LABOR OF MINORS IN INDUSTRIAL OF UKRAINIAN LANDS (19TH – EARLY 20TH CENTURY)\(^1\)

Abstract: At the present stage, the phrase “labor of minors” sounds alarming and is a sign of the low economic and cultural development of society. For the period of industrialization of the 19th – early 20th century this phenomenon was by no means a rarity, but rather one of the components of economic modernization. The Ukrainian lands were no exception in this regard, child and adolescent labor was used in coal, metallurgical, chemical and other industries.

This study is based on workers’ memories of their teenage years, memories of mining engineers, factory inspectors, public figures, as well as, albeit very scattered, statistics on the employment of minors in industry in the second half of the 19th – early 20th century. The most significant and, in this regard, reflected in the memoirs of participants in the production process, were such aspects of the work of minors as working conditions, wages, “professions” of minors, their employment statistics, the evolution of labor legislation and numerous violations of approved norms. The complex conclusion is that it took a long mutual development of public opinion, legislation and family foundations to eradicate the work of minors in industry.

Keywords: labor of minors, memoirs, factory inspection, labor legislation, post-reform period, Ukrainian lands, Russian Empire

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INTRODUCTION

Underage labor is unanimously recognized as a bad thing. But we don’t know of any developed country that hasn’t gone through the stage of universal child labor on its way to progress.

historian Hugh D. Hindman (2016: 3)

The period covering the second half of the 19th century up until the early 20th century was a time of rapid development of Ukrainian lands, especially Donbas and the Dnieper regions with high rates of industrial production, numerous technical and technological achievements and innovations. The social outcomes of these economic heights were quite challenging, including; low wages, high rates of injury at industrial enterprises, insufficient medical care for workers, and the use of underage labor. This article deals, mainly, with the Donbas and Dnieper regions, and the industrially developed South of Ukraine.

Child labor in industrial enterprises is a terrifying phenomenon in itself since we are dealing with those industries that are characterized by extreme physical exertion, danger and increased risk of harmful outcomes to health (for example, from exposure to coal, iron ore, metallurgical, and toxic chemical compounds). Mining engineers wrote about this in their memoirs: Aleksandr Fenin “Coal and Politics in Late Imperial Russia” (Fenin, 1990), Michael Pavlov “Memoirs of a Metallurgist” (Павлов, 1984), and factory inspectors: Sergey Gvozdew “Notes of a Factory Inspector” (Гвоздев, 1911), Ivan Yanzhul “From the Memoirs and Correspondence of the Factory Inspector of the First appeal” (Янжул, 1907), and public figures: Lev Lieberman “In the coal kingdom” (Либерман, 1918), Aleksandr Rusov “Donetsk coal miners” (Русов, 1888), and Catholic priests: Patrick Croghan “The Peasant from Makeyevka” (Croghan, 1982), and, of course, the workers themselves: Kliment Voroshilov “Stories about life” (Ворошилов, 1968), Gornyak N. (pseudonym) “The life of a coal miner” (Горняк, 1902).

Statistical data on the employment of minors during this period are very diverse – exchange information (Бюллетень Харьковской…, 1917), industry collections (Каменноугольная промышленность…, 1908), reports of factory inspectors (Отчет за 1885 г…, 1886), data on the provinces (Опацкий, 1912), materials of congresses of doctors and entrepreneurs (Первый съезд…, 1903; Труды XI съезда…, 1886), information on individ-
ual enterprises (‘Сведения по Петровскому…’, 1915) and data from the general population census in the Russian Empire (The number and composition of workers in Russia based on data Первая всесоюзная перепись…, 1905). A chronological comparison of all these materials makes it possible to compare the dynamics of child and adolescent labor in industrial production. The collections of documents contain the most important legislative acts on labor regarding minors (Балабанов, 1909; Авербах, 1916), on the basis of which the labor legislation of the Russian Empire evolved.

