

About the invention and introduction of the Pickelhaube in Prussia

by Sandy Michael Heinemann

Much has been written about the invention and introduction of the "Pickelhaube", about the reason for its spike and the origin of the nickname of the helmet, simply designated "helmet" or "leather helmet" in official German, but the narrative is still today unfortunately quite vague. What is known about it was mostly published in different editions of the "Zeitschrift für Heereskunde", a German scientific magazine for military history. Unfortunately, these publications still have large gaps. For example, it could never be clarified to whom the idea of the helmet was going back. Thus remained space for speculation and rumors, which is why I wanted to find more original sources with which the considerable knowledge gaps around the invention of the „Pickelhaube“ could be closed a little further. I really found these sources in newspaper articles from different daily- and specialist-newspapers from the middle of the 19th century, which luckily contained very detailed information on this topic. The newspaper articles extend the previous research results with a few new informations about the invention history of the spiked helmet.

The nickname "Pickelhaube" was quickly established in Germany for the new helmet, which was introduced to the Prussian army in 1842. This popular name came already up in an article dated July 22, 1841, as the newspaper „Allgemeine Militär-Zeitung No. 63/1841“ wrote about the helmet: "They are similar to the Pickelhauben from the days of knights."; and further: "What is peculiar about these new helmets in the medieval form is that they have a conical spike at the top...".¹ In later newspaper articles, the design of the spiked helmet was also compared to the "medieval headgear of foot soldiers" or to the "balaclavas of German Landsknechts". It is therefore worth emphasizing the fact that the word „Pickel“ in the German nickname did not allude to the spike on the helmet, but the name „Pickelhaube“ was a dialect for the medieval "Bacinet" (in German "Beckenhaube"). Most likely, the German nickname was a deliberate play on words.

Fig. 1 shows a Landsknecht with a helmet in a similar shape to the early Pickelhaube. Compared to Fig. 2, it's



Fig. 1 (Landsknechts at the muster - Source: Die illustrierte Welt. Blätter aus Natur und Leben, Wissenschaft und Kunst zur Unterhaltung und Belehrung für die Familie, für Alle und Jeden - Vol. 13)

guessable how these comparisons came to the mind of the journalists.

The stately appearance of a soldier was more important at the time than it is today, that's why the topic was touched on in almost all newspaper reports that I came across for researching this article. In general, the opinion about the design of the Pickelhaube was divided first², but later it was considered to be functional and stylish.³ The soldiers and military personnel around the world quickly learned to appreciate the advantages of the helmet, and so it was gradually introduced into many armies around the world.⁴

As well known, the shako has been usually worn in the Prussian army before the spiked helmet was introduced. Although this headgear was dressy, it



Fig. 2 (M42 Helmet Sideview- special thanks to kaisersbunker.com)

offered hardly any protection to the soldiers and the felt soaked up with water when it rained, which made it very uncomfortable to wear.⁵

Therefore, at the beginning of the reign of King Friedrich Wilhelm IV., consideration was given to introduce new uniforms that focused more on performance and health of the soldiers than on appearance.⁶ Another reason was certainly that the Napoleonic Wars were not that long ago and people were still afraid of another attack by France. Some newspaper articles between 1840/1841 testifies some nervousness in this regard.

That's why in mid-May 1841, two commissions for the "examination and revision of the assembly and armament system" were set up by royal cabinet order. The 1st commission was responsible for clothing and equipment, headed by a Lieutenant General von Rohr from Breslau. The 2nd commission, responsible for organizational and formation matters, was headed by Prince Friedrich of Prussia (1794-1863), the nephew of King Friedrich Wilhelm III, who died in 1840. Other members were: General von Natzmer, General von Nostitz, Graf von der Gröben, Graf von Barner, Graf von Tümping, Colonel von Erhardt (artillery), Colonel von Schack (5th Hussar Regiment), Major von Döring (from the War Ministry), Major Graf von Waldersee (Commander of the Training Infantry Battalion) and the Secret War Councilor Schnobitz.⁶

