

ADMINISTRATIVE AND LEGAL CHARACTERISTICS OF THE ESTABLISHMENT AND DEVELOPMENT OF THE ORGANIZATIONAL AND LEGAL PRINCIPLES OF THE USE OF INDIVIDUAL ARMOR PROTECTION: THE NEW KINGDOM PERIOD AND THE MIDDLE AGES

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Annotation. *In the article, the author carried out a thorough administrative and legal characterization of the formation and development of the organizational and legal foundations of the use of individual armor protection in such periods as the period of the New Kingdom and the Middle Ages. For the first time, the author conducted a study of the formation and development of the organizational and legal foundations of the use of individual armor protection of various periods dating back to ancient times. With the development of a wide range of armor, weapons also underwent evolution, which made the means of personal protection less effective. That is why they were forced to change their qualities in the process of the evolution of weapons production for their effectiveness. In all periods and in those distant prehistoric times, people tried in every way to protect their body from damage by the enemy. Accordingly, in the studied period of the New Kingdom, heavy armor was used, which was defined as rare and associated with attributes of power and prestige. An important part of the Egyptian royal historiography was determined by the paraphernalia on which the pharaoh was depicted, rushing on a fast-moving chariot, and he at one time struck a crowd of enemies with a bow. Also, to protect the legs, leggings were used as means of personal protection, and to protect the hands, respectively, a hasty glove. This period of development of personal protective equipment was also characterized by the fact that animal skin was used as the first armor to protect the body. Animal skins were wrapped by warriors around the body or simply draped over the shoulders and hung behind, covering the back. Also used was a bronze bell-shaped carapace consisting of front and back plates, with a simple relief depicting the anatomy of the upper human torso. The two plates were connected to each other with the help of the corresponding fasteners, which are located on the sides and on the shoulders. The bell-shaped carapace gradually went out of circulation as it was replaced by the canvas carapace. Along with this shell, there was also an iron shell. Rich Romans wore chain mail, which was apparently also used by some Greeks at the time. The period of formation and development of personal protective equipment, namely the period of the Middle Ages, is characterized by the following features: it is considered “a great period in the history of the development of knightly protective weapons”; three types of soft armor were used, namely: 1) made of fabric (for example, linen) or leather lined with wool or wool; 2) chain mail (used in Europe since the 5th century BC); 3) from metal plates (more or less large and rigid); pleated paper was used for the production of personal protective equipment at that time.*

Key words: *personal protective equipment; paper, chain mail, armor, soft armor; iron armor, pleated paper.*

1. Introduction

In different historical times and in the process of any military conflicts, people looked for the greatest opportunity to protect their bodies as best as possible from mortal wounds and various types of injuries. Correspondingly, with the development of a wide range of armor, weapons also underwent evolution,

which made the means of personal protection less effective. That is why they were forced to change their qualities in the process of the evolution of weapons production for their effectiveness. Even in those distant prehistoric times, people tried in every way to protect their bodies from damage by the enemy.

This issue has not been investigated at the scientific level by domestic researchers, and there is no single comprehensive study that would thoroughly characterize the formation and development of the organizational and legal basis for the use of individual armor protection in Ukraine.

2. Analysis of scientific publications

Питання щодо дослідження становлення та розвитку засобів індивідуального бронезахисту були предметом дослідження зарубіжних дослідників таких як Л. Адкінс, Р. Адкінс, К. Блер, П. Джеймс, Д. Едж, Н. Торп, Д. Паддок, Д. Ніколь тощо. Частково дану проблематику вивчали також такі вітчизняні вчені як В. Авер'янова, І. Бухтіярова, В. Галунько, Т. Коломоєць, В. Колпаков, О. Кузьменко, Р. Сербин, О. Стрельченко та ін. Щодо питання становлення та розвитку організаційно-правових засад використання засобів індивідуального бронезахисту науковцями не достатньо досліджено. Відповідно назріла необхідність у дослідженні цієї проблематики.

3. The aim of the work

Issues related to the study of the formation and development of individual armor protection were the subject of research by foreign researchers such as L. Adkins, R. Adkins, K. Blair, P. James, D. Edge, N. Thorpe, D. Paddock, D. Nicol, etc. In part, this issue was also studied by such domestic scientists as V. Aver'yanova, I. Bukhtiyarova, V. Galunko, T. Kolomoets, V. Kolpakov, O. Kuzmenko, R. Serbyn, O. Strelchenko, and others. Regarding the issue of the formation and development of the organizational and legal basis for the use of individual armor protection, scientists have not sufficiently researched it. Accordingly, the need to study this issue has come.

4. Review and discussion

The methodological basis of the study is the use of historical, comparative, empirical and statistical methods of scientific research, as a result of which it is necessary to note that in the period of the New Kingdom, with the strengthening of means of defeating people, such as composite bows and chariots, the tradition of wearing heavy armor came to Egypt from the Middle East. Their earliest armor was most often war trophies or tribute received from their neighbors. That is why these armors were defined as rare and associated with attributes of power and prestige. An important part of the Egyptian royal historiography was determined by the paraphernalia on which the pharaoh was depicted, rushing on a fast-moving chariot, and he at one time struck a crowd of enemies with a bow. With the increase in the number of armors, besides the pharaoh, other persons, in particular warriors, were able to wear them.