The study of labor amongst minors is quite painstaking; the material is literally collected “bit by bit”. With all the variety of sources (memoirs, statistical materials, legislative acts of the Russian Empire, etc.), they are all rather scarce and unsystematic in this matter. Teenage workers were unable to leave their notes due to illiteracy; adolescents who grew up into adulthood, if they took up memories, then described their child labor only in passing. The memoirs of mining engineers and factory inspectors emphasized events according to their activities. This topic was not relevant even in Soviet times, with all the attention given to the issue of labor. Even children were supposed to be “uncomplaining builders of communism” and it was not customary to talk about their hard work. Thus, the well-known Soviet writer Maksim Gorky reproachfully spoke to his colleague Alexander Serafimovich in writing (the literary work of Serafimovich about mining work in the 19th century was discussed): “Don’t forget, miners are workers! Here you have this little boy – well, I feel sorry for him, of course. But he will grow up, he will be a real hereditary miner. The earth is before him, the bowels will move apart” (Потолов, 1963: 130). Statistical materials are scattered over periods, territories and branches of production; comprehensive statistics on employment of the population, including adolescents, were not created in imperial times.

The balanced methodological approaches of modern researchers of the history of child labor: Boris B. Gorshkov (2009); Hugh D. Hindman (2016) allow a comprehensive approach to the problem of using the labor of minors in the industry across Ukrainian lands at the turn of the 19th – early 20th century. All this extensive complex of sources and literature forms the basis for the study of such aspects of child labor in industrial enterprises: working conditions and wages; “professions” of minors and the emotional component of such earnings; tricks on the part of industrialists and workers for the illegal use of child labor.
WORK CONDITIONS FOR MINORS

The description of the working conditions of minors is horrific. About the period of our teenage labor in the memoirs of a worker, we find the following lines: “We were constantly wet and dirty, the coal dusty mass penetrated our clothes and ate into the skin. And so it was every day – from six o’clock in the morning until the evening. After work, we barely dragged our feet” (Ворошилов, 1968: 27). The impressions of the factory inspector are no less depressing: “Here I met juveniles whose appearance made a terrible impression: you will not find such exhausted wax-colored faces with deeply sunken eyes and completely blue under-eyes anywhere else” (Гвоздев, 1911: 52). Public figure Lev Lieberman describes the same difficult picture of the industrial labor of minors: “With pale, exhausted faces, smeared with soot, with black hands, oiled to the point of impossibility, they [minors] quickly move through the huge building, under the vigilant eye of a foreman” (Либерман, 1927: 47).

The children of workers’ settlements usually got their first work experience at industrial enterprises at the age of 8–10 years. So, in her memoirs, the worker U. Chursina noted that she had to work from the age of eight (Закс, 1955: 98); a miner under the pseudonym “N. Miner” in his memoirs indicated that he began working at the age of ten (first as a horse cart driver in the mine, and later as a cook) (Горняк, 1902: 9); also at the age of ten, Kliment Voroshilov (later an influential Soviet figure) became a coal sorter at one of the Donbas mines (Ворошилов, 1968: 27).

Children were more prone to injury at work than adults; the very way of running factories and plants adversely affected their health. The earlier the child was involved in industrial work, the faster the symptoms of diseases appeared. Thus, the work of children brought them to complete exhaustion: “In the bitter cold, in the scorching heat, in the rain, you have to stand, bend over, and slowly, one by one, throw out pieces of impurity. Blood rushes to the head, legs tremble like whips, hands hang, sweat pours in a hail… to eat, you have to work…” (Рьсс, 1905: 141). In the article “Углекопы” [Coal Miners] we find the following observation by the author: “Children standing ‘on the gley’ [sampling impurities from coal] notice twitching of their hands and head, ache in the lower back, and finally, a headache – the result of any exhausting work” (Рьсс, 1905: 142). In those children who sorted out mercury ores, inflammations quickly appeared on the lower jaw, since “sharp dust particles, entering while
breathing, due to their high specific gravity, immediately got stuck in the folds of the mucous membrane of the lower lip and gums” (Первый съезд горнозаводских… 1903: 171).

As you can see, no concessions were made to minors in industrial labor. Children and adolescents from an early age worked on an equal footing with adults in very difficult conditions. The participation of children and adolescents in the work of industrial enterprises of Ukrainian lands during the imperial period is also evidenced by numerous collective photographs of workers, in which children in work clothes stand next to adults (Pictures 1, 2, 3). In these pictures, the minors look very serious and “in an adult way”, it is felt that they were full participants in the production process, and were scrupulously busy with their work.

