

HORSE ARMOUR.

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In bringing to your notice the following notes on horse armour I am not for a moment claiming to give you anything more than a collection of memoranda on the subject. Notices of horse armour are widely scattered through old wills, inventories, chronicles, and memoirs, but it is rather a long business looking up all that has been noted of this class of defence. Then again the horse armour figuring as it does not only in war but also in the tilt yard, has been somewhat confused; and not only those practical occasions for its use, but the trapper of textile material has got mixed up by many with the defensive bard. The textile trapper bears the same relation to the bard as does the surcoat to the armour of the man. It may at one time have been of service to protect from the weather or the view of the enemy, the stouter protection beneath it, or it may have been from early times a vehicle for the display of the pride of the wearer, by the richness of its material or the ornamentation lavished on it, or both. The floating drapery of the horse trapper without something beneath it could be of no practical use as a defence, and in fact one would suppose it must have been a hindrance to the horse's free movements if not sometimes a source of danger, just as the long surcoat which contributed so much to the death of that fine soldier Sir John Chandos. When the rich trapper and its owner had finished their military career the trapper was sometimes given or bequeathed to a church, and as an ornament for the altar or some such purpose began a new existence. Sometimes the order of things was reversed as when at the sack of Rome in the sixteenth century, rich hangings from the churches were turned into horse trappings by the fierce conquerors.

I do not propose to speak of the mailed horse of the early centuries as we see him represented on Trajan's column and other places, but merely to consider the defensive armour for the horse as used from about the thirteenth century to the end of the sixteenth. This seems a short portion of the period belonging to armour, but armour for the man did not so very long survive that for the horse. In both cases, to the tilt yard probably belong the finest examples of armour, and both man and horse would find that their power of offence was much limited by artificial modes of defence.

I propose to briefly note documentary illustrations of the subject, and equally briefly to mention some of the surviving examples of horse armour. A small comparative list of the names of the different portions of the defence in different languages may be of use to the student just as the note of armour now existing may assist the artist, but it would be desirable that in pictorial representations of this class of armour, artists would clearly distinguish between what was worn in the field and what was worn in the tilt yard. In illuminated MSS. no doubt more armour both for man and horse is seen than it was ever the custom to wear. It must be remembered that there were two reasons against much armour being worn by man or horse, cost and convenience. No armour was cheap, and even if it were to be had for nothing, as after a Cressy or Agincourt, the human or equine ability to wear much for any but short distances would prove serious drawbacks.

We must first note the different portions of which the horse armour might consist, and these of course were not always all worn or mentioned. Commencing with the horse's head, the face was protected by a chamfron (shaffron). (Pl. I, from *L'Art Ornamental*.)

This might be of one piece or of two fastened together by turning pins so that the lower part might if necessary be detached. The upper portion had small attached pieces for the protection of the ears, and in some highly ornamented armour, as for instance in some at Madrid, the ear defences take the form of horns. The eyes also were in some cases defended by pierced or trellised pieces, and in some varieties of the German joust the eye



CHAMFRON: HORSE ARMOUR MADE FOR THE ELECTOR
CHRISTIAN II. IN 1606. (DRESDEN.)

(From *L'Art Ornamental*.)

coverings were closed so that the horse could not see at all. To some chamfrons we find cheek pieces rivetted so that the sides, as well as the front, of the head, were protected. In the centre of what we may call the forehead was often placed a small escutcheon of arms, and sometimes standing out from this would be a spike some 4 to 6 inches long. Some chamfrons have also a plume pipe in which to set a plume of feathers, though in some cases the plume or top-net, as it was then called, sprang from a small plate intermediate between the chamfron and the crinet.

In Spanish, *Testera* or *Testinia* was the word for the shaffron. The cheek pieces are called *faldas laterales*. Count Valencia de Don Juan calls the shaffron with a very convex profile *à perfil acarnerado* or sheep-like profile. The *testera* we may take in Spanish descriptions to include the small plate connecting the shaffron and crinet.

Angelucci says that the difference between the *frontale* and the *testiera* was that the former only covered the front of the horse's head while the latter protected the nostrils and the cheeks.

At Turin there are several of both kinds, and also oriental *testiere* formed as usual of a centre plate with side pieces attached by chain mail.

Below the chamfron was sometimes worn a muzzle, not necessarily to prevent the horse from biting, but as a defence and ornament. Of these muzzles there are in various collections many examples.¹

¹ One in the Tower of London of pierced steel with the letters IWDZBMGDHG and figures of the imperial eagle and a fleur-de-lis, bears the date 1572.

