it “...ceased completely” (Vovk, 1927).

Research methodology.

The research methodology is based on the author's use of methods of historical-scientific analysis and systematization, which made it possible to critically approach the described phenomena of the scientist's biography and show disparate biographical facts with their internal relationship. The biographical method became key in the article. In particular, we used such a form as “biography-contextualization”, which emphasizes the presence of various contexts – intellectual, educational, social – that

outlined the external contours of the life of the scientist, educator and organizer of the agricultural machines testing system S. M. Bogoyavlenskyy.

Results and discussion.

S. M. Bogoyavlenskyy was born on October 9, 1876 in the Kirillovsky District of the Novgorod Province in the family of an honorary citizen (Bogoyavlenskij Sergej Nikolaevich, 1908). According to other information, namely “Metric Certificate No. 22” dated October 28, 1876 (State Archive of the City of Kyiv. F.361, op. 60, file 34: Bogoyavlenskyy S. N. Ark. 3). He received secondary special education with a diploma of the II degree No. 173 of September 06, 1899 (State archive of the city of Kyiv. F. 361, op. 60, file 34: Bogoyavlenskyy S. N. Ark. 3) and the title of academic agronomist after graduation from Kharkiv Secondary Agricultural School (now Kharkiv Biotechnology University). Somewhere during this period, the creative destinies of S. M. Bogoyavlenskyy and K. G. Schindler intersected, when the latter worked as a laboratory assistant at the Station for Testing Agricultural Machines and Tools at the Kharkiv Institute of Technology of Emperor Alexander III (now the National Technical University “Kharkiv Polytechnic Institute”) during 1898–1899. Enrollment among the soldiers of the militia of the 2nd category of the draft of 1899 (certificate No. 4687 dated December 15, 1899), according to the pass issued by Mariupol for military service (State archive of Kyiv. F.18, op. 1-a, file 467. "Serhiy Mykolayovych Bogoyavlenskyy". Ark. 3), proves the fact that S. M. Bogoyavlenskyy worked for a short time in his specialty after graduating from school in this region.

After moving to Kyiv and opening, in accordance with the decisions of the joint meeting of the agricultural and chemical departments in 1900, and then the Council of the KPI in April 1900, the Kyiv station for testing agricultural machines and tools, and also for the needs of organizing the educational training of specialists at the agricultural and mechanical departments of the KPI, K. G. Schindler invited S. M. Bogoyavlenskyy to the post of junior laboratory assistant (outside the staff) at the department of agricultural machines and tools from August 1901 (Bogoyavlenskij Sergej Nikolaevich, 1908, p. 35). Although there is a document which shows that S. M. Bogoyavlenskyy was enrolled in this position as early as March 31, 1901 (State Archive of the city of Kyiv. F.361, op. 60, file 34: Bogoyavlenskyy S. N. Ark. 19). By the way, the position of head of the station's economy - junior laboratory technician of the “... Department of Agricultural Engineering and Mechanical Science...”, along with the position of senior laboratory technician, was provided for by the project of the organization of the Testing Station of Agricultural Machines and Tools at the Kyiv Polytechnic Institute of Emperor Alexander II on March 18, 1900, proposed by Professor K. G. Schindler and was confirmed for introduction by the Council of the KPI (1900–1901. *Izvestiya Stancii...*, 1907, p. 10).

The opening of the Station, and over time, the demand for the results of its work, should be considered as an element of a well-thought-out state policy regarding the development of agricultural machinery in the country. First of all, we are talking about the regulation of the customs policy regarding the import of this type of products from abroad. Despite the constant contradictions between farmers and machine builders, the

state, having passed three stages: the first - duty-free until 1884; the second - customs for all products from abroad during 1884–1898; the third – selective regarding certain complex agricultural machines and tools, created favorable conditions under which “agricultural construction in Russia occupied a special place among other branches of industry...” and “...did not experience any crisis and took a giant step forward in its development” (Otchet o deyatel'nosti..., 1913, p. 2). Thus, through the customs policy, a rather successful innovative project was launched with the aim of abandoning the import of agricultural machines and tools from abroad. For these needs, Professor K. G. Schindler and the Council of the KPI made a timely decision to open the Kyiv station for testing agricultural machines and tools. It was S. M. Bogoyavlenskyy at the initial stage of its activity who was entrusted with the task of implementing the organizational plan developed by K. G. Schindler for the introduction, first of all, of field management of the institution and the construction of premises. It is clear that his duties also included participation in appropriate tests of technical agricultural tools not only for the needs of the educational process, but also for research and production purposes throughout the territory of the European part of Tsarist Russia and, first of all, in the Ukrainian provinces.

Under the leadership of Professor K. G. Schindler, his assistant directly implemented the organization of four crop rotations and supervised the construction of five economic premises for needs of the experimental field, as well as a five-room laboratory on 30 acres of land 3 *versts* from the main building of the KPI in the direction of the village of Borshchagivka along the Brest-Lytovsk highway (1900–1901 gg. *Izvestiya Stancii...*, 1907, p. 4). It is clear that his role and responsibility for conducting stationary field and laboratory experiments on soil cultivation, sowing, plant care and harvesting with his direct participation was equally important. In this regard, he closely cooperates with the department of private agriculture (plant production) of KPI headed by Professor P. R. Sliozkin. Also, S. M. Bogoyavlenskyy participated in the development of appropriate methods and the manufacture of devices for testing agricultural tools and, of course, in the preparation of the corresponding “Reports”. We are talking about the results of competitions for testing agricultural tools, starting from the summer of 1902 in the “Sukhyi Yar” economy of the estate of Countess M. E. Branytska near the city of Bila Tserkva (Schindler, K. G., 1904). The materials of the plow test competition held by the Kharkiv Agricultural Society on September 10-22, 1905 in the Sharov economy of the descendants of L. E. Kenning in the Akhtyr district of the Kharkiv province, testify to the official position of S. M. Bogoyavlenskyy – assistant of the department of agricultural machines and tools of the KPI and assistant manager of the Kyiv station for testing agricultural machines and tools. Although, as evidenced by his “Personal file” in the KPI, the position had a title – manager of the economy of the Kyiv station for testing agricultural machines and tools (State archive of the city of Kyiv. F. 361, op. 60, file 34: Bogoyavlenskyy, S. N. Ark. 5). At least when submitting the necessary documents to obtain “...perpetual passport book No. 1036 dated August 5, 1905...”, issued by the Kyiv police, he indicates exactly this position (State archive of the city of Kyiv. F. 18, op 1-a, file 467. "Bogoyavlenskyy Serhiy Mykolayovych". Sheet 3).