Picture 1: Bottle factory of the Society of Glass and Chemical Plants, Konstantinovka, Yekaterinoslav province, late 19th century (now – Konstantinovka, Donetsk region, Ukraine)

Source: from the collection of the Konstantinovsky city museum of local lore (Donetsk region, Ukraine; Праця, виснаження… 2018: 104).
The book *Russia’s Factory Children* (University of Pittsburgh, 2009) gives an interesting idea that “employers viewed children as more adaptable to the new factory regime and able to quickly learn how to work with new machines and technologies than adults” (Gorshkov, 2009: 45). There is a certain meaning in this conclusion, since, in the workers’ memories of their years of child labor we find their admiration for industrial production as a whole, and their perception of it as a necessary and progressive phenomenon in the life of society (“factory shops spread before our eyes – foundry, model, blacksmith, carpentry, repair… we, the children, still did not understand anything about factory life, but these names firmly entered our circulation” (Ворошилов, 1968: 54); “gradually I began to be convinced that the mind and knowledge of a person really do wonders, and my surprise began to change to admiration” (Ворошилов, 1968: 30).

Public opinion in the then villages and workers’ settlements evaluated child labor not so much as work, but as the only correct option for their growing up, as a kind of education. In peasant families, teaching household chores and agricultural labor was considered the most important thing in the upbringing of children. “Hard work” and “helping adults” were extolled above all else in Ukrainian folklore and in the memoirs of contemporaries (“parents are hardworking, and children are not lazy”, “teach children while they are young”, “children, children, where to put you? Or to live for a stove and don’t even give food!”, “Other people’s children loafing seems funny to us, but if ours – then grief”, etc.). According to researcher Boris Gorshkov, “In the pre-industrial period, child labor was not a direct reflection or consequence of poverty, but emerged from the social need for education” (Gorshkov, 2009: 174).

The same social stereotype persists with the advent of industrialization. The situation where a child did not bring economic benefits to his family or, rather, for some reason could not do this (illness, infirmity, inappropriate body constitution), was perceived as an omission of the parents in the educational process, and the child himself was subjected to universal censure and reproaches of “parasitism”. No wonder the working child was proud of himself; there was no need to complain and blame the working conditions, no matter how unbearable they were for the child’s body.
At industrial enterprises, the “professions” teenagers were considered for include: “selector” (cleaning coal or ore from rock), “door boy” (adjusting ventilation of underground galleries), “lamp boy” (filling lamps for underground work with gasoline), “sleigh driver” (transportation of coal on small sleds from the place of breakage to the main drift on the rail track), “carriage driver” (transportation of coal along rails from the entrance to the place of breakage on to the exit from the mine, shaft), “rock cleaner”, “konogon” (walking horses in the arena in the mines where the lifting of coal to the surface was carried out by horse power; Верещинский, 1893: 2; Либерман 1905: 4).

The most common work of juveniles in the mines was the cleaning of coal from rocks (the so-called “enrichment”). Only a few mines had sorting machines for cleaning coal of impurities (quartz, chalk, stones, etc.). “Starting miners” (“electors” or “glakers”) received a box where they put pyrites and waste rock; earnings were calculated based on the number of filled boxes (according to the memoirs of workers, usually 8–10 kopecks per day). Teenage miners described such work as hard and dangerous: “I had to climb steep slopes with a box on to high piles of coal; with a careless movement, one could either injure oneself or let go of the heavy box. For the whole day, only two breaks were allowed – half an hour for breakfast and an hour for lunch” (Ворошилов, 1968: 27). Another description of sorting coal by minors: “10–13-year-old boys and girls for 12 hours, bending over, choosing with their hands with the help of small stumps, caught between coal pieces of rocks, getting 25–35 kopecks in a day” (Либерман, 1927: 47; Рысс, 1905: 143).

In mercury mines, the situation with “enrichment” most often looked like this: the mined ore entered the ore sorting section of the mine, where it was crushed and sorted mechanically. Pieces of ore fell on an endless belt, slowly moving along the bottom of a low chute, and “teenage girls and boys sitting along the chute, and, examining each piece of rock, to select ore pieces” (Первый съезд горнозаводских..., 1903: 172).

In the lamp sections of the mines, we also meet works done by children (Picture 2).
such information can be found in the “Bulletin of Factory Legislation and Professional Hygiene (italics ours)” (Либерман, 1905: 21).

In the mines, where coal was brought to the surface with the help of horsepower, children acted as drivers of horses, “for 12 hours a day and a night they were forced to walk in circles” (Либерман, 1927: 48). Usually, such young workers were hired from local peasant families, they were not members of the workers’ artel (Русов, 1888: 511).