The results of these commissions included the tunic (Waffenrock), a new packing system and the spiked helmet. Last, however, was invented by Prince Friedrich of Prussia, proven by a large number of newspaper articles in which it has been written that the idea and construction of the Pickelhaube can be traced back to him. For example, the Illustrated Newspaper, issue No. 37 from March 1844, wrote:

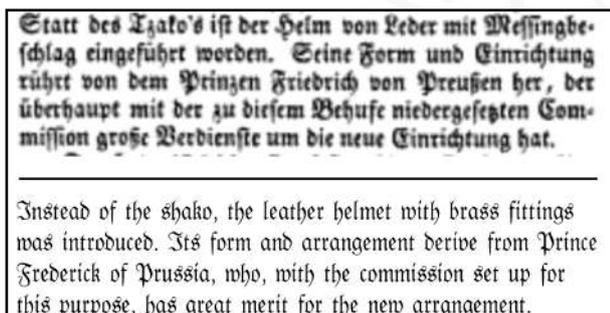


Fig. 3: Transcript from „Illustrierte Zeitung“, Vol. 2 from 1844, Page 166

Furthermore, according to the „Allgemeine-Militärzeitung“ No. 46/1841 he sent a self-designed infantry helmet to Berlin for presentation some time before the start of the commissions, which received a great deal of recognition there.⁶ He was going on to develop the helmet further between 1840/42 with Mr. Wilhelm Jäger from the „Metal-goods Factory Wilhelm Jäger“ in Elberfeld.⁷ Under his management and with a lot of his own money the Jäger-Company was able to offer the War Ministry metal helmets for 6 Thaler and 25 Groschen (see also Fig. 4 + 5)⁸, just two months after the commission started, in June 1841. The enlisted men of the Garde du Corps-Regiment were already dressed in these for testing it in July 1841.⁹