Unfortunately, there is no copy of this passport in both archival “Files” of S. M. Bogoyavlenskyy, which, due to the information included in it, would be useful in the reconstruction of his biography. It is known that the passport system in the Russian Empire was finally formed after the adoption of the “Regulations on Types of Residence” in 1894 (although it was implemented from 1765–1795) (Olejnik, 2007, p. 21). According to this document, everyone who left their place of residence for a distance of more than 50 *versts* and for a period of more than 6 months should have passports. As a manifestation of democracy in 1903, all passporting was abolished, with the exception of those working at strategic facilities. The Russo-Japanese war proved that a huge segment of the population had no surnames at all, not to mention the presence of some kind of record for the needs of mobilization. As a result, continuous passporting was again introduced. That is why S. M. Bogoyavlenskyy was forced to submit documents for obtaining a passport again.

With the active participation of S. M. Bogoyavlenskyy, the 88-page first issue of “News of the Testing Station of Agricultural Machines and Tools at the Kyiv Polytechnic Institute” was prepared and printed, which saw the light of day in 1907. By the way, this publication was the first “...on the territory of the Russian Empire for the needs of agricultural engineering and machine science, since the ‘News of the Bureau of Agricultural Mechanics’ of the Scientific Committee of the Head of Land Management and Agriculture began to be printed in St. Petersburg only in 1909” (Erk, 2004, p. 49). Given that the “News of the Testing Station of Agricultural Machines and Tools at the Kyiv Polytechnic Institute” was prepared for printing on March 18, 1902, other assistants were not able to participate in its preparation in 1900–1901. The publication clearly states that “... since the spring of 1901... the management of the economic part was entrusted to... agronomist S. M. Bogoyavlenskyy”, and “... the performance of the duties of a professor at the department of applied mechanics (for the department of agricultural machinery) to the mechanical engineer K. G. Schindler” as well as management duties (1900–1901 gg. *Izvestiya Stancii...*, 1907, p. 4). Together with the architect of the KPI V. O. Obremskyi, S. M. Bogoyavlenskyy took care of the construction work. As for the field work, in addition to the students of the fourth year of the agricultural department, candidate of natural sciences M. O. Zhdan-Pushkin, doctor O. I. Radkevich, and veterinarians O. M. Sukhanov and O. V. Teslenko took part in their implementation. This edition announced the release of the second edition of the “News” in early 1908, which contained the Station's report for 1902 and the results of its research with disc cultivators, beet and compound fodder planters, as well as mowers, reapers and baler reapers. But a separate edition was never printed.

Due to having only secondary special education, S. M. Bogoyavlenskyy could not apply for other official preferences and, accordingly, an increase in salary. For the scientific and educational environment in which he was, it could only be achieved by receiving the title of professor, or even better, an ordinary professor with a salary of 2,700 *krb*. In addition, there were preferences regarding promotion through the ranks of the civil service, provided for by the “Petrovian rank report”. The latter allowed the professor to reach even the fifth class or a valid state adviser and, most importantly,

granting the right to “personal nobility” (Bautin & Kazarezov, 2005, p. 281). All this gave additional funds and privileges, even in relation to the same pension.

The latter became too important not only because of problems with the S. M. Bogoyavlenskyy's wife health – Iuliania Ivanivna (State archive of the city of Kyiv. F. 361, op. 60, file 34: Bogoyavlenskyy S. N. Ark. 5), and, first of all, the eldest son – Oleksandr (1901) (State archive of the city of Kyiv. F.361, op. 60, file 34: Bogoyavlenskyy S. N. Ark. 9). They became even more significant with the birth of second son Volodymyr. By the way, according to the “Metric Certificate No. 12479” issued by the Kyiv Spiritual Consistory and sent to the KPI office by letter No. 839 dated March 27, 1913, the youngest son of S. M. Bogoyavlenskyy was born on this very day (State Archive of the City of Kyiv. F .18, op.1-a, file 467. "Bogoyavlenskyy Serhiy Mykolayovych". Ark. 4). And the father's receipt confirming the receipt of the document was sent by the director of the KPI on April 2, 1913 by letter No. 1124 (State archive of the city of Kyiv. F. 18, op. 1-a, file 467. "Bohoyavlenskyy Serhiy Mykolayovych". Ark. 6). Troubles with the children's health became the basis for S. M. Bogoyavlenskyy's appeal to the director of the KPI for material assistance (Kyiv State Archive. F. 361, op.60, file 34: S. N. Bogoyavlenskyy Ark. 7). Therefore, it seems that it is no coincidence that in 1907 he enrolled into the agricultural department of the KPI. At the same time, he does everything possible to combine training with the management of the farm of the Kyiv station for testing agricultural machines and tools.

The basis for us to assert the successful operation of the Station is the constant growth of the authority of the institution, first of all, due to the steady increase in the number of students of the agricultural and mechanical department of KPI, who expressed a desire to prepare diploma theses based on the results of research and opportunities at the Station. Subsequently, S. M. Bogoyavlenskyy claimed that if in 1903 there were only 3 such students, then by 1914 there were 14, and the amount of people “working at the station in 1912” with various research problems reached 204 in total (Agricultural machine-building..., 1913). S. M. Bogoyavlenskyy took care of providing favorable opportunities for this together with the head of the Station. Although, as a result, his direct participation in various competitions for testing agricultural machinery decreased. At the same time, the number of practical classes in agricultural engineering increased. More than ten years of becoming responsible for the duties assigned to him, and also under the leadership of Professor K. G. Schindler, made S.M. Bogoyavlenskyy a recognized specialist in his field not only in the institution, but also in the country. According to “Relation” No. 24 dated Jnuary 03, 1911 of the Department of Agriculture of the Main Department of Land Management and Agriculture, he is appointed as a full-time specialist or specialist in testing agricultural machines and tools (State Archive of the City of Kyiv. F. 361, op.60, file 34: Bogoyavlenskyy SN Ark. 2). The corresponding recommendation was given by Professor K. G. Schindler, who in 1907 became a member of the Bureau of Agricultural Mechanics of the Scientific Committee of the Main Department of Land Management and Agriculture created in 1899 (Erk, 2004, p. 40–41).