In addition to groundwork, teenagers also went underground, carrying lamps and adjusting the ventilation doors of underground galleries (Либерман, 1927: 48). A particularly common type of underground labor for children, a specific children’s profession, was the work of “door boys”, whose duty it was to open and close mine-doors that regulated the airflow
inside the mines. Researchers of the labor question emphasized that “this work, at first glance so simple and easy, was a constant source of childhood illnesses, often fatal. The reason was the continuous drafts to which the children were subjected to” (Потолов, 1963: 129). At the same time, the child was actually in voluntary underground confinement since he only saw trolleys with coal passing by.

No less difficult was the work of the “sledman” (for half a day to crawl on all fours in the semi-darkness along the dirty inclined mine passages, moving behind him a sleigh with 5–7 pounds of coal attached to the straps) and a “wagon driver” (to roll 40-pound trolleys on rails). Engineer Alexander Terpigorev wrote in his memoirs that children of 13–14 years of age worked as sledman’s assistants, helping to pile coal on the sled: “This work was very difficult, as they always tried to put blocks of the largest possible size: weighing at least two–two and a half pounds each” (Терпигорев, 1956: 68).

At metallurgical plants, the labor of teenagers was used in the selection of slag, cleaning and lubricating the boilers of steam engines; children began their work as apprentices in workshops (Потолов, 1963: 129). Especially common was the work of children in brick factories, where they were attracted even for such hard work as carrying bricks. The book “Workers of Donbas” gives an example of an old Donetsk worker I. Tupitsyn, who, from the age of 13 worked at a brick factory in Yuzovka (modern Donetsk), carried 8–9 hot bricks at one time on special trestles. “Hot bricks burned the neck, and the owner or foreman kept putting an extra brick” – such memories remained with the worker (Потолов, 1963: 130).

For such industrial work, juveniles received an average of 8–10 to 63–80 kopecks per day (depending on the type of production, the complexity of the work, the owner of the enterprise, the availability of the latter with labor resources and many other factors), which was approximately half of the labor of an adult (Либерман, 1927: 40). For example, according to payroll records for the production of refractory bricks at the Petrovsky Plant in 1915, adult male workers received 1.3 rubles per day, teenagers – 80 kopecks, younger boys – 60 kopecks (‘Сведения по Петровскому заводу…’, 1915: 37, record 67, file 712: 13), that is, the salary of children and adolescents was lower by 39–53% than that of men. In the collection “Factory industry of the Kharkiv province” regarding the wages of children and adolescents, similar data are given: “The earnings of minors are only about a third of the earnings of adult men, and ado-
lescents and women – about 0.6 of this earnings” (Опацкий, 1912: 63). Nikita Khrushchev (first secretary of the Central Committee of the CPSU in 1953–1964) in his memoirs cited the fact that he was a boy in the 1900s working at a machine-building plant in Yuzovka (now Donetsk) and received 25 kopecks a day, while the mechanic to whom he was attached – 2 rubles (Хрущев, 1999: 603). This difference in the wages of adults and minors became the basis of the well-established opinion in public opinion that industrial enterprises widely use the work of teenagers in order to save money on the payroll.

STATISTICS OF CHILD AND ADOLESCENT LABOR

Statistical data on the use of child labor in industrial enterprises are scarce, unsystematic, associated with many objective flaws and deliberate falsifications. At the end of the 19th century, the percentage of children and adolescents working in industrial enterprises throughout the empire was 7.1%, particularly, in the coal industry; 2.7%, in metallurgy, and 8.9% in metalworking. As of 1897, 2 321 children under the age of 15 worked at the industrial enterprises of the Yekaterinoslav province (including 478 boys and 95 girls under 13) (Первая всеобщая перепись…, 1905: 82–89). At the same time, minors who worked in auxiliary temporary jobs were not taken into account by official statistics.

According to the 1897 census among the workers of the Donbas, children under 14 years of age accounted for 0.9% in the coal industry, 2% in the metallurgical and metalworking industries, 1.3% in the chemical industry, and 2% in the production of building materials; among adolescents aged 15–16: in the coal industry – 1.5%, metallurgical and metalworking – 5.6%, chemical – 0.9%, production of building materials – 4.4% (Потолов, 1963: 127). For example, at the Yuzovsky metallurgical plant, according to the factory inspector of the Kharkiv district Vladimir Svyatlovsky, in 1885, 112 children worked (out of 2 600 workers, i.e. 4.3%) (Труды XI съезда…, 1886: 77; Отчет за 1885 г….1886: 22–23). At the same time, juveniles made up almost a quarter of all workers at the enterprises of the Belgian Society of Donetsk Glass Factories near Konstantinovka station.