It is important to note that in the Middle East in Mesopotamia and Syria at the end of the 3rd and the beginning of the 2nd millennium BC. the first heavy means of individual protection of the body appeared, which, over time, became widespread in other neighboring regions. This is due to the creation and spread of chariots and the emergence of a new, much more mobile battle tactic, which was characterized by corresponding changes in military affairs.

In this period, archers fighting on chariots came to the fore, who, thanks to their mobility, could conduct reconnaissance and act on the enemy's communications, fire at his infantry formation from a safe distance, pursue those running, and also engage in firefights with the enemy's chariot archers. The use of protective armor allowed the warrior to free his hands to draw a complex bow, and also provided him with good protection from enemy arrows and darts.

In ancient Greece, real men were always warriors. Accordingly, everyone had personal protective equipment. Antiquity did not yet know the armor that appeared in medieval Europe, which had the whole body encased in sheet metal. But armor still existed and exists in all eras.



A means of personal protection in ancient Greece consisted of a bronze carapace and a cape, which was formed from three articulated bronze plates in front and three in the back. Body protection was complemented by special neck armor and hinged shoulder plates. The personal protective equipment itself was not heavy from the outside, but it gained weight due to a rather heavy padding. It was in such a heavy means of personal protection that the warrior fell, and, accordingly, it was quite problematic for him to get up from the ground. The head was protected by a composite helmet with bronze cheekpieces.

Also, to protect the legs, leggings were used as means of personal protection, and to protect the hands, respectively, a hasty glove.

This period of development of personal protective equipment was also characterized by the fact that animal skin was used as the first armor to protect the body. Animal skins were wrapped by warriors around the body or simply draped over the shoulders and hung behind, covering the back. This is how the mythical Hercules was dressed, or, for example, the Germanic tribes that attacked the Roman Empire even before the new era. Due to the barbaric tactics of the introduction of combat, an important moment of the protection of warriors in ancient times was considered to protect his back, and not his chest. Since it was quite a shameful act for the enemies to see the enemy's back, which was quite easy to hit without getting repulsed, in contrast to directing blows to the chest, which would be easily deflected.

It is also possible to explain the fact that it is necessary to protect the back with armor, it could also be explained by the fact that the barbarians did not keep order well and that is why the battle was chaotic - the battle did not boil down to confrontation "line on line", which was the formation of the Romans, but to a disorderly clash of the masses warriors, and it was possible to get backstabbed by another warrior, not just the one opposite. Quite often, leather personal protective equipment in the form of leather armor at that time was reinforced with bronze plates.

Also in this period, namely in the 8th century BC. used a bronze bell-shaped carapace consisting of front and back plates, with a simple relief that reflected the anatomy of the upper part of the human torso. The two plates were connected to each other with the help of the corresponding fasteners, which are located on the sides and on the shoulders. A semicircular plate - a mitra ("mitra") could be used with this type of armor, which hung from the belt and protected the stomach.

In the second half of the 6th century B.C. the bronze bell-shaped carapace gradually went out of circulation as it was supplanted by the canvas carapace. It should be noted that bronze armor was still partially used, but it gradually evolved into a muscular armor. There were two types of muscle armor - a short one that ended at the waist, and an elongated one that covered the stomach. The muscle-type armor repeated the contours of the muscles of the body. It consisted of front and back plates, usually connected by fasteners on the sides and sometimes on the shoulders.

In the IV century BC an elongated version of the muscle carapace was adapted for use by horsemen. Shells of the analyzed type were used until the end of the Roman period. According to researchers, canvas shells were used from the Mycenaean period. They are mentioned in Homer's Iliad, but they did not become standard armor for hoplites until the end of the 6th century BC. [1].

The canvas armor was made by gluing together many layers of canvas, resulting in a rigid tank top about 5 mm thick. It revolved around the body and fastened on the left side. Another part of the shell protected the shoulders. Below the waist, the shell was cut into vertical strips for ease of movement. In order to cover the gaps, a second layer, cut into the same strips - pteryges ("pteryges") was glued under the first layer. Canvas armor was lighter and cheaper than bronze; at the same time, they were often strengthened with scales or plates. A similar type of armor remained in use until the spread of chain mail in the III century BC. [2].

There was also such a variety of personal protective equipment at that time as iron armor.

The iron breastplate discovered in the tomb of Philip II at Vergina is made according to the same model as the cloth armour. Armors made of bronze and canvas continued to be used in the Hellenistic period, but, judging by sculptures and paintings, their varieties were much more numerous than those of canvas.

Quilted canvas shells also began to appear in the studied period. Usually, cloth armor is depicted with sheathed scales or overlapping rectangular (scaly) plates.

According to the mention of Polybius, in the II century BC. wealthy Romans wore chain mail, which was apparently also used by some Greeks at the time.