A little later, namely on January 18, 1911, by the decision or “Journal of the Department of Agriculture” under No. 2545, S. M. Bogoyavlenskyy was seconded to

the disposal of the KPI “for improvement in the sciences” (State Archive of the City of Kyiv. F. 361, op. 60, file 34: Bogoyavlenskyy S. N. Ark. 3). The corresponding appeal addressed to the director of the KPI under No. 3055 was sent by the Department of Agriculture on January 21, 1911. In the same letter, its vice-director asked the director of the KPI to accept “...an oath of loyalty to the service with delivery to the Department of his sworn promise in execution of such” from S. M. Bogoyavlenskyy (State Archive of the city of Kyiv. F. 361, op. 60, file 34: Bogoyavlenskyy S. N. Ark. 2). Archpriest Prozorov conducted the relevant procedure on March 17, 1911, in the presence of the director of the KPI, state adviser, professor K. G. Dementiev (1864–1916) (Khoto ye khto, 1998, pp. 40–41). Taking what we call today the “oath of a public servant”, S. M. Bogoyavlenskyy promised before God and the Gospel to the All-Merciful Sovereign Emperor Mykola Alexandrovych and the Heir to the All-Russian Throne “...to serve faithfully and hypocritically, and to obey in everything, not sparing the stomach to the last drop of his blood...” (State Archive of the city of Kyiv. F. 361, op. 60, file 34: Bogoyavlenskyy S. N. Ark. 4). The very next day, the “Sworn Promise” with accompanying letter No. 1864 signed by the director and clerk of the Office and the Board of the KPI was sent to the Department of Agriculture. Why was there a delay in taking the oath? Most likely, it was due to the events at KPI, which led to the resignation of three deans of departments (faculties), including Professor K. G. Schindler, on February 4, 1911, due to the “Casso Case” (The resignation of professors..., 1911, p. 3). As a result, the institution lost 11 leading professors, “...who managed to make a name for themselves in science and were the best in managing the teaching business” (Kyivskyi politekhnichni i Kyivskyi silskohospodarskyi instytuty, 1923, p. III).

S. M. Bogoyavlenskyy also had to decide, since a significant number of employees resigned in addition to the professors. As we managed to establish, among the latter was M. M. Kagan - another assistant of K. G. Schindler. The desired balance was achieved in a rather unexpected way, namely with the help of dismissed professors. They also “...recommended deputies, the vacant chairs were soon occupied by new forces” (Kyivskyi politekhnichni i Kyivskyi silskohospodarskyi instytuty, 1923, p. III). There is every reason to claim that S. M. Bogoyavlenskyy's decision to stay was primarily made by Professor K. G. Schindler. Having weighed all the pros and cons, S.M. Bogoyavlenskyy decided to stay at KPI and actually headed the Station for testing agricultural machines and tools. Moreover, its new temporary head, Professor P. R. Slizokin, occupied other positions as well, namely he was the dean of the agricultural section and the head of the department of private agriculture (plant production); in the absence of the director, he headed the KPI. The appointment of P. R. Slizokin as the head of the Station for testing agricultural machines and tools in accordance with the decision of the KPI Council and the consent of the training department of the Ministry of Trade and Industry became logical. Since his predecessor was also the dean of the section and the head of the department. The experimental field at the Station was used, first of all, for the scientific and educational needs of the Department of Agriculture (Bread) headed by Professor P. R. Slizokin and the office of “Private Agriculture and Seed Science”. In addition, Petro Radionovich was a well-

known specialist in the use of agricultural machinery in agricultural production after the publication of the manual “Agronomist-trainee in the economy” (Slezkin, 1905) in 1905, had a secondary technical education after graduating from the Mechanical Department of the Moscow Real School in 1881. It should be added that since the beginning of the activity of the Station, P. R. Sliozkin cooperated with it, first of all, with the research field, for the activities of which S. M. Bogoyavlenskyy was conscientiously responsible. The new manager also made every effort to ensure that S. M. Bogoyavlenskyy continued fulfilling his duties in the future.

There is every reason to say that significant problems with the health of his children and wife, the lack of his own housing did not give S. M. Bogoyavlenskyy opportunities for other employment. Moreover, he received a fairly decent salary for his status from the Department of Agriculture, which made it difficult to freely choose a place of work. Confirmation of the constant problems with the health of family members is the “Petition” of S. M. Bogoyavlenskyy to the director of the KPI dated May 18, 1911. In it, he asks to issue an “Identity Certificate” for his wife I. I. Bogoyavlenskyy and “... two children: boys 10 and 7 years old” for “...health improvement in one of the country areas of the Kyiv province” (State archive of the city of Kyiv. F. 361, op.60, file 34: Bogoyavlenskyy S. N. Ark. 5). On the same day, it was issued for the period from “... May 18 to September 1, 1911” with the order of the assistant manager of the Station for Testing Agricultural Machines and Tools – to provide all kinds of assistance to Iuliania Ivanovna Bogoyavlenskyy to receive “... free passage and all kinds of assistance in her legal requirements” (State archive of the city of Kyiv. F. 361, op. 60, file 34: Bogoyavlenskyy S. N. Ark. 6). His signature was certified by the director of KPI. By the way, the basis for obtaining a “Certificate” for treatment was “Certificate” No. 43 dated May 08, 1911 of KPI doctor V. Polinov about the dangerous health condition of his son Oleksandr, who developed “...lung tuberculosis...” after suffering “... in December 1909... catarrhal inflammation of the lungs four times and several times bronchitis, and in April that year, suffered from diphtheria, which led to a weakening of the body...” (State archive of the city of Kyiv. F. 361, op. 60, file 34: Bogoyavlenskyy S. N. Ark. 8). As a result, the doctor recommended sending the child to the Southern coast of Crimea for the whole summer. Not having the appropriate financial capabilities, S. M. Bogoyavlenskyy, adding the opinion of the institute doctor, turned to the director of the KPI with a request “...to issue monetary assistance in the amount of 150 *krb*” (State archive of the city of Kyiv. F. 361, op. 60, file 34: Bogoyavlenskyy S. N. Ark. 9). It is clear that a family of three could not afford to go to Crimea with such funds. Nevertheless, the son's health was improved.

A difficult situation with scientific work arose at the Station after the resignation of Professor K. G. Schindler. The institution lost its generating sequence, and most importantly, its significance for practical and theoretical issues of testing agricultural machines and tools. This was confirmed at the national level during the speech of S. M. Bogoyavlenskyy at the meeting of the subsection of agricultural machine building of the Second All-Russian Congress of Workers of Mining, Metallurgy and Machine Building, which took place on April 17–24, 1913 in St. Petersburg. If from

1901 the spectrum of research into agricultural machinery was systematically expanded from balers to beet planters, harrows, disk cultivators, plows, etc. to their individual working bodies, then from 1912 a gradual contraction began. As a result, related research, which was directly carried out by S. M. Bogoyavlenskyy, on issues of agrophysics of the soil in connection with its cultivation, as well as the determination of grain losses during various methods of harvesting, also stopped (Agricultural machine-building station..., 1913, p. 285). And since the first experiments were the object of S. M. Bogoyavlenskyy's diploma project as a student of the agricultural department of KPI, the issues of its defence remained unresolved.

