

THE LAST SABRE OF POLAND. POLISH SABRE MODEL 1934 - LUDWIKÓWKA

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Abstract: Polish cavalry is one of the most famous in the history of the world military. Its splendour did not extinguish in the sixteenth and seventeenth centuries. Between the First and Second World War, the cavalry tradition was cultivated in Poland. Then the best sabre of all time was created - the Polish sabre model 1934 also called 'Ludwikówka'. This weapon combined the tradition and the latest trends. The process of its production, selection and use was special. This sabre passed into legend as the last Polish fighting sabre used by Polish soldiers during the Second World War. The legend of this weapon cannot be forgotten. For this reason, it was decided to bring the genesis of its origin, process of execution, quality control and implementation into the army.

Keywords: sabre, Polish sabre, Ludwikowka, lancers, cold steel

Only few objects are so closely connected with the fate of Poland like a sabre [1, pp. 133–141]. The sabre was mainly intended for cavalry and was used to slice, rarely to push [2, pp. 11–18]. The cause of its spread in the country of the Vistula River should be sought in close relationships with the East and the common threat of mobile Asian hordes. Under such circumstances, the necessity of adopting in the Polish Army some tactical solutions enabled the repulsion of light cavalry formation. Very important was also the Hungarian influence in Poland at the turn of the thirteenth and fourteenth century and the impact of the oriental culture [3, pp. 6, 30–32].

1. Introduction

The cultural and military importance of sabre in Poland is significant. Therefore, this weapon became both a symbol of Polishness, steadfastness and military excellence of Poles. Even in the interwar period (between the 1st and 2nd World War), when the cold steel left the history cards, the sabre was a symbol of Polish heroism. Unfortunately, in the September 1939 campaign, it also proved to be a symbol of Polish military backwardness and defeat. Undoubtedly, the most remarkable variant of the sabre, created based on the experience of generations, was a sabre model 1934 also called from the place of its production (Ludwików Steelworks) - *Ludwikówka*. This weapon, although excellent in its construction, execution and material, used by the most outstanding cavalry, could not oppose the German and Russian enemies. However, it is a symbol of the end of power of the Polish army and the end of side warfare arms. Unquestionably, *Ludwikówka* became the last battle sabre of Rzeczpospolita.

Ludwikówka's subject is known in Polish historiography. However, recent studies appeared almost half a century ago and have not taken into account the socio-cultural background of its creation and use. In the period of socialism, symbols of Rzeczpospolita's power could be described only as valuable technique, not as signs of national independence and power. In this manner,

prominent authors, now extensively cited, characterized the sabre. Fortunately, for a few years there has been a social movement intended to find, describe and promote symbols of Polish military technology, including sabres. Unfortunately, these activities are mostly amateurish, although very valuable [4]. However, the importance of Polish weaponry is little known in countries outside of Poland, although it enjoys increasing interest among enthusiasts. We try to briefly characterize *Ludwikówka* sabre in historical, cultural and social contexts for these reasons. We also carry out its assessment, both as a tool of combat, as well as symbolic significance.

2. The oldest Polish sabres

The oldest Polish sabres are copies used in infantry units on the second half of the 15th century [5, p. 185]. However, the wider use of this weapon is observed in the reign of king Stefan Batory. At that time, a number of eastern weapons, known as the chechug or Armenian karabela, appeared in Poland. At the end of the 17th century, the type of Polish sabre was developed from these forms of eastern sabres. The great development of cold steel is observed later: there is famous *Zygmuntówka* (1st part of 17th century) - from the name of king Zygmunt Vasa, *Janówka* - from Jan III Sobieski (2nd part of 17th century), *Augustówka* or at the end - *Kościuszkówka* (the end of 18th century).

A separate type of sabre developed collaterally to karabela, was the hussar sabre (the first copies from 1630). These arms had a slightly curved firebrand, a single bail hilt, a straight crossguards with an unchained back arm and a long barb that ran parallel along the firebrand. The complete novum in the design was a toe greatly facilitating the operation of the sabre [5, p. 272], [6, p. 35]. Hussar sabre combines the possibilities of the best construction forms of eastern and western European sabres (toes) [7]. A new sword was created to improve the combat of the horse [8, pp. 57–93], [9]. Its design system placed it in the rank of the best cavalry sabre in the world. This resulted in the

use of the combat until the end of the eighteenth century. Designers of the Polish twentieth century sabres modelled it on the hussar sabre. Both types of sabres became symbols of the Polish nobleman in the nineteenth century, when the Polish lands were under the domination of Austria, Prussia and Russia [10].