The next period to characterize the development of personal protective equipment is the Middle Ages.

The famous British historian K. Blair considered it possible to call the era from 1410 to 1500 “a great period in the history of the development of knightly protective weapons”, because, in his opinion, high-quality armor was produced even later, but never again did their manufacturers combine such of high skill with such a fine understanding of all the advantages and disadvantages of the material with which they now mostly had to work. Decorations in these armors played a secondary role, and the main attention was paid to the perfection of lines and forms, due to which the human figures dressed in them quite rightly began to be called “steel sculptures” [3].

Historians such as D. Edge and D. Paddock noted that it was the introduction of white armor that put an end to the “international period” in the development of armor, and that in Europe by the middle of the 15th century. two centers (and, accordingly, two schools) were formed for the production of all-metal armor: one – in Northern Italy, in Milan, the other – in Northern Germany, in the Augsburg area. In addition, alongside them, there were many local productions oriented to one or another of these centers, which led to the appearance of many hybrid, mixed forms, and also contributed to their rapid spread within Western Europe [3].

D. Nicole in the book “The French Army in the Hundred Years’ War” cites an excerpt from the work of the anonymous author “Military costumes of the French in 1446”, which describes such equipment. “First of all... preparing for battle, they dressed in full white armor. Briefly speaking, they consisted of cuirass, shoulder pads, large bracers, leg armor, battle gauntlets, a helmet with a visor and a small chin guard that covered only the chin. Each warrior was armed with a spear and a long light sword, a sharp dagger hung to the left of the saddle, and a mace” [3]. As it becomes noticeable, this period [4] is characterized by a significant development and variety of means of personal protection, which were constantly improved with the development and strengthening of the elements of damage of remote weapons.

Historian K. Blair reduced all the variety of means of individual protection of that time to three classification categories: 1) soft armor: made of fabric (for example, made of linen, like Alexander the Great) or leather, lined with cotton wool or wool; 2) chain mail (used in Europe since the 5th century BC); 3) from metal plates (more or less large and rigid). All three types were already known in Antiquity. The last type of armor became widespread and flourished and reached its perfection in medieval Europe during the era of chivalry (XIII–XVI centuries). Before that, chain mail prevailed, which is relatively cheap and convenient, but with the development of weapons and tactics, they were already inferior to plate ones, because they were easier to penetrate with arrows of long bows, crossbow bolts and spears [3].

Along with the above-mentioned armor, in ancient China, paper was used for the production of personal protective equipment at that time. For example, in the IX century. N. e. Governor Su Shang of Hotun, Shaanxi Province, contained a regular army of 1,000 soldiers dressed in weapons made of thick pleated paper [5]. These armors could protect against being hit by arrows at a right angle. Such armor became common both on land and at sea. With the further development and improvement of the shape of the tips and the increase in the penetrating power of crossbows, the effectiveness of paper means of personal protection was leveled off, as a result of which they switched to the production of armor from stronger materials.

Active production of personal protective equipment of that time with the use of iron elements began.

An interesting fact is that in England the superiority of continental gunsmiths was not considered a challenge at that time. Moreover, he was not even noticed, since both noble lords and petty gentry had the habit of ordering armor for themselves abroad. One of the examples of this type of arms importation is the tombstone statue of Sir Richard Beauchamp, Earl of Warwick, dated 1453, on which the earl himself is shown in Italian armor of the “latest pattern” [3; 6].



The decisive rejection of mail armor, which acted as a connecting link between individual plates, gave rise to an active search for new forms of protective equipment, which fell mainly on the first half of the 15th century. In addition to bacinet helmets, there was also such a type of helmet as a helmet-sale, helmet-sallet or helmet-salad, which became especially popular among German gunsmiths [3; 7].

5. Conclusions

The period of the New Kingdom was characterized by the following features regarding the formation and development of personal protective equipment, namely: heavy armor was used, which was determined to be rare and associated with attributes of power and prestige; a significant part of the Egyptian royal historiography was determined by the paraphernalia on which the pharaoh was depicted rushing on a fast-moving chariot, and he at one time struck a crowd of enemies with a bow; for the purpose of protecting the legs, leggings were used as means of personal protection, and for the protection of the hands, respectively, a quick-release glove; animal skin was used as the first armor to protect the body. The skin of animals was wrapped by warriors around the body or simply draped over the shoulders and hung behind, covering the back; a bronze bell-shaped carapace was used, consisting of front and back plates, with a simple relief that reflected the anatomy of the upper part of the human torso; the displacement of the bell-shaped carapace by the canvas carapace took place; iron armor was also used; the use of chain mail, which was quite expensive, by rich Romans and some Greeks. Also, the period of formation and development of personal protective equipment, namely the period of the Middle Ages, is characterized by the following features: it is defined by "a great period in the history of the development of knightly protective weapons"; three types of soft armor were used, namely: 1) made of fabric (for example, linen) or leather lined with wool or wool;

2) chain mail (used in Europe since the 5th century BC); 3) from metal plates (more or less large and rigid); pleated paper was used for the production of personal protective equipment at that time.

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