Confirmation was found that since 1912, the capabilities of the Kyiv Station for testing agricultural machines and tools were practically not used. Thanks to S. M. Bogoyavlenskyy, its experimental field actually fully functioned, "...divided into regular squares of 40x69 square s." (Verhunov, 2019, p. 225). It supported four crop rotations: three-four-six and eight-field, where S. M. Bogoyavlenskyy conducted certain researches together with students. But practically everything fell apart with the beginning of the First World (European) War, declared by Germany on July 19, 1914. In order to organize proper resistance to the enemy by concentrating the efforts of the regions on July 30, 1914, the All-Russian Zemstvo Union was created, which "...united the Zemstvo institutions of 41 provinces" (Verstiuk, Dziuba, & Repryntsev, 2005). Kyiv province, along with others, was in the area of action of the South-Western Front. Nevertheless, life in the rear continued and even in matters of conducting contests for testing agricultural machinery. The front needed more quantitative and, most importantly, high-quality food. Thus, on May 07, 1915, the head of the Podilsk Society of Agriculture and Agricultural Industry (PSAAI) A. S. Urbansky (1873–1950), together with secretary O. P. Rusanovsky (1883–1925), addressed the director of the KPI with letter No. 1012 with a request to send "...Professor Serhiy Mykolayovych Bogoyavlenskyy as the technical manager of the competition...", which was organized by this creative association (which traces its history since 1898) in the city of Vinnytsia on May 26-27, 1915, to test "...domestic plows" (State archives of the city of Kyiv F. 361, op. 60, file 34: Bogoyavlenskyy S. N. Ark. 11 a). It should be emphasized that, first of all, the mechanical department (created in 1902) of the PSAAI, starting from the spring of 1903 with a competition for a beet thinning machine in the village of Kordelivtsi of the Vinnytsia district systematically and annually held various events for testing agricultural machines, starting from 1899. At the same time, it repeatedly turned to the Kyiv station for testing agricultural machines and tools for various kinds of technical and methodical help. The object of the tests was mostly sugar beet culture, namely mechanisms for its thinning and digging and, especially, tools for loosening the soil (Lyubanskij, 1911, p. 16). With the beginning of the World War I, the mechanical department of the PSAAI under the leadership of E. I. Malakhovskyy joined the scientific work. Among other things, he justifies the proposal to the government to "...reduce the duty on agricultural machines and tools from America and England..." as "...a temporary measure due to the acute need for them in the market" (Kolesnyk, 2007, p. 70). Taking into account the import of a large number of plows from these countries, the Board of the society decided to investigate which domestic

analogues are not inferior to them and which factories are capable of producing them in large quantities. The mandatory condition was not to give in to the corresponding German products in terms of characteristics. First of all, we were talking about single-plow plows. The board decided to hold the competition during the regular annual meeting of PSAI members. Since representatives of all the factories of the Russian Empire were invited to it, the head of the competition commission also appointed a representative from a long-standing reliable partner – the Kyiv station for testing agricultural machines and tools.

Letter of approval No. 1185 dated May 19, 1915, in accordance with the decision of the KPI Council dated May 16, 1915 and signed by the director of the KPI Professor I. D. Zhukov (1860-1923), is received by S. M. Bogoyavlenskyy (Khoto ye khto, 1998, p. 50). Letter No.1186, similar in content, was also sent to the head of the Podilsk Society of Agriculture and Agricultural Industry (State Archive of the City of Kyiv. F.361, op.60, file 34: Bogoyavlenskyy S. N. Ark. 12). As a responsible specialist in his field, on May 22, 1915, S. M. Bogoyavlenskyy, as the assistant manager of the Kyiv station for testing agricultural machines and tools, appealed with the “Report” to the dean of the agricultural department and at the same time the station manager, Professor P. R. Sliozkin, to grant him a leave of absence “...to perform preparatory works for the competition on May 23, 24, 25–28” (State Archive of Kyiv. F. 361, op.60, file 34: Bogoyavlenskyy S. N. Ark. 13). The next day, the corresponding approval was received. However, there are reasons to assert that the competition did not take place, since the complete evacuation of enterprises began after the front approached the city of Vinnytsia due to the retreat of Russian troops from Galicia and Poland in April 1915 (Verstiuk, Dziuba, & Repryntsev, 2005).

After returning from Vinnytsia, S. M. Bogoyavlenskyy, in addition to the experimental field, almost completely immersed himself in the affairs of the Station, which was constantly experiencing various problems since the beginning of the war. They reached a threatening state in 1915 when “...a threat to Kyiv...” emerged and the KPI “...received an order to evacuate to Rostov” due to the offensive of German and Austrian troops (Kyivskyi politekhnichniy i Kyivskyi silskohospodarskyi instytut, 1923, p. IV). As a result, in the fall of 1915, the Kyiv station for testing agricultural machines and tools was handed over to the Military-Industrial Committee, while the position of the manager was reduced. That is why S. M. Bogoyavlenskyy agreed to the proposal of the Committee of the South-Western Front of the All-Russian Zemstvo Union “...to join the service in one of the departments of the committee” (State archive of the city of Kyiv. F.361, op. 60, file 34: Bogoyavlenskyy S. N. Ark. 15). After the meeting of the Station Committee on November 13, 1915, when it was finally clarified that from the spring of 1916, practical classes with students would not take place, since the horses were transferred to the Experimental Estate (mansion) “Zatyshne” in the town of Bobrovytsia of the Chernihivska province, and fodder – to the KPI Livestock Farm, S. M. Bogoyavlenskyy agrees to head the department of preservation and exploitation of horses of the All-Russian Zemsky Union. This decision was not accidental, since according to the resolution of the Military-Industrial Committee, the station estate was adapted for a gas plant for “...production of suffocating gases...”