Another of probably about the same date and at Ilam Hall, Derbyshire, is figured in Scott's *British Army*.

In the Victoria and Albert Museum are two examples, one bearing the date 1604 and figured at p. 61 of the *South Kensington Handbook on Iron Work*.

At Paris there are three, one of which bears the date 1567, the imperial eagle and the name Hans Schreir.

At Brussels are two muzzles of German make, one of pierced and graven brass dated 1578 and the letters ISDGZDADE and WDTDSGLENI, the other of blackened iron with the

inscription *Wir dancken und loben alzeit Got.*

At Turin are two examples, one with the letters H. GS. SB. Z and the date? ISLX. The other, dated 1573, has the inscription CHIACHIDA GOUNDNA CHT with figures of man and animals. Both these examples, like those at Paris and four muzzles in the Wallace collection, have the figure of a small lizard which the late Angelo Angelucci considered was due to a German superstition common in the middle ages. He also considered that these muzzles were more for ornament than use.

In the Madrid armoury the muzzle *bozal* does not appear.

At Vienna are two muzzles, one with the imperial eagle and the date 1593, the other with 1609.

Of chamfrons in the Tower collection there are four which deserve notice as works of art.

Nos. 17 and 18, chased and parcel gilt, of the time of Henry VIII.

No. 20, of the armour of George, Earl of Cumberland, *temp. Elizabeth.*

The chamfron of the Leicester suit is all that remains of the bard belonging to that rich suit, if indeed there were any other parts. It is interesting as being of the period between 1566, when the Earl of Leicester received the Order of St. Michael, and 1588, the date of his death. Like the man's armour it displays the ragged staff marked in every instance with the crescent of cadency, he being the second son of his father. On the centre of the chamfron is a rather rude *repoussé* figure of the bear and ragged staff, and from this starts a spirally fluted spike. The bear and the spike appear to be of later and inferior work to the rest of the chamfron, and are attached to it, not part of it.

The chamfron is seen on the seals of—

1361. Louis de Chatillon, Comte de Blois;

1404. Pierre de Navarre, Comte de Mortain;

1409. Louis dauphin de Viennois, with pierced or trellised eye guards.

In 1449 the Comte de St. Pol at the siege of Harfleur had a chamfron worth 30,000 *écus*, but the Comte de Dunois at his entry into Bayonne in 1451 had one valued at 15,000 gold crowns.

1278. 38 *capita corii de similitudine capitum equorum pro uno 2s.* Windsor tournaments.

1386. Chanfrein lined with cloth stuffed with cotton, outside “*garni de maille de haubergerie,*” attached to “*les crains dudit cheval o tresses de chanvre.*” Lobineau's *Ducs de Bretaigne.*

1446. Ollivier de la Marche mentions silver chamfrons with long horns spirally twisted with gold and silver.

1492. A son of Ferdinand of Arragon, King of Naples, had a chamfron valued at 100 million ducats.

Next to the chamfron we may take the crinet for the defence of the neck. Meyrick and others absurdly called this the manefer; confusing it with the main de fer or bridle gauntlet. This part of the armour was probably



PEYTRAL AND CRUPPER : HORSE ARMOUR MADE FOR THE ELECTOR
CHRISTIAN II. IN 1606. (DRESDEN.)

(From *L'Art Ornamental*.)

in the *cuir bouilli* times made of one piece of leather moulded to cover the neck, but in the metal days we generally find it composed of some nine to twelve arches, which allowed for the play of the horse's neck. The top arch was connected with the small triangular piece which was in its turn connected with the top of the chamfron. The late Herr Boheim in speaking of the crinet says that the last, that is, the lowest arch, is always fastened to the saddle. He further mentions that the crinet was in German called *Halsstück* or *Kanz*, and when the throat also was defended *Ganzer Kanz* was the term used. The throat defence does not appear to have been common, and there is none on the Tower examples, but it is seen in some of the Vienna and Madrid suits. In Spanish the crinet has by the Conde de Clonard been called *Capizana*, and he claimed to have met the term in some eleventh century documents, but Count Valencia de Don Juan, the present Director of the Armeria at Madrid, says that the word is not to be found in any dictionaries nor in sixteenth century inventories. Belleval, in his *Costume militaire française en 1446*, published in 1866, uses the word *cervicale*; but Gay in the *Glossaire Archéologique*, remarks that he can find no ancient authority for the word.

According to Count Valencia, *Cuello* is the term for the throat defence.

We now come to the peytral, the fore part of the body armour or bard or barbe, for it is called by both these terms. (Pl. II, from *L'Art Ornamental*.)