According to rough estimates at the beginning of the 20th century in the whole of the Russian Empire, the number of children working at
industrial enterprises aged 12–14 years was 0.79%, and adolescents 15–16 years old – 6.34% (Гвоздев, 1911: 33). The level of use of minors for labor in the coal industry of Ukrainian lands in 1909–1914 can be judged from the data of the Statistical Bureau of the Congress of Miners of the South of Russia: minors accounted for about 7.2% (5% – boys, 2.2% – girls), this figure was almost the same as the average for the empire. In absolute data for 1914, there were 845 children and adolescents who worked at the industrial enterprises of Donbas (see Table 1).

<table>
<thead>
<tr>
<th></th>
<th>Men</th>
<th>Women</th>
<th>Total</th>
<th>Part</th>
</tr>
</thead>
<tbody>
<tr>
<td>Children</td>
<td>884</td>
<td>727</td>
<td>1611</td>
<td>2%</td>
</tr>
<tr>
<td>Teenagers</td>
<td>4645</td>
<td>1589</td>
<td>6234</td>
<td>7%</td>
</tr>
<tr>
<td>Adults</td>
<td>86688</td>
<td>873</td>
<td>87561</td>
<td>92%</td>
</tr>
<tr>
<td>Total</td>
<td>92217</td>
<td>3189</td>
<td>95406</td>
<td>100%</td>
</tr>
</tbody>
</table>


In the early 1910s according to the data of the yearbook “Coal industry in Russia” among the miners of Donbas, the percentage of children and adolescents (12–16 years old) was 7% (Каменноугольная промышленность…., 1908: 82–83). For the Kharkov province, the statistics looked as follows: in 1901, the percentage of minors (12-15 years old) was 1.8, adolescents (15–17 years old) – 9.41 (Опацкий, 1912: 45); in 1911, minors – 0.13, adolescents – 12.64, i.e. in ten years, the number of working children in statistical reports decreased by 92.7%, and the use of adolescent labor increased by 25.6%.

At large industrial enterprises, the percentage of underage workers was apparently lower, since, according to factory inspectors, the use of their labor was organizationally difficult and unprofitable (Гвоздев, 1911: 48). Although, according to the data for 1913, 4.7 and 1.5% of children, 2.7 and 10.7% of adolescents worked at the enterprises of the Novorossiysk and South Russian companies worked 4.7 and 1.5% of children, 2.7 and 10.7% of adolescents (see Table 2).
Table 2: Distribution of workers by sex and age in enterprises Novorossiysk and South Russian Societies, 1913

<table>
<thead>
<tr>
<th>Companies</th>
<th>Men</th>
<th>Women</th>
<th>Teenage boys</th>
<th>Teenage girls</th>
<th>Boys</th>
<th>Girls</th>
</tr>
</thead>
<tbody>
<tr>
<td>Novorossiysk</td>
<td>92.2%</td>
<td>12.1%</td>
<td>2.2%</td>
<td>0.5%</td>
<td>1.0%</td>
<td>3.7%</td>
</tr>
<tr>
<td>South Russian</td>
<td>87.3%</td>
<td>0.5%</td>
<td>7.5%</td>
<td>3.2%</td>
<td>0.8%</td>
<td>0.7%</td>
</tr>
</tbody>
</table>


We must agree with the opinion of the researcher Sergey Potolov that “the [statistical] data presented did not always and neither in everything reflect the actual state of affairs; quite often we were faced with violations of existing laws” (Потолов, 1963: 128).

**LEGISLATIVE BASIS OF THE RUSSIAN EMPIRE ON THE LABOR OF MINORS**

Unfortunately, in the 19th century early child labor occurred in many industries in Europe (even from the age of 4). The administrative authorities sought to limit the use of child labor by legislative norms and thereby protect young people from early disability and death. In the Russian Empire, the commission of Adolf Shtakelberg (1859–1862) was one of the first to deal with the issue of labor of minors; due to criticism from breeders and manufacturers, the bills prepared by officials were never adopted (Ипутатов, 2022: 31).