(Grebenchuk, 1923, p. 225). Although before that, as early as 1914, relevant special experiments were conducted for almost a year, "...throwing all the assets of the station outside" (Kyivskyi politekhnichniyi i Kyivskyi silskohospodarskyi instytuty, 1923, p. 188). A document was found in the personal "File" stored in the Kyiv Regional State Archives among the archive files of employees of the Kyiv Polytechnic Institute of Emperor Alexander II of the Ministry of Trade and Industry, namely Professor P. R. Sliozkin, which once again proves the authority of S. M. Bogoyavlenskyy and respect from him (Slezkin, P., 1905). In the "Report" dated September 8, 1915, to the director of the KPI, Professor I. D. Zhukov, P. R. Sliozkin, who was leaving on a business trip to Saratov, asks to appoint "... the assistant manager S. M. Bogoyavlenskyy" in his place as the head of the farm at the Station for testing agricultural machines and tools together with the obligation to preserve "...the property of this institution, as well as the property of the experimental field..." and in connection with "... the transfer of the premises of the station for military purposes..." to allow him "... to live in my apartment until my return" (Verhunov, 2005, p. 93). The director of the institution, as well as the Board of the KPI, at their meeting on September 13, 1915, approved the request for the period from September 8 to November 05, 1915. After the management of the station passed into nominal status, which is confirmed by one of the authoritative students of Professor K. G. Schindler – the future corresponding member of the Academy of Sciences of the Ukrainian SSR L. P. Kramarenko (1881–1960), a well-known specialist in the theory and calculation of constructions of agricultural machines (Kramarenko, 2018, p. 291–192), S. M. Bogoyavlenskyy focuses his activities on "... preservation the horse population and in general on the application of all measures to eliminate in the future the so-called 'horse famine'" (State Archive of Kyiv. F.361, op. 60, file 34: Bogoyavlenskyy S. N. Ark. 15). In addition, according to the proposal of the manager of the Kyiv Treasury Chamber, which at that time was in charge of a significant amount of invested property of the city of Kyiv, he also took the position of manager of one of the investment firms. Under such circumstances, on June 7, 1916, he turned to the director of the KPI with a request to grant "...long-term leave ... and without salary" (State Archive of the city of Kyiv. F. 361, op. 60, file 34: Bogoyavlenskyy S. N. Ark. 16). In case of disagreement, he asked to be dismissed from work at the KPI with the provision of a "Certificate" about his stay at the KPI since March 1, 1901, conducting practical classes in agricultural mechanical engineering, as well as the issuance of "per diem" from September 1915, based not on the official salary calculation of 1,000 *krb* but "...from the sum of 1,600 *krb* (1000 *krb* salary + 600 *krb* for conducting practical classes) ..." (State Archive of the city of Kyiv. F. 361, op. 60, file 34: Bogoyavlenskyy S. N. Ark. 16). As an argument, he refers to the "explanation" on this matter of the Control Chamber dated May 23, 1916. And he also asked to compensate 224.45 *krb* for personal funds spent in 1915 for the needs of the Kyiv station for testing agricultural machines and tools. The relevant "Report" was submitted by S. M. Bogoyavlenskyy back on May 20, 1916. It was considered on May 30, 1916. The KPI Board decided to send a special appeal to the Kyiv Control Chamber to obtain the appropriate permission for payments "...from the amounts of the 1916 estimate of the agricultural department..." according to

“...calculations in the amount of 224 *krb* 45 *kop*” (State archive of the city of Kyiv. F. 361, op. 60, file 34: Bogoyavlenskyy S. N. Ark. 14–14a). Petition No. 1307 of May 31, 1916, signed by the director of the KPI, Professor I. D. Zhukov, was sent to the Kyiv control station. It seems that the daily allowances were paid, but the personal expenses were not. By the way, a certificate of employment at KPI has not been received either. Nevertheless, on June 8, 1916, the KPI issued order No. 23, according to which S. M. Bogoyavlenskyy was released from “... performing the duties of the head of the farm at the Station for testing agricultural machines and tools of the Kyiv Polytechnic Institute of Emperor Alexander II... from June 1 1916” (State Archive of Kyiv. F. 361, op. 60, file 34: Bogoyavlenskyy S. N. Ark. 17). Regarding the return of personal funds spent by S. M. Bogoyavlenskyy for the needs of the station, on August 20, 1916, the director of the KPI, in his new letter No. 1969, again due to “...failure to receive a response... to the results of the request...” sent on May 21, 1916 regarding S. M. Bogoyavlenskyy, asked to give consent to pay him 224 *krb* 45 *kop* (State archive of the city of Kyiv. F.361, op.60, file 34: Bogoyavlenskyy S. N. Ark. 18–19). However, it is not known for certain whether this request was granted.

S. M. Bogoyavlenskyy's dismissal from work at the KPI was connected, first of all, with his conscription for active military service. This is confirmed by letter No. 17008 dated June 1, 1916 from the Deputy Director of the Department of Agriculture to the Director of the KPI with a request to hand over to S. M. Bogoyavlenskyy's “Certificate of Attendance for Military Service... No. 4687...” (State Archive of Kyiv. F. 18, op. 1-a, file 467. "Bogoyavlenskyy Serhiy Mykolayovych". Sheet 1). The director of the KPI informed the Department of Agriculture of the Ministry of Agriculture about the service of the summons to S. M. Bogoyavlenskyy by letter No. 3226 dated June 1, 1916 (State archive of the city of Kyiv. F. 18, op. 1-a, file 467. "Serhiy Bogoyavlenskyy Mykolayovych". Ark. 2). Even before this telegram, namely on May 21, 1916, S. M. Bogoyavlenskyy asked the director of the KPI “...to make an order to exclude him from the lists of students subject to the lottery on May 20, 1916” (State archive of the city of Kyiv. F. 18, op. 1-a, file 467. "Bohoyavlenskyi Serhiy Mykolayovych". Ark. 3). But in connection with the content of the statement, there may be other motives for dismissal from KPI! ...

As for the Station for Testing Agricultural Machines and Tools, it was headed by L. P. Kramarenko in mid-1916, who already began to give lectures at the Mechanical Faculty of KPI “From the Course of Agricultural Machine Building” in 1915 (Kramarenko, L. P., 1923, p. 188). Through his efforts, in the same year, the Military-Industrial Committee built a suitable building in the KPI manor, where all the possessions of the station were moved. Among other things, it was also about the exhibits of the Museum of Agricultural Machines and Tools of the Station, which was previously looked after by S. M. Bogoyavlenskyy.

After 1916, the creative fate of the assistant of professors K. G. Schindler and P. R. Sliozkin – S. M. Bogoyavlenskyy remains unknown. According to archival documents, he was alive on June 7, 1928. After all, on that day, S. M. Bogoyavlenskyy submits an application in the name of the rector of the KPI in the state language with a request to issue a “Certificate” that he worked at the institution “... at the machine