3. Sabre in the interwar period

When Poland gained independence in 1918, about 50,000 sabres remained in the armaments of the newly formed army, which were used earlier by the cavalry of the invading armies [2, p. 151], [11, p. 70]. The first sabre, made only for Polish soldiers, was a sabre ordered by the Austrians in 1917. The first copies were made at the Zieleniewski Factory in Cracow [2, p. 172].

Sabre, along with various types of French, English, Prussian, Austrian, Russian and Cossack sabres, entered Polish Army as a statutory weapon and were the first exact Polish cavalry equipment after 1918 [2, p. 151], [12]. The great difficulties of the newly formed army, with the unification of armaments, caused that at the end of 1919, officers of the 1st Lancer Regiment (1 Pułk Ułanów Krechowickich) were privately commissioned to design a new model of the sabre modelled on hussars - *Krechowiecki* sabre. This weapon mainly made in Germany is considered to be the prototype of the 1921 model sabre [13]. Undoubtedly, the new type of sabre was the highest quality as was produced by outstanding German companies, like Carl Eickhorn of Solingen and many excellent Polish companies, such as Alfons Mann Factory, Jarnuszkiewicz Factory, ARMA from L'viv, G. Borowski Factory and Motor Factory Perkun (notabene being the most prominent engine factory in Poland) [14], [15, pp. 24–34].

Probably the most widespread sabre in Polish Army in the interwar period, was the model 1921 (modification - 1922), which was the refinement of the 1917 sabre. Its final version looked as follows:

[...] light firebrand, length 80 cm, width at the base 3.4 cm, slightly tapering to 2.5 cm, with one groove [...] (or triple groove - note by author), cross-yoke handle with smooth yoke extending upward [...], wooden handle binding, [...], weight of sabre about 0.9 kilograms [16, p. 245]

It was produced in G. Borowski and A. Mann factories. Unfortunately, the sabre had a negative opinion of the users who paid attention to the poor quality of the steel it was made of.

4. Ludwikówka

4.1 Competition

In 1925, due to imperfection, lack of standardization and lack of numbers in the military sabres, work on a new model of side arms for cavalry was undertaken. Subsequently, sabres model 1921/22 were eliminated from cavalry units. In 1925, the *General Inspectorate of the*

Armed Forces (Generalny Inspektorat Sił Zbrojnych) commissioned the *Armament and Equipment Committee* (Komitet do Spraw Uzbrojenia i Sprzętu) to develop a new sabre model. The head of the work was experienced cavalry colonel Zbigniew Brochowicz-Lewiński [17, pp. 121–122], [18].

A competition to develop a new model of sabre was announced. The sabre was supposed to be designed as a cavalry sabre and its overall weight with the scabbard should not exceed 1.6 kilograms. It should have the proper balance for its functionality and be prepared for chopping and stabbing. The firebrand and the hilt should be of adequate strength, the hilt with a yoke at right angles should fasten with the yoke at right angles, which was to fasten with the crossguards. Cladding of the hilt should be non-metallic and the metal parts of the hilt - the upper arm, the crossguards and any rivets, should be retracted into the handle so as not to transfer the cold on the hand of the horseman. Additionally, the metal parts of the sabre had to be made of stainless steel and the matching of the sabre to the scabbard was to be accurate enough to eliminate the rattling of the weapon [8, p. 57].

In the competition, taking place on September 16, 1931, seven teams represented by eminent theorists and armaments practitioners attended. Competition requirements were very strict. Therefore, not all original projects were accepted. However, the jury proposed to select four best projects and make 30 test pieces. After sabres manufacturing at the Perkun factory in Warsaw, the sabres were assigned to 6 selected cavalry regiments for testing [2, p. 199]. Drawing on the conclusions of the trial reports in 1934, work on the second prototype of the sabre began. In 1935, General Adolf Waraksiewicz and Colonel Tomasz Dobrzański - eminent Polish fencers, recommended one of these projects for the Polish Army. In the spring of this year, 150 new experimental sabres were made. The competition commission, led by General Bolesław Wieniawa-Długoszowski, finally accepted the draft of the sabre in the autumn of 1935.