In fact, the first legislative act in the Russian Empire protecting the labor of minors was the law of August 7, 1845, which prohibited night work for minors under 12 years of age. However, this law had no practical application since it did not establish any sanctions for its violation and did not determine the rules for supervising its implementation (Либерман, 1927: 46). For comparison, the first laws on the employment of minors were adopted in Zurich in 1815, in Great Britain in 1819 and 1833, in Prussia in 1839, in France in 1841, in Sweden in 1852, and in Austria in 1859. These laws established the minimum age of underage workers, prohibited their work at night and limited the length of the working day, and also introduced the institution of factory inspectors to monitor compliance with these provisions. However, like the Russian law of 1845, most of
these early European child labor laws did not have sufficient enforcement tools (Gorshkov, 2009: 43–44).

Not until 1882 did the Russian Empire introduce punishment for violation of the norms on the labor of minors in the form of a fine of up to 100 rubles or arrest of up to 1 month (the law “on minors working in factories, and industries” of June 1, 1882); to monitor the implementation of the law, the institute of factory inspectors was established. It was this law of 1882 that became the basis for further development of the entire system of labor legislation in the country.

In the 1880s, a number of labor regulations were adopted, which, apparently, were caused by the general rise of the country’s economy, even by overproduction in its individual sectors. From the point of view of the legislators, all this indicated the need (and the possibility) of limiting the length of working hours for certain categories of workers (the laws “on the schooling of minors working in factories and industries” of June 12, 1884, and “on the prohibition of night work for adolescents under 17 years of age” of June 3, 1885, “rules on supervision of the establishments of factories and industries as well as on mutual relations between manufacturers and workers, and the laws “on increasing the number of factory inspectors” of June 3, 1886, etc.; Ельницкий, 1924: 167–170; Ипутатов, 2022: 34).

The law of March 9, 1892 prohibited the use of children under 15 years of age in underground and night work. Their working day was to last no more than 8 hours a day; the law of June 2, 1897 “on the duration and distribution of working time in the institutions of the factory or industry” established a working day for men (11.5 hours) and women (10 hours); teenagers could work no more than 10 hours with a six-day working week, minors – no more than 8 hours (Михайловский, 1896: 478; Бондарюк, 2014: 100). The Regulations of the Council of Ministers of October 19, 1915 allowed a wider use of the labor of women and adolescents in all enterprises of the factory, mining and mining industry, working for defense, in particular, and in hazardous industries (Авербах, 1916: 143–144), which was caused by the acute problem of labor resources during the years of the First world war.

Thus, in accordance with the legislation of the Russian Empire, children under 12 were not allowed to work. Children were considered minors between the ages of 12 and 15. They could work no more than 8 hours a day and no more than 4 hours in a row. Minors were not allowed to work at night (Гвоздев, 1911: 47). Moreover, the “Statute on Industry” contained an article that clearly indicated that minors (12-15 years old) were not al-
allowed to work “which, by their properties, are harmful to the health of minors or should be recognized as exhausting for them (Article 111)” (Рысс, 1905: 142). The punishment for violating the laws on the labor of juveniles remained only arrest for up to 1 month or a fine of 100 rubles, which could hardly deter violations.

In general, the legislation of the Russian Empire regarding the labor of minors was quite liberal. Not only that laws were developed and adopted, which regulated the working conditions and education of minors, but also as mechanisms for monitoring their implementation. Unfortunately, numerous tricks made it possible to circumvent all these norms.

**ILLEGAL TRICKS IN ENGAGING THE LABOR OF MINORS**

Managers of industrial companies usually argued the work of juveniles as exhausting, thus “showing pity for them” since they themselves and their families were in great need of a “piece of bread”. Indeed, we find evidence that adults themselves begged administrative officials or factory officials to provide children (often under the required age) with the opportunity to work, and on any conditions. The factory inspector described such situations as follows:

The workers, ignorant in their mass and in need of every extra penny, are far from sympathetic to the law on the work of minors and do not think about their children working less, but only about how to quickly attach them to a factory and so that they can earn more, no matter at what the cost it is achieved (Гвоздев, 1911: 49).