research station from March 1, 1901 to June 1, 1916, when he resigned from his post at his own request” (State Archive of the city of Kyiv. F. 361, op. 60, file 34: Bogoyavlenskyy S. N. Ark. 19). At the same time, he adds that he was an assistant to the head of the station Professor K.G. Schindler, and since 1912 performed the duties of its head. In addition, he conducted practical sessions with students on agricultural machinery research. By the way, all this information was confirmed in a separate statement by the world-renowned physicist and chemist, Academician of the Academy of Sciences of the Ukrainian SSR V. O. Plotnikov (1873–1947) (Khto ye khto, 1998, p. 105), with whom S. M. Bogoyavlenskyy collaborated in KPI, where he indicated that “I know Comrade Bogoyavlenskyy very well, for my part, I am asking you to grant his request” (State archive of the city of Kyiv. F. 361, op. 60, file 34: Bogoyavlenskyy S. N. Ark. 20). Currently, this is all documented information about S. M. Bogoyavlenskyy. It is known that he was in the USSR in 1928 and works as an agronomist, is engaged in the registration of a personal pension. It is possible that later he could become a figurehead in the political processes fabricated by the NKVD bodies, like, by the way, another assistant of Professor K. G. Schindler at the Kyiv station for testing agricultural machines and tools – M. M. Kagan. At least the surnames of both of them, in contrast to O. O. Khokhryakov, are not found among the other figures of the comprehensive guide “Science and scientific workers of the USSR”, published in Leningrad in 1928 (Nauka i nauchnye rabotniki SSSR, 1928), and among the working in scientific institutions and organizations of the USSR for 1930 (Naukovi ustanovy ta orhanizatsii USRR, 1930). The surname of S. M. Bogoyavlenskyy was not found among those repressed according to the fabricated NKVD trials of the “Prompartia” (Process Prompartii..., 1931) and “Union of the Liberation of Ukraine” (Spilka vyzvolennia Ukrainy..., 1930), as well as “Counter-revolutionary harmful organization in rural economy of Ukraine” (Marochko, V., 1998). It is not mentioned among the participants in the no less daring case of the “Ukrainian Branch of the Labor and Peasant Party” (Hryhoriev & Ocheretenko, 2010). This can only be confirmed by further archival searches, as, by the way, with regard to his creative output in the form of articles and popular scientific publications. I am sure that he was also an active participant in the development of new designs of agricultural machinery.

Conclusions.

Thus, the significant creative contribution of S. M. Bogoyavlenskyy to the activities of the first station for testing agricultural machines and tools in Europe during 1901–1916, and especially state-professional in preserving its potential in 1911–1916, as an assistant director – first to its founder Professor K. G. Schindler, and then to Professor P. R. Sliozkin, has been proven. It was established that it was S. M. Bogoyavlenskyy who was entrusted with the task of implementing the organizational plan developed by K. G. Schindler for the introduction of field management of the institution's experimental field and the construction of experimental premises at the initial stage of the Station's activity. The participation of the scientist in carrying out appropriate tests of technical means not only for the needs of the

educational process, but also for research and production purposes throughout the territory of the European part of Tsarist Russia and, first of all, in the Ukrainian provinces is also proven. We note the role of S. M. Bogoyavlenskyy in conducting experiments in field and laboratory conditions on soil cultivation, sowing, care for field plants and their collection, as well as in the development of appropriate methods and the manufacture of devices for testing agricultural tools. In addition, he is credited with the preparation and printing of the first issue of: *News of the Station for Testing Agricultural Machines and Tools at the Kyiv Polytechnic Institute*: (1907). The scientist conducted practical classes with students of the Kyiv Polytechnic Institute of Emperor Alexander II on researching agricultural machines, in his creative work he had a number of theoretical and methodological achievements in the field of agricultural mechanics and machine science, he repeatedly acted as an expert in competitive tests of agricultural machines and tools. Along with this, neither the biography nor the scientific heritage of S. M. Bogoyavlenskyy has currently been reconstructed and analyzed to the full extent, which actualizes the further search in this direction as well.

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Conflicts of interest.

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References

- 1900–1901 gg. Izvestiya Stancii ispytaniya zemledel'cheskih mashin i orudij pri Kievskom politekhnicheskom institute Imperatora Aleksandra II. (1907). [1900–1901. *News of the Station for testing agricultural machinery and tools at the Kiev Polytechnic Institute of Emperor Alexander II*]. Issue I. Kiev: V. Kul'zhenko [in Russian].
- Agricultural machine-building station at the Kiev Polytechnic Institute (report by S.M. Bogoyavlensky). *Agricultural engineering. Proceedings of the 2nd All-Russian Congress of Workers in Mining, Metallurgy and Engineering April 17–24, 1913 St. Petersburg. Report of the subsection Agricultural engineering*. Under. ed. P. A. Kozmenko. St. Petersburg: Pivovarsky and A. Typographer, 1913 [in Russian].
- Bautin, V. M., & Kazarezov, V. V. (2005). *Petrovskaya (Timiryazevskaya) akademiya: nachalo (1865–1873) [Petrovskaya (Timiryazevskaya) Academy: beginning (1865–1873)]*, (Vol. 1). Moskva: FGNU «Rosinformagrtekh», [in Russian].
- Bieliakov, H. F., Vasylenko, Ye. S., Vilkov, M. F., & Havrysh, S. A. (1995). *Kyivskiy politekhnichnyi instytut. Narys istorii [Kyiv Polytechnic Institute. Essay of history]*. Kyiv: Naukova dumka [in Ukrainian].