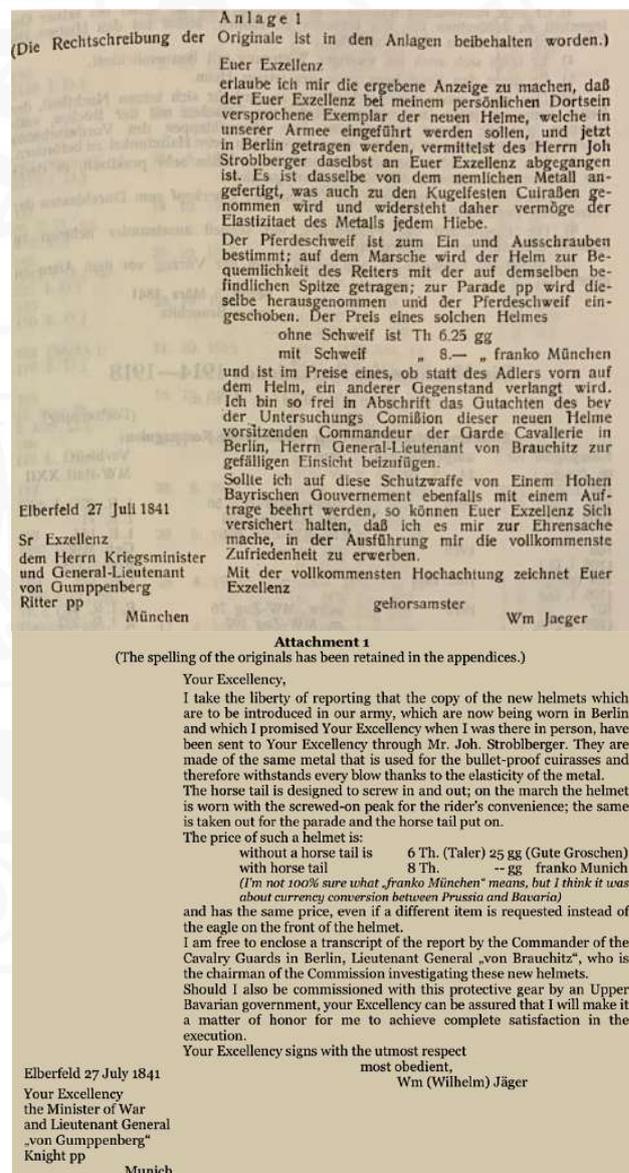


Fig. 4: Transcript of the letter from Wilhelm Jäger (source: Magazine for Army Studies no. 166, issue 6 from 1959 - „Die Bekleidung & Ausrüstung der preuß. Kürassiere von 1809-1918 - Part 3“)

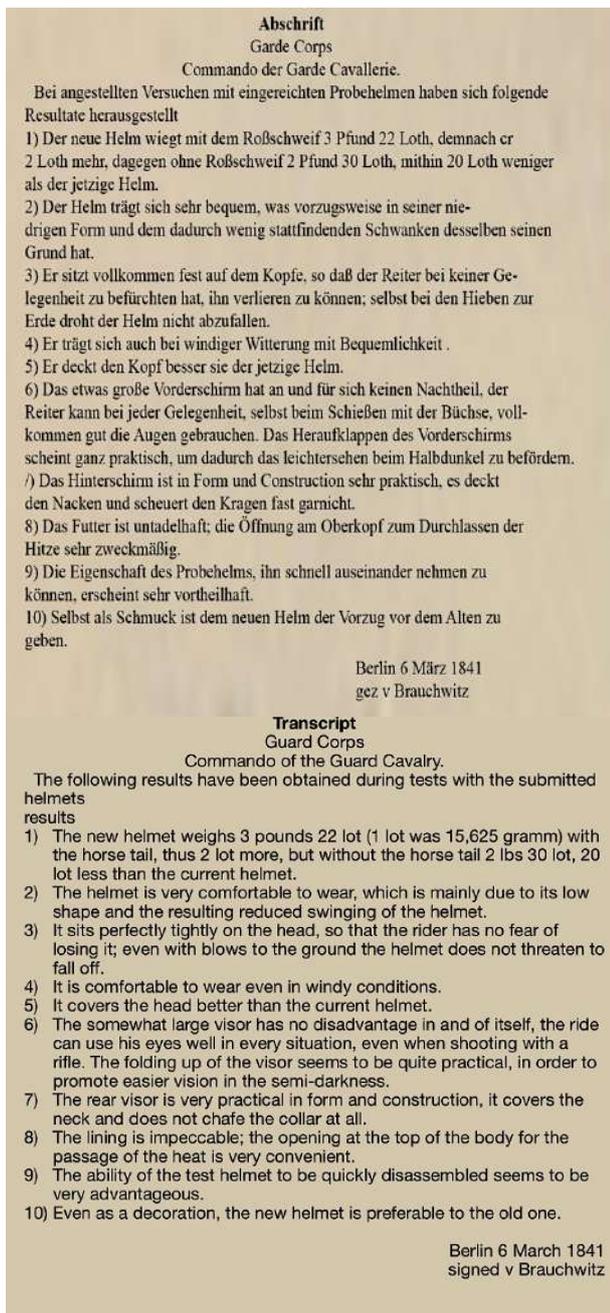


Fig. 5: Transcript of the Garde du Corps report (source: Magazine for Army Studies No. 166, Issue 6 from 1959 - „Die Bekleidung & Ausrüstung der preuß. Kürassiere von 1809-1918 - Part 3“

The suitability of the helmets was not only tested on the basis of such wearing tests, which took place in every conceivable situation and in all weathers, but stationary tests also took place. With these, the helmets were filled with straw heads and placed on man-high wooden posts. Next, strong soldiers of the Garde du Corps slashed at them with their sabers. The spike on the helmet proved particularly advantageous here, as it deflected the saber strikes and the helmet stayed in place.⁹ The previous cuirassier helmets with the crest did not survive these tests so well. The crest also ensured a high center of gravity, making the helmet was very susceptible to wind.¹⁰

The spike was probably also adapted for the leather infantry helmet due to the excellent results in the stationary test series with the saber strikes. However, because the prince sent an "infantry helmet" to Berlin⁶, it may be just as well be that he also suggested a spiked helmet of leather for the infantry from the start. However, that is only speculation.