In industrial settlements, as in the traditional peasant society of that era, children were perceived primarily as a labor force (Праця, виснаження… 2018: 104). As the American researcher Hugh Hindman emphasizes, “Children, always working with their parents in pre-capitalist times, naturally followed their parents and entered into industrial production” (Hindman, 2016: 4).

The presence of a huge mass of unskilled manual labor in production during the 19th – early 20th century created all the conditions for the use of children’s hands. From the memoirs of the doctor of the Korsun mine, Stanislav Klingenberg, we see that the use of child labor was common: “Often, parent-miners sent almost eight-year-old boys to work in the offices, of course, with other people’s passports” (Первый съезд горнозаводских…, 1903: 166).
All this seemingly terrifying situation found a fairly simple explanation in the working environment of those times. Adults viewed the involvement of children in labor as a natural process of preparing them for independent living, an opportunity to pass on knowledge from generation to generation. The miner’s son usually started working under his father’s supervision as an assistant. Teenagers took on more serious work; they could be the younger partners of their fathers. Those who started working at the mine without parents learned from relatives and comrades. From the point of view of modern Western researchers, the described situation also looked quite understandable: in the pre-industrial period, children usually worked, but their work was not perceived as a problem; the industrial labor of children later began to be perceived by society as a socio-economic problem and a blatant evil (Hindman, 2016: 6). In the book *Russia’s Factory Children* we find the following conclusions of the author: “Children, as a rule, did not produce more than they consumed, but all sectors of the state and society considered their work as a necessary experience that prepared them for life as adults” (Gorshkov, 2009: 25).

The age limit, enshrined in legislative norms, regrettably, was easily overcome in practice. In his memoirs, mining engineer Alexander Terpigorev pointed out that “it was only a formality; the mine administration often hired 13–14-year-old boys who said that they were already 16 years old, and the mining authorities turned a blind eye to these outrageous cases” (Терпигорев, 1956: 68). In other sources, we see the same picture of violations: “Most of them are difficult to give even 13 years old, very often children of 11 years old come across. But if you ask anyone how old he is, he, to your amazement, will answer: “fifteen”. This is often done by order (of course, unofficially) of the lower administration, which fulfills the “law” in this way, and, moreover, it is not in the interests of the little boy himself to reveal the truth: he may lose his place, and this opens up the prospect of malnutrition and eternal reproaches at home in laziness and idleness. This is how the law on the age of working children was implemented” (Либерман, 1905: 22; 1927: 47). Researchers of the Soviet era also wrote that “under these conditions, children, who were brought to the mines of Donbas only by the extreme need of workers and peasant families, artificially inflated their age” (Потолов, 1963: 128). After several decades of the adoption of laws on the labor of minors, the situation has not changed dramatically. Publicist Lev Lieberman wrote that in 1913, and in 1915, and at the beginning of 1917, he personally saw minors who
worked in the mines of Donbas for 12 hours as horse drivers, coal sorters, lamp refuellers, etc. (Либерман, 1927: 48).

The established working time for minors was also not respected. Factory inspector Sergey Gvozdev in his report pointed out that “with such use of the labor of minors, they worked outside of any norms of working hours, 12 hours a day or more” (Гвоздев, 1911: 52). The chief factory inspector of the empire, Yakov Mikhailovsky, described the same situation: “The Russian manufacturer had the right to use the labor of workers of both sexes and different ages on all days of the year, including Sundays and holidays, and at all hours of the day; juveniles, starting from the age of 6–7, adolescents of both sexes and adult women worked in factories and manufacturing companies on an equal basis with adult men” (Михайловский, 1896: 478).

There is ample evidence of overtime child labor. So, from the memoirs of the head of the lamp department of one of the Donbas mines, the children had to come at 6 o’clock and work until 6 o’clock in the morning or evening, depending on the shift (day or night). “However, many of their own volition (!) came even earlier, say from four o’clock (!!)” – the worker summed up [Либерман, 1927: 47]. These words prompt one to think about the well-being of the children’s life at home if they “at their own request” came to the mine two hours earlier. The interior view of the miners’ barracks, where both adults and children lived, was also very ascetic (Picture 3).

The laws on the labor of minors also provided for their education. The legislation proclaimed the right to train workers under the age of 16, for which the enterprise had to allocate 18 hours a week for them to attend school (Балабанов, 1909: 81). However, the article of the law was advisory in nature: industrialists “could”, but were not “obliged” to open schools for underage workers. In fact, the issue of schooling minors remained unresolved. As the researcher Boris Gorshkov notes, “the idea of child labor as a form of education was inferior to the idea of sending children to schools for education” (italics ours) (Горшков, 2009: 124).