- Bogoyavlenskij Sergej Nikolaevich. Lichnyj sostav Kievskogo Politekhnicheskogo Instituta Imperatora Aleksandra II v Kieve na 1908–1909 akad. god. (1908). [*Bogoyavlensky Sergey Nikolaevich. The personnel of the Kyiv Polytechnic Institute of Emperor Alexander II in Kyiv for 1908–1909 acad. year*]. Kiev: S. V. Kul'zhenko [in Russian].
- Derkach, O. P. (2011). Vnesok mashynno-doslidnykh stantsii u rozvytok naukovykh doslidzhen zemlerobskykh mashyn i traktoriv [Contribution of machine research stations to the development of scientific research of agricultural machines and tractors]. *Istorychni zapysky: Zbirnyk naukovykh prats (istorychni nauky) – Historical notes: Collection of scientific works (historical sciences)*, 11 [in Ukrainian].
- Erk, F. (2004). *Iz istorii stanovleniya sel'skohozyajstvennoj mekhaniki v Rossii* [From the history of the formation of agricultural mechanics in Russia]. Sankt-Peterburg: SZPIIMESKH [in Russian].
- Grebenchuk. (1923). Mashynovyprobuvalna stantsiia ta dosvidne pole K. s.-h. i. (nyini Khutir «Hrushky» K. s.-h. i.) [Machine testing station and experimental field of the Kyiv Agricultural Institute (now "Grushki" Farm of the Kyiv Agricultural Institute)]. In *Kyivskiy politekhnichnyi i Kyivskiy silskohospodarskyyi instytut. XXV rokiv. 1898–1923: yuvileinyi zbirnyk* [Kyiv Polytechnic and Kyiv Agricultural Institutes. XXV years. 1898–1923: jubilee collection]. Kyiv: Derzhavnyi trest «Kyivdruk» [in Ukrainian].
- Hryhoriev, T. F., & Ocheretenko, V. I. (Eds.). (2010). *Sprava «Ukrainskoi filii trudovoi selianskoi partii»* [The case of the "Ukrainian Branch of the Labor Peasant Party"]. Kyiv: «Reabilitovani istoriieiu» [in Ukrainian].
- Khto ye khto: Dovidnyk. Profesory Natsionalnoho tekhnichnoho universytetu Ukrainy «Kyivskiy politekhnichnyi instytut». (1998) [Who's Who: Handbook. Professors of the National Technical University of Ukraine "Kyiv Polytechnic Institute"]. Kyiv: Osvita [in Ukrainian].
- Kolesnyk, V. (2007). *Podil'ske tovarystvo silskoho hospodarstva i silskohospodarskoi promyslovosti (1896–1918): istorychnyi narys* [Podil Society of Agriculture and Agricultural Industry (1896–1918): historical essay]. Vinnytsia: «Rozvytok» [in Ukrainian].
- Kramarenko, L. P. (2018). In V. M. Palii, & Yu. O. Khramov (Eds.), *Natsionalna akademiia nauk Ukrainy. Personalnyi sklad. 1918–2018* [National Academy of Sciences of Ukraine. Personal composition. 1918–2018], (pp. 291–292). Kyiv: Feniks [in Ukrainian].
- Kramarenko, L. P. (1923). Dosvidna stantsiia dlia vyprobuvannia silskohospodarskykh mashyn pry KPI. [Experimental station for testing agricultural machines at the Kyiv Polytechnic Institute]. In *Kyivskiy politekhnichnyi i Kyivskiy silskohospodarskyyi instytut. XXV rokiv. 1898–1923: yuvileinyi zbirnyk* [Kyiv Polytechnic and Kyiv Agricultural Institutes. XXV years. 1898–1923: jubilee collection]. Kyiv: «Kyivdruk» [in Ukrainian].
- Kyivskiy politekhnichnyi i Kyivskiy silskohospodarskyyi instytut. XXV rokiv. 1898–1923: yuvileinyi zbirnyk (1923). [*Kyiv Polytechnic and Kyiv Agricultural*

- Institutes. XXV years. 1898–1923: jubilee collection*]. Kyiv: «Kyivdruk» [in Ukrainian].
- Lyubanskij, F. (1911). *Kratkij obzor 12-letnej deyatel'nosti Podol'skogo obshchestva sel'skogo hozyajstva i sel'skohozyajstvennoj promyshlennosti. (1898–1911)* [A brief review of the 12-year activity of the Podolsk Society for Agriculture and Agricultural Industry. (1898–1911)]. Vinnytsia [in Russian].
- Marochko, V. (1998). Sprava «Kontrevoliutsiinoi shkidnytskoi orhanizatsii v silskomu hospodarstvi USRR». Mekhanizm teroru [The case of the "Counter-revolutionary pest organization in agriculture of the Ukrainian SSR". Mechanism of terror]. *Z arkhiviv VUCHK – HPU – NKVD – KHB – [From the archives of Vuchk – GPU – NKVD – KGB]*, (1/2), 96–104 [in Ukrainian].
- Nauka i nauchnye rabotniki SSSR. (1928). Ch. VI. *Nauchnye rabotniki SSSR bez Moskvyy i Leningrada* [Science and scientists of the USSR. Part VI. Scientists of the USSR without Moscow and Leningrad]. Leningrad: AN SSSR [in Russian].
- Naukovi ustanovy ta orhanizatsii USRR. (1930). [Scientific institutions and organizations of the Ukrainian SSR]. Kharkiv: «Kharpolihras» [in Ukrainian].
- Olejnuk, V. (2007 Mart 31). Pasport dlya izbrannykh, zagnanykh i zapryazhennykh [Passport for the chosen, driven and harnessed]. *Zerkalo nedeli – Mirror of the week*, 12(641), 21 [in Russian].
- Otchet o deyatel'nosti Kievskogo Agronomicheskogo Obshchestva za 1912 god. (1913). [Report on the activities of the Kyiv Agronomic Society for 1912]. Kiev: «Pechatne S. P. Yakovleva» [in Russian].
- Palii, V. M., Khramov Yu. O., (Eds.). (2018). Plotnikov Volodymyr Oleksandrovych [Plotnikov Volodymyr Oleksandrovich]. In *Natsionalna akademiia nauk Ukrainy. Personalnyi sklad. 1918–2018. [National Academy of Sciences of Ukraine. Personal composition. 1918–2018]*, (p. 140). Kyiv: Feniks [in Ukrainian].
- Process Prompartii (25 noyabrya–7 dekabrya 1930). (1931). *Stenogramma sudebnogo processa i materialy, priobshchennyye k delu* [Trial of the Industrial Party (November 25–December 7, 1930). Transcript of the trial and materials attached to the case]. Moskva: Gosizdat, Sovetskoe zakonodatel'stvo [in Russian].
- Shindler, K. G. (Eds.). (1904). *Sveklovichnyye kombinirovannyye seyalki sovremennogo tipa po dannym issledovaniya 1902 goda na konkurse, organizovannom Kievskim obshchestvom vzaimopomoshchi zemledel'cev s vysshim i srednim obrazovaniem* [Combined beet seeders of the modern type according to a study in 1902 at a competition organized by the Kyiv Society for Mutual Assistance of Farmers with Higher and Secondary Education]. Kiev: S. V. Kul'zhenko [in Russian].
- Slezkin, P. (1905). *Agronom–praktikant v hozyajstve. Posobie pri oznakomlenii s sel'skohozyajstvennoj tekhnikoj* [Agronomist-trainee in the field. Assistance in familiarization with agricultural machinery]. Sankt-Peterburg: A. F. Devrien [in Russian].
- Spilka vyzvolennia Ukrainy: Z vynuvalnogo vysnovku v spravi «SVU». (1930). [Union for the Liberation of Ukraine: From the guilty verdict in the "ULU" case]. Kyiv: Derzhvydav Ukrainy [in Ukrainian].