Although the commission was in favor of the new uniform, the War Ministry initially wanted to decide against it, due to the high costs. They also had old uniforms in stock for around 400,000 marks (or for about 500.000 soldiers), which they still wanted to use up.¹¹ This didn't change as during a maneuver in Silesia in 1841 several young soldiers struggled or collapsed because of the poor equipment. And also not when a Major named „von Menschwitz“ succeeded in halving the cost of 900,000 Reichstaler for the introduction of the Pickelhauben.¹² But may be that were reasons why in August/September 1842, at the major maneuver in Euskirchen, the 1st Battalion of the 15th Infantry Regiment was employed with the new uniforms including the new infantry-helmets from Jäger company, for a major practical test. There, the new uniform and the spiked helmets were completely convincing¹³, which led to a change in royal opinion, and the king ordered to introduce the new uniform with the Pickelhauben into the Prussian army on October 23rd, 1842.⁴

Due to the success of the maneuver in Euskirchen, the decision was also made to equip all infantry regiments with the smooth leather helmets made by the Jäger-Company.⁷ So, contrary to claims that they produced metal goods only, the Jäger-Company produced spiked leather helmets in larger quantities as earlier as 1842.^{7; 13} This is again confirmed by an English article from a British military journalist, who was present at the autumn maneuvers in 1842 (Fig. 6). He also describes that the 1st Battalion of Infantry Regiment No. 15 wore the new uniform with the leather helmets conceived by Prince Frederick of Prussia and that Wilhelm Jäger from Elberfeld produced these high quality leather helmets for 11 Schillings.¹⁴

—cast aside*, and in its place a handsome, light, and convenient helmet, made of polished seasoned leather, is to be substituted, which fits close to the head, without any top-weight, has a most soldierlike appearance, is easily kept clean, weighs only two pounds; and, as economy is, in these hard times, an object to be kept in view, that wonderful man, Joseph Hume, will no doubt be exceedingly rejoiced when he is informed that, for the sum of *eleven shillings*, he may, on application to Mr. Jager, at Elberfeldt, fit himself out with this warlike head-gear, which will outlast half-a-dozen common hats, to say nothing of the effect with which that renowned statesman could, in such attire, hold forth on cheese-parings, ends of farthing dips, spun yarn and oakum, with other important points of reform relating to the Army and Navy!

Fig. 6: Extract from „The United Service Magazine and Naval and Military Journal“, Part 3 (1842), Page 517

The tests for the cuirassier helmets were particularly thorough⁹, so the cuirassiers did not receive the A.K.O. for the new helmets, which were also produced by the Jäger-Company, before February 22, 1843.¹⁵

Unfortunately, I couldn't find the cabinet order for the infantry-helmets, but I found the article shown in Fig. 7 about the competitor Harkort (Christian Harkort from Harkorten, Westph.), from whom it was sometimes assumed that he has invented and produced the first spiked helmets.¹³

P r e u ß e n .