4.2 Technical specifications

The model 1934 of sabre was characterized by excellent technical and tactical qualities, surpassing the quality of the cavalry sabres of other European countries. Mainly, it was manufactured from the spring steel from the Baildon Steelworks in Katowice (branch of the Ludwików factory). According to the procurement based on the results of the tender, each sabre had to meet strict requirements [4]:

Length 82.5 centimetres, width at the base 3.4 cm, the ridge thickness at the base 0.8 cm, and at by curvature 3 cm. Blades were sanded on both sides with grooves on the back. The blade ended with a double-edged feather, 21 cm long, with a spear on both sides. The hilt had to have a handle made of beech wood with goffering; linings made of seasoned wood and impregnated with linseed. The wood grains on the linings were laid at an angle of 15 degrees relative to the mandrel. To be fixed with two steel bolts

with brass nuts and brass reinforcement ring at the base. Brass crossguards 13 cm in length, in the ring part end with a hole for the sling, and in the slicing part curved at right angles to the hilt, forming a yoke coupled to the mandrel of the hilt. Each of the crossguards attached by one nut to the mandrel of the hilt. Length of the handle 10, 5-cm. Leather pad mounted on the hilt base. At the yokes leather sling. Single-ribbed oxidized steel scabbard consisting of a ring with a cell and a movable spike with a spur. Inset pressed into the scabbard pallium. The total weight of the sabre with the scabbard was 1.46 kilograms and the weight of the sabre was 0.91 [13, p. 76].

Institute of Technical Arms (Instytut Techniczny Uzbrojenia) was developed to the sabre the appropriate model of the sling and the instructions for strapping to the saddle in accordance with the recommendations of the Centre for Cavalry Training (Centrum Wyszkozenia Kawalerii) [19, p. 163].

August 26, 1935, the Minister of Defence approved the sabre model 1934 as mandatory in the Polish Army. A trial series of sabres were sent for testing in cavalry regiments. As a result of this research, a new model of sabre was adopted in the army resulting in its introduction into mass production based on the order of the *Head of the Armaments Department (Departament Uzbrojenia)* of February 22, 1936, which states:

Because of the positive results of tests carried out with the sabres in cavalry units, I allowed Ludwików factory to launch mass-production of the sabre model 1934. The head of the Arms Institute of the Armed Forces, in preparation of technical conditions will, as far as possible, take into account the objections of the Head of Cavalry Department [2, p. 200].

4.3 Ludwików Factory

The question is why the production of the sabre was commissioned to Ludwików steel factory in Kielce. Probably the answer can be found in the fact that in Poland in the 1920s there were no factories capable of producing this type of military equipment. Therefore, the Ministry of Military Affairs undertook building new factories, which could work for the needs of the army. Their location in the *Safety Triangle (Trójkąt Bezpieczeństwa, Centralny Okręg Przemysłowy)*, which also included Kielce, was understandable [14, pp. 145–148], [20]. The case also facilitated government's takeover of the Silesian steel concern, *Huta Pokój*, which was a producer of high quality spring steel essential in cold steel manufacture [14, pp. 89–91], [21]. The company, alongside number of other factories, entered Huta Ludwików in Kielce [22, pp. 45, 58].

In February 1936, the Ludwików Factory received an order from the army. It consisted of 11,500 sabres (the order was increased to 16,000). The next batch was sent to production on January 11, 1937 (an additional 14,470 units). Finally, on July 1, 1938, the Polish Army possessed

39 564 sabres model 1934, of which 27 605 were equipped with troops. Therefore, when needs were lower, the difference was used to arm the other branches. Cavalry units received it for the entire state of mobilization in the rules provided. Therefore, the units mobilized by backup centres in September 1939, were generally armed with the sabres 1934 model [23, pp. 109–128].

4.4 Quality control

In Ludwików Factory existed internal sabres quality control procedures. However, quality control was so rigorous that it provided not only quality assurance but also sabre sharpening rules and the choice of preservative vaseline types. Under special control was also sabres-made material. The first step was checking the steel. The L'viv Polytechnic studied steel for the production of armaments, manufactured in Baildon Steelworks in Katowice. Next, already in Kielce, number of control activities were carried out during the production process a, which traces preserved on the sabres. There are traces of small dots on the mandrel, which were developed by Rockwell's state-of-the-art hardness tester. After the internal inspection, the sabre model 1934 was subjected to rigorous military acceptance by the appraisers. The name of the expert was etched on the ridge of the sabre firebrand and the heel of the scabbard [24]. It was the final reception, which ended the production process of the sabre as a set: sabre plus scabbard [25, p. 230].