- Otstavka professorov Politekhnicheskogo instituta [The resignation of professors of the Polytechnic Institute]* (1911 March 12). No. 74 [in Russian].
- Vasilenko, P. M., Baraban, N. P., & Koval', I. A. (1988). *Razvitie mekhanizatsii i elektrofikatsii sel'skogo hozyajstva Ukrainskoj SSR [Development of mechanization and electrification of agriculture in the Ukrainian SSR]*. Kiev: Naukova dumka [in Russian].
- Vasilenko, P. M., Pogorelyj, L. V., & Vojtyuk, D. G. (1998). *Mashinovedenie, zemledel'cheskaya mekhanika i tekhnika v 20-m veke [Mechanical engineering, agricultural mechanics and technology in the 20th century]*. *Naukovij visnik Nacional'nogo agrarnogo universitetu*, 9, 10-11 [in Russian].
- Verhunov, V. A. (2022). Agricultural experimental work as a component of modern natural science and culture of the nation: History of formation and evolution of concepts. *Skhidnoievropeyskyi Istorychnyi Visnyk – East European Historical Bulletin*, 25, 213–226. <https://doi.org/10.24919/2519-058X.25.269535>
- Verhunov, V. A. (2007). *Profesor Sliozkin Petro Radionovych (1862–1927) [Professor Petro Radionovich Sliozkin (1862–1927)]*. Kyiv: Ahrarna nauka [in Ukrainian].
- Verhunov, V. A. (2019). *Profesor Shyndler Kamill Havrylovych (1869–1940): hromadianyn Shveitsarii, shcho proslavyyv naukovo-osvitniu skladovu Ukrainy: nauk. dop. [Professor Kamil Havrylovich Schindler (1869–1940): Swiss citizen who glorified the scientific and educational component of Ukraine: scientific report]* Kyiv: Yachynskyi O. V. [in Ukrainian].
- Verhunov, V. A., Mudruk, O. S., & Shkvyra, Z. A. (2019). *Kamill Gavrylovych Shyndler (1869–1940) [Kamil Gavrylovich Schindler (1869–1940)]*. Kyiv: O. V. Yamchynskyi [in Ukrainian].
- Verhunov, V. A. (2022). M. Kahan – uchen ta spodvyzhnyk fundatora Kyivskoi stantsii po vyprobuvanniu zemlerobskykh mashyn ta znariad profesora K. G. Shyndlera [M. M. Kagan - a student and associate of the founder of the Kyiv Station for Testing Agricultural Machines and Tools Professor K. G. Schindler]. *Naukovo-innovatsiyni rozvytok ahrovyrobnytstva yak zaporuka prodovolchoi bezpeky Ukrainy: vchora, sohodni, zavtra: materialy Vseukrainskoi naukovo-praktychnoi konferentsii. Kyiv, 20-21 zhovtnia 2022 r. [Scientific and innovative development of agricultural production as a guarantee of food security of Ukraine: yesterday, today, tomorrow: materials of the All-Ukrainian Scientific and Practical Conference. Kyiv, October 20-21, 2022]*, (pp. 140–143). Vinnytsia: TVORY [in Ukrainian].
- Verhunov, V. A. (2023). S. M. Bohoiavlenskyi (1876 – ?): povernennia v istoriiu ahrarnoi nauky ta osvity v Ukraini [S. M. Bogoyavlenskyi (1876 – ?): a return to the history of agricultural science and education in Ukraine]. *Zelene povoienne vidnovlennia prodovolchykh system v Ukraini: zbirnyk materialiv Mizhnarodnoi naukovo-praktychnoi konferentsii (m. Odesa, 26 sichnia 2023 roku) [Green post-war restoration of food systems in Ukraine: collection of materials of the International Scientific and Practical Conference (Odesa, January 26, 2023)]*, (pp. 11–14). Odesa: Oldi+ [in Ukrainian].

- Verstiuk, V. F., Dziuba, O. M., & Repryntsev, V. F. (2005). *Ukraine vid naidavnishykh chasiv do sohodennia: khronolohichniy dovidnyk [Ukraine from ancient times to the present: a chronological guide]*. Kyiv: Naukova dumka [in Ukrainian].
- Vovk, P. (1927). *Doslidzhennia silsko-hospodarskykh mashyn na Ukraini. Stan silsko-hospodarskykh mashynodoslidzhen na Ukraini v mynulomu. Kyivska, Adzhanska ta Akymivska Stantsii [Research of agricultural machines in Ukraine. The state of agricultural machinery research in Ukraine in the past. Kyiv, Adzhan and Akymov Stations]. Silskohospodarska mashyna – Agricultural machine, 1, 35 [in Ukrainian]*.

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Діяльність вченого агронома С. М. Богоявленського у напрямку становлення і розбудови київської станції по випробуванню сільськогосподарських машин і знарядь (1901–1916 рр.)

Анотація. Метою статті є реконструкція, на основі знайдених архівних «особових справ» ученого агронома Сергія Миколайовича Богоявленського, перебігу подій і фактів його діянь на благо розвитку аграрної науки на українських землях, особливо стосовно становлення і розбудови Київської станції по випробуванню сільськогосподарських машин і знарядь протягом 1901–1916 рр. Наукова новизна статті полягає в тому, що в ній досліджено інформацію про одного з найближчих помічників професора К. Г. Шиндлера в такій непростій, в організаційному відношенні, справі з розгортання діяльності зазначеної станції. Віднайдено і вперше проаналізовано «особисті справи» вченого агронома С. М. Богоявленського, що дало можливість окреслити його внесок не лише у становлення і розбудову станції, а й з'ясувати творчі здобутки на ниві розвитку землеробської механіки та машинознавства. Доведено значний творчий внесок С. М. Богоявленського в діяльність першої в Європі агрономічного напрямку Станції по випробуванню сільськогосподарських машин і знарядь при Київському політехнічному інституті протягом 1901–1916 рр. і по-державницьки професійного щодо збереження її потенціалу в 1911–1916 рр. як помічника завідувача – спочатку її фундатора професора К. Г. Шиндлера, а потім – професора П. Р. Сльозкіна. Встановлено, що саме на С. М. Богоявленського на початковому етапі діяльності Станції було покладено завдання реалізації розробленого К. Г. Шиндлером організаційного плану із запровадження польового господарства установи та будівництва приміщень. Передбачалася й участь ученого у здійсненні відповідних випробувань технічних засобів не лише для потреб освітнього процесу, а й для дослідницьких і виробничих цілей по всій території Європейської частини царської Росії і, насамперед, в українських губерніях. Відзначаємо роль С. М. Богоявленського у

проведенні в польових і лабораторних умовах дослідів з обробітку ґрунту, висіву, догляду за рослинами та їх збиранням, а також у розробленні відповідних методик та виготовленні приладів для випробування землеробських знарядь. Крім того, йому належить заслуга у підготовці та друці першого випуску «Вістей станції випробування землеробських машин і знарядь при Київському політехнічному інституті» (1907 р.). Вчений проводив практичні заняття зі студентами КПІ з питань дослідження сільськогосподарських машин. У статті вперше документно підтверджено факт очолювання С. М. Богоявленським Станції відразу після звільнення з роботи К. Г. Шиндлера у 1911–1912 рр. Доля вченого агронома після 1916 р. залишається невідомою.

Ключові слова: С. М. Богоявленський; К. Г. Шиндлер; П. Р. Сльозкін; Станція по випробуванню сільськогосподарських машин і знарядь; Київський політехнічний інститут

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