Düsseldorf, 28. December 1842. Es ist neulich in mehreren Blättern die Rede davon gewesen, daß eine neue Erfindung des Hrn. Harkort, die Helme der Infanterie und der Dragoner aus Büffelleber anzufertigen, große Verdienste habe. Das Kriegsministerium hat indessen den Stoff nicht genügend besunden, um ihn im Allgemeinen einzuführen. Die Helme sämtlicher Infanterieregimenter sollen aus Blankleder, die der Dragoner wahrscheinlich aus Büffelleber und die der Kürassiere aus Stahl angefertigt werden. Muster aller dieser Helme sind sogar nach London an das Kriegsministerium versandt und mehrere Deutsche Bundesstaaten gedenken dem Beispiele Preußens zu folgen. Ein Bataillon des 15. Infanterieregiments ist schon bei den letzten Manövern mit solchen Helmen erschienen und diese sollen eigentlich allgemein eingeführt werden. Verfertiger derselben ist Hr. Jäger in Elberfeld, der die Muster seit 2 Jahren unter Leitung Sr. Königl. Hoh. des Prinzen Friedrich von Preußen mit bedeutenden pecuniären Opfern beigeleitet hat. (Hamb. Correspond.)

Prussia.

Düsseldorf, December 28, 1842. Recently, several newspapers reported that a new invention by Mr. Harkort, making helmets for infantry and dragoons out of buffalo leather, had great merit. The War Ministry, however, did not find the material sufficient to introduce it in general. The helmets of all infantry regiments are to be made of blank leather, those of the dragoons probably of buffalo leather, and those of the cuirassiers of steel. Samples of all these helmets have even been sent to the War Ministry in London, and several German states intend to follow Prussia's example. A battalion of the 15th Infantry Regiment has already appeared with such helmets during the last maneuvers and these are actually to be introduced generally. The manufacturer of these helmets is Mr. Jäger in Elberfeld, who has been producing the samples for two years under the direction of His Royal Highness Prince Frederick of Prussia with considerable financial sacrifices. (Hamb. Correspond.)

Fig. 7: "Allgemeine Militär-Zeitung" No. 9/1843, article: „Prussia“ from December 28, 1842

In this article it was written that the buffalo leather helmets of Harkort were not as durable as the smooth leather helmets from the Jäger-Company and therefore rejected by the War Ministry for majority use. Harkorts helmets were only found to be good for the dragoon regiments, for which he received an A.K.O on November 29, 1842.⁷

According to the same article of the Allgemeine Militär-Zeitung No. 9/1843, helmet samples of all branches of arms were also sent to the London War Office, but unfortunately, I was unable to check this (AUTHOR'S NOTE: MAYBE THERE IS STILL UNSEEN ARCHIVE MATERIAL ABOUT THE INVENTION OF THE SPIKED HELMET THERE?).

In any case, the unconfirmed legends that King Frederick William IV. of Prussia saw the Pickelhaube in Russia first or that he commissioned the military painter Hermann Stilke (1803-1863) to design a helmet¹⁶ should be obsolete, due to that large number of articles with Prince Frederick of Prussia as the inventor of the spiked helmet.⁶ As far as I could research, these rumors were not published until 1918 in the magazine "Archiv für Waffen- und Uniformkunde" No. 2/3, but the author "F. Rascher" from Frankfurt am Main guilty of evidence for these allegations.¹⁶

The Pickelhaube was an important and well-thought-out military innovation, which had the improvement of the endurance and protection of the soldier in mind, in combat or against the weather. The helmet was made of light hardened leather, was lacquered, comfortable to wear and, thanks to its shape, had a firm fit. Further, it could defy any weather. The front visor was pulled down to the level of the eyebrows, which should prevent the soldier from being blinded by the sun and also from dripping rainwater into his eyes. Similar reasons for the neck guard, which was pulled down a long way to deflect saber strikes and also prevent rainwater from dripping into the neck. A brass cross fitting was screwed onto the helmet, with light but robust arms which were intended to deflect the cavalrymen's saber strikes from above. Besides a base for the screw-on spike, the cross fitting was provided with holes for ventilating the head to protect it from overheating. In general, all brass applications should not only look chic but also strengthen the helmet with great lightness to protect the head against saber strikes of the cavalry from all sides.⁵ At the front, this protection was provided by the magnificent eagle plate and the brass visor trim on the front visor. At the back, this was provided by the neck rail, and on the sides by the with brass plates covered chinstrap, the so-called chinscale. With a closed chinstrap, the helmet, which was already well-adapted, would also sit firmly on the head when it was in motion or if hit by a saber.⁵ A large number of the requirements for a helmet just listed are also confirmed in the report by the Garde du Corps, which was drawn up for the test