This portion of the armour defends the horse's breast, and is generally in three portions, a central one and hinged to each side of it side pieces protecting the shoulders.

In some illuminations and drawings hinges are shown down the medial line of the breastpiece, but no examples thus hinged have been met with. The peytral was supported by straps from the saddle bow, and perhaps when there was a throat defence this last was attached to the peytral at its lower part.

French authors have discriminated between the peytrals “*en tonne*” and “*à charnière*.”

On the peytral of many metal and other bards of rigid

material, may be noticed two round protuberances, one on each shoulder. These are called in Spanish *pezoneras*; this word means a breast pump or breast glass. In French they are called *bossoirs*. In German the word used by Boheim is *streifbuckel*, which may be translated as glancing knop. There seems to be no English word for these bosses, and in the two fine bards in the Tower they are merely *repousse* bosses about 12 inches in diameter and about 3 inches in relief. In the bard of Charles V. at Madrid and with the suit known as El de Valladolid, A 37, these pezoneras take the form of lions' masks, and are of separate pieces of metal attached at their centres to the bard, but having a slight amount of movement circumferentially toward the rear and an internal spring arrangement which brings them back to their normal position when the pressure (as of a lance stroke) is removed. The object of this arrangement of course is to prevent the lance head biting on the bard, and the German term *streifbuckel* well describes this. The Spanish term merely relates to the flattened hemispherical shape. Another bard (I think at Dresden) also has these movable bosses. On the bard of the suit of Christian I. 1560–1591, E 6a of the Dresden catalogue, besides the bosses on the peytral, there are two on the crupper. The four are engraved with the arms of Saxony and the initial letters of the Saxon kurfurst's motto *F[ide] S[ed] V[ide.]* The armour is supposed to have been made in 1588 by Anton Peffenhauser of Augsburg.

Hanging from the saddle on either side were the flanchers, generally pretty flat pieces of metal, sometimes with slots in them for the stirrup leathers to pass through. The front margin of each flancher was coterminous with the margin of the peytral on each side, thus leaving no gap in the defence of the horse's body. So also the hinder margins coincided with the front margins of the crupper. (Pl. III, from *L'Art Ornamental*.)

The horse's body behind the saddle was protected by the crupper (Pl. II). This consisted of various pieces of plate bolted together, namely, the top piece, which was often moulded, so as to allow of the free action of the horse's hind legs up in the haunch. Running along the centre



FLANCHERS : HORSE ARMOUR MADE FOR THE ELECTOR
CHRISTIAN II. IN 1606. (DRESDEN.)

(From *L'Art Ornamental.*)

of the back was a piece of metal at first flat but becoming arched as it reached the tail, and often finished in a grotesque shape as the head of a dragon or of a dolphin. At the Rotunda, Woolwich, is a very fine example of this class of finial, and another, formerly in the Meyrick, is now in the Wallace collection. Fastened to the upper crupper on either side were plates or groups of plates which protected the flanks of the horse down to about 6 inches below the belly. These plates were connected behind, by a piece beneath the tail, thus enclosing the body of the horse. Sometimes we find these plates or groups of plates descending vertically, at other times they are dished out at the lower part, thus conforming to the peytral.

We have now mentioned all the parts of the horse armour as seen in European museums and armouries. And a few historical notices of horse armour may be of interest.

In the painted chamber at Westminster the wall paintings, now destroyed, but whose designs are preserved in the drawings by Stothard in *Vetusta Monumenta*, show two examples of the mail trapper. These paintings, it is supposed, were executed in the 21st Henry III. 1236 and 1237. The horse is completely covered from head to tail, and there is no textile trapper over the chain mail.

In England the statute of 27 Edward I. 1298–1299 mentions the “*chival covert*.” Of course in pictures where flowing draperies are worn by the horses there may or may not have been mail trappers underneath.

Philip the Fair in 1303 ordered that all holders of estates of 500 livres rental should furnish among other things “*un cheval de cinquante livres tournois et couvert de couvertures de fer ou de couverture pourpointe*.” If “*chevaux couverts*” may be taken to mean barded horses, then according to Rigord this class of defence was in use as early as the battle of Bovines 1214.

In 1311 Sir John le Vavasour in his will bequeaths “*unum par de treppes*,” and about the same date Sir John Marmaduke also bequeaths two pair. It is curious that in English as well as in foreign documents we find the trappers mentioned almost always as a pair. By this we must understand not a longitudinal division of the

defence but the portions respectively in front of and behind the saddle.

In Louis Hutin's inventory, 1316, we find “*une couverture de jazeran de fer. item une couverture de mailles