Successful completion of the receiving operations qualified the sabre for use in the army. In order to qualify sabre for the military, it had to meet number of conditions:

- pierce the 2-mm thick metal sheet by the firebrand dropping from the height of 2 meters without damaging the blade
- cutting the 5-mm steel rod 5 times on the lead pad without damaging the blade
- pass the impact test of the ridge and blade in the teres trunk of the hard wood to check the attachment of the firebrand to the hilt
- pass the bending test, where the blade based on the wood and subjected to manual pressure several times and cannot be reversed on both sides
- the scabbard flats on two washers (at the neck and the spur), with a load of 120 kg, could not show deformation or cracks
- the force required to draw the sabre from the scabbard had to be between 5 and 10 kg [25, p. 234]

The cost of producing the sabre was 25 zł of the Ludwików factory's own costs. The sales military price was 38 zł [25, p. 236]. In addition to the battle sabres, several richly decorated gift items were also made. One of such sabres was given to: Romanian king Michal I, head of the Armaments Department, general Mieczysław Maciejowski, and Chief Executive Officer of the Ludwików Factory Otmar Kwiecinski [11, p. 82].

The 1934 model of sabre was a weapon designed for all troops and ranks in the Polish army. Towards the end of the 1930s, it was planned to extend the model 1934 to other types of weapons and services, particularly for cavalry officers (sabre 1938 model). But the forthcoming war distracted the attention of *the Armaments Department* (Departament Uzbrojenia) from issues related to armaments in side arms [2, p. 204].

5. Conclusions

Why in the twentieth-century European army was so interested in the production of already obsolete armament, which was a cavalry sabre. The defensive doctrine of the newly founded state was based on the experience of the First World War and the Polish-Soviet War of 1920. Therefore, it was envisaged that the main areas of possible fights would be extensive plains in the east of the country, where Polish troops could meet with large Red Army cavalry armed with cold steel. Beating the Soviet inroads off would be effective only through cavalry. However, the Polish cavalry in the years 1918-1939 was not large. At the beginning of World War II, it accounted for less than 10% of the Polish armed forces.

According to the defence doctrine, the role of cavalry was only to support the infantry, while horses served mainly as a transport. Its use did not provide for a charge on the tanks. Cavalry tasks included: recognition, cover of mobilization, rapid and violent strikes on the wings of the enemy, retreat to the rear to cut back roads, defence and insurance of the wings of the own army, insurance of secondary sections of the front and pursuit battles [26].

The cavalry was organized into a brigade system that were human teams of 8 to 9 thousand soldiers. Such system excluded the commissioning of independent cavalry operations. The military regulations clearly stated that the cavalry maneuverers on horseback, struggles on foot and only under exceptional circumstances charges [27], [28]. In such conditions, cavalry could not be effective in fighting on the western front in 1939. Hence, its refinement, the production of new types of sabres should be regarded as anachronism already in the thirties.

Unfortunately, the Polish headquarters followed the experience of earlier great cavalry wars too closely, instead of thinking of new forms of warfare. Polish officers were too attached to the former Polish cavalry tradition [29], [30]. This approach led to the rapid defeat of September. However, it cannot be overlooked that the model 1934 sabre has undoubtedly become the heroine of the last famous cavalry charge in battles under Mokra, Krojanty or Kalushyn [31]. Regrettably, it was also a symbol of German propaganda, showing Polish desperate charges for tanks [32].

While evaluating these side arms in isolation from its use it should be emphasized that *Ludwikówka* was the quintessence of the sabre. It was an effective, handy, yet elegant and relatively inexpensive weapon. The sabre of

1934 combined all the best experience of the world cold steels. It was a symbol of the last chivalry chord of the Polish cavalry power, but a symbol of perfection. It is a pity that it began to symbolize defeat, became a symbol of propaganda. It is horrible that for nearly 50 years of the socialist period in Poland, it was not narrated the "capitalist" history of this weapon. Luckily, in the 21st century, the sabre model 1934 was spotted by passionate people and it is beginning to symbolize the power of the Polish army. Metaphor of the most beautiful values and history of Poland.

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