helmet of the W. Jäger company in 1841 (SEE AGAIN THE TRANSCRIPTS FIG. 4 + 5).⁸ The rest of the desired properties of a soldier's helmet that I have listed come from articles in specialist journals of the time.⁵



Fig. 8: Officer's helmet with hair plume (private Collection)

At parades, many regiments always wore splendid bushes of hair or feathers on their headgear, which shouldn't be missed also on the new helmet. For this reason, the spiked helmets were provided with a screw-off brass spike that could be replaced by a hair plume funnel. The brass spike was worn for normal duties, the funnel was screwed on, by regiments authorized to do so, for parades.⁴

Perhaps this could also be the reason for the spike, as tradition and appearance had a higher priority than today. Maybe they wanted to attach a bush of hair and surely to ventilate the helmet, as this topic was often touched on at that time.⁵ Due to the reason that a hair plume funnel was only worn on parades, they had to find an alternative for normal duties, because without a hair plume or spike the helmet would not look pleased.

So there was hardly anything that wasn't thought out about this helmet. At that time it was probably the most advanced military helmet. However, weapon technology changed and protection against saber strikes became obsolete. The fashion taste also changed, but the Pickelhaube has got some very positive adjustments for my taste (FIG. 8).

It became an all-German landmark and despite the later no longer existing protection against modern weapons it has been worn with pride until the end of the German Empire.⁴

(March 26, 2021)

Sources:

1. „Allgemeine Militär-Zeitung“ No. 63/1841, Page 503, Article: "Preußen" from 22.7.1841
2. „Allgemeine Zeitung“ No. 348/1842, Page 2780, Article: "Die Uniform - Bemerkungen über die gegenwärtige Reform in der Bekleidung der Heere"
3. „Illustrierte Zeitung“ No. 37/1844, Page 166, Article: "Die neue Uniform und die großen Manöver in Preußen"
4. „Aus der Frühzeit der Pickelhaube“ (Zeitschrift für Heereskunde No. 124/1943, Author: Herbert Knötel)
5. „Preußische Wehrzeitung“ from 11.9.1853, Article: „Pickelhaube und Krempehut“
6. „Allgemeine Militär-Zeitung“ No. 46/1841, Article: "Preußen" from 24.5.1841
7. „Allgemeine Militär-Zeitung“ No. 9/1843, Page 71, Article: "Preußen" from 28.12.1842
8. „Zeitschrift für Heereskunde“ No. 166, Issue 6 from 1959 - "Die Bekleidung & Ausrüstung der preuß. Kürassiere von 1809-1918" - Part 3
9. „Zeitschrift für Heereskunde“ No. 169, Issue 3 from 1960 - "Die Bekleidung & Ausrüstung der preuß. Kürassiere von 1809-1918" - Part 4
10. „Zeitschrift für Heereskunde“ No. 164, Issue 3 from 1959 - "Die Bekleidung & Ausrüstung der preuß. Kürassiere von 1809-1918" - Part 2
11. „Allgemeine Militär-Zeitung“ No. 61/1841, Page 483, Article: "Preußen" from 7.7.1841
12. „Allgemeine Militär-Zeitung“ No. 83/1841, Page 660, Article: "Preußen" from 27.9.1841
13. Westfalen.Museum-Digital.de - City museum Hagen / Collection: [Hagen Pieces] / Pickelhaube
14. „The United Service Magazine and Naval and Military Journal“, Part 3, Page 514-520
15. „Zeitschrift für Heereskunde“ No. 175, Issue 3 from 1961 - "Die Bekleidung & Ausrüstung der preuß. Kürassiere von 1809-1918" - Part 5
16. „Archiv für Waffen- und Uniformkunde“, Issue 2/3 from 1918 - „Die preußischen Infanteriehelme“