During the First World War, the influx of adolescents into industrial production objectively increased. If in 1913 the percentage of teenagers in the metallurgical industry of Donbas was 2.9% (apparently, after more than 30 years of labor legislation, a significant radicalization of public opinion regarding child labor did not remain without traces), then in 1915 – already 9.4% (Кирьянов, 1971: 42). For 1917, the “Bulletin of the Kharkov Coal and Iron Trade Exchange” provides the following statistics in the cat-
The category “women and adolescents” at industrial enterprises: in the metallurgical industry – 14%, coal – 11%, iron ore – 7% (Бюллетень Харьковской..., 1917: 110). From the materials of representative organizations of entrepreneurs, we see that the problem of labor resources, especially skilled ones, was very acute, but we do not find a single mention of stimulating the influx of adolescents and women into production, and this would not have been of decisive importance, since large-scale industrial production was based on the physical strength of male labor. Industrialists tried to solve this problem by expanding the list of categories of workers exempted from mobilization, using the labor of refugees, prisoners of war, and for skilled work – foreigners (Persians, Czechs, Slovaks and even Chinese) (Шандра, 2016: 286–288).

Thus, the labor of minors remained a typical phenomenon for the vast majority of enterprises until the end of the imperial period. A set of rea-
sons characteristic of the early stage of industrialization (namely: social habits and traditions, a significant need for low-skilled and unproductive labor, the absence of an alternative to children’s pastime – kindergartens, schools), created conditions for early labor of minors. It took continuous progressive changes in legislation, social awareness, technological development of enterprises, as well as the massive expansion of educational institutions, for teenage work to become an exclusive phenomenon, and in many countries completely eradicated.

CONCLUSIONS

On the one hand, the prevalence of underage labor was an indisputable sign of the social problems of the 19th – early 20th centuries: poverty of a significant part of society, low level of education, conflicting moral and ethical standards in families. On the other hand, the post-reform period was the time of the formation of large-scale capitalist production, fraught with all the difficulties of the initial stage (technological errors, low level of mechanization and labor productivity, unjustified projects, etc.). Of course, even at large industrial giants there was a significant amount of work, not only not requiring qualifications, but also those whose productivity, execution time and quality were not significant. Vacancies for such inherently low-productive work were filled by minors.

The fate of the psychological moment follows, implying that it was embarrassing for an adult man to engage in such supposedly “simple”, “auxiliary”, “unimportant”, “menial”, and “secondary” work. Children and teenagers were ideally suited for the role of a kind of “production assistant”.

A more balanced view of the involvement of child labor, as an objective process of development and industrial production, as well as being the social foundations of society. In the materials of the work of business associations, we do not find any materials regarding the expansion of the use of child labor. Even during the First World War, when the percentage of labor of minors and women objectively increased, representative corporations of industrialists very often considered the issue of attracting labor resources, however at the expense of prisoners of war, foreign specialists, even from the “Celestial Empire”, and in no case at the expense of child labor.
All these facts about the use of juvenile labor in industrial production of the late 19th and early 20th centuries undoubtedly leave a heavy after-taste and lead to the only correct conclusion: the complex responsibility of the family and its foundations, society and its traditions, state power and its control, industrialists and their entrepreneurial activities for the next generations.

Iryna Shandra, Doctor of Historical Science, Full Professor, Professor of the Department of History, Museology and the Study of Historical Monuments, Kharkiv State Academy of Culture (Kharkiv, Ukraine). Scientific interests: social and economic history of Ukraine, history of entrepreneurship, trade relations and patronage. Scholarship recipient of the project „Grant na start ‘Pamiętniki przedstawicieli elit ekonomicznych jako źródło historii społeczno-gospodarczej ziem ukraińskich (w II połowie XIX w. i na początku XX w.).’”, Nicolaus Copernicus University in Toruń, Poland, № 65/DWNH/2022”.

Olha Birova, Candidate of Historical Sciences (Ph. D.), Assistant Professor of the Department of History, Museology and the Study of Historical Monuments, Kharkiv State Academy of Culture (Kharkiv, Ukraine). Scientific interests: history of Ukraine, preservation of cultural heritage.

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