Ad 1 - Further sources concerning the origin of the nickname „Pickelhaube“:

- „Regensburger Zeitung“ No. 182/1841, Page 7, Article: "Preußen" from 22.7.1841
- „Aus der Frühzeit der Pickelhaube“ (Zeitschrift für Heereskunde No. 124/1943, Author: Herbert Knötel)
- „Archiv für Waffen- und Uniformkunde“, Issue 2/3 1918 - „Die preußischen Infanteriehelme“
- „Neue Militär-Zeitung“ No. 28/1858, Page 217, Article: „Einige Bemerkungen über d. Bekleidung d. preuß. Infanterie“
- „Münchener Politische Zeitung“ No. 185/1841, Page 991, Article: "Preußen", from 27.7.1841
- „Bayreuther Zeitung“ No. 239/1842, Page 954, Article: „Aus dem Lager bei Euskirchen“ from 30.9.1842
- „Universal-Lexikon d. Gegenwart & Vergangenheit o. neuestes encyclopädisches Wörterbuch d. Wissenschaften, Künste & Gewerbe: Trommel - Vergrößerungswörter“ Band 32 from 1846, Page 278

Ad 2 - Further sources with negative opinions on the appearance of the Pickelhaube:

- „Nürnberger Kurier (Friedens- & Kriegs-Kurier)“ No. 265/1843 (169. Jahrgang), Article: "Berlin" from 18.9.1843
- „Fürther Tageblatt“ No. 67/1850, Page 311, Article: „Wenn es auch nicht gelingen sollte...“

Ad 3 - Further sources with positive opinions on the appearance of the Pickelhaube:

- „Preußische Wehrzeitung“ from 11.9.1853, Article: „Pickelhaube und Krempehut“
- „Neue Militär-Zeitung“ No. 28/1858, Page 217, Article: „Einige Bemerkungen über d. Bekleidung d. preuß. Infanterie“
- „Allgemeine Militär-Zeitung“ No. 46/1841, Article: "Preußen" from 24.5.1841
- „Didaskalia“ from 28.12.1842, Article: "Das Lager bei Grimlinghausen"

Ad 4 - Further sources on the introduction of the Pickelhaube in foreign armies:

- „Regensburger Zeitung“ No. 182/1841(2), Page 7, Article: "Preußen" from 22.7.1841
- „Universal-Lexikon d. Gegenwart & Vergangenheit o. neuestes encyclopädisches Wörterbuch d. Wissenschaften, Künste & Gewerbe: Trommel - Vergrößerungswörter“ Band 32 from 1846, Page 278
- „Archiv für Waffen- und Uniformkunde“, Issue 2/3 1918 - „Die preußischen Infanteriehelme“

Ad 5 - Further sources on the negative nature of felt hats in the rain and requirement for military helmets at the time:

- „Archiv für Waffen- und Uniformkunde“, Issue 2/3 1918 - „Die preußischen Infanteriehelme“
- „Allgemeine Militär-Zeitung“ No. 61/1841, Page 483, Article: "Preußen" from 7.7.1841
- „Zeitschrift für Heereskunde“ No. 164, Issue 3 von 1959 - "Die Bekleidung & Ausrüstung der preuß. Kürassiere from 1809-1918" - Teil 2
- „Neue Militär-Zeitung“ No. 28/1858, Page 217, Article: „Einige Bemerkungen über d. Bekleidung d. preuß. Infanterie“
- „Universal-Lexikon d. Gegenwart & Vergangenheit o. neuestes encyclopädisches Wörterbuch d. Wissenschaften, Künste & Gewerbe: Trommel - Vergrößerungswörter“ Band 32 from 1846, Page 278

Ad 6 - Further sources that soldier performance was the focus in the development of the helmet:

- „Zeitschrift für Heereskunde“ No. 164, Issue 3 from 1959 - "Die Bekleidung & Ausrüstung der preuß. Kürassiere von 1809-1918" - Teil 2
- „Neue Militär-Zeitung“ No. 28/1858, Page 217, Article: „Einige Bemerkungen über d. Bekleidung d. preuß. Infanterie“

Ad 7 - Further sources with evidence on the commissions to find the new uniforms & wearing trials of IR15 at the maneuver in Euskirchen:

- „Allgemeine Militär-Zeitung“ No. 40/1841, Page 316, Article: "Preußen" from 2.5.1841
- „Allgemeine Militär-Zeitung“ No. 61/1841, Page 483, Article: "Preußen" from 7.7.1841
- „Allgemeine Militär-Zeitung“ No. 83/1841, Page 660, Article: "Preußen" from 27.9.1841
- „Fränkischer Merkur“ No. 180/1841, Page 71, Article: "Preußen" from 13.6.1841
- „Illustrierte Zeitung“ No. 37/1844(2), Page 166, Article: "Die neue Uniform und die großen Manöver in Preußen"
- „Allgemeine Militär-Zeitung“ No. 9/1843, Page 71, Article: "Preußen" from 28.12.1842
- „Didaskalia“ from 28.12.1842, Article: "Das Lager bei Grimlinghausen"
- „Das Königsmanöver im Jahre 1842 - Ein Helm erzählt seine Geschichte“ (Zeitschrift für Heereskunde No. 456/2015, Author: Ulrich Schiers)
- „Das königlich preussische 15. Infanterie-Regiment Prinz Friedrich der Niederlande ... in den Kriegsjahren 1813, 14 und 15“, Page 172

Ad 8 - Further sources that Prince Frederick of Prussia invented the Pickelhaube:

- „Allgemeine Militär-Zeitung“ No. 63/1841, Page 503, Article: "Preußen" from 22.7.1841
- „Allgemeine Militär-Zeitung“ No. 46/1841, Article: "Preußen" from 24.5.1841
- „Regensburger Zeitung“ No. 182/1841(2), Page 7, Article: "Preußen" from 22.7.1841
- „Münchener Politische Zeitung“ No. 185/1841, Page 991, Article: "Preußen", from 27.7.1841
- „Illustrierte Zeitung“ No. 37/1844(2), Page 166, Article: "Die neue Uniform und die großen Manöver in Preußen"
- „Allgemeine Militär-Zeitung“ No. 9/1843, Page 71, Article: "Preußen" from 28.12.1842
- „Didaskalia“ from 28.12.1842, Article: "Das Lager bei Grimlinghausen"
- „Fränkischer Merkur“ No. 180/1841, Page 71, Article: "Preußen" from 13.6.1841
- „Das Königsmanöver im Jahre 1842 - Ein Helm erzählt seine Geschichte“ (Zeitschrift für Heereskunde No. 456/2015, Author: Ulrich Schiers)

Ad 9: Further sources that the Garde du Corps were equipped with new helmets on a trial basis:

- „Allgemeine Militär-Zeitung“ No. 63/1841, Page 503, Article: "Preußen" from 22.7.1841
- „Regensburger Zeitung“ No. 182/1841(2), Page 7, Article: "Preußen" from 22.7.1841
- „Fränkischer Merkur“ No. 180/1841, Page 71, Article: "Preußen" from 13.6.1841

Ad 11 - Further sources the introduction of the new uniforms was delayed:

- „Allgemeine Militär-Zeitung“ No. 46/1841, Article: "Preußen" from 24.5.1841
- „Allgemeine Militär-Zeitung“ No. 67/1841, Page 531, Article: "Preußen" from 26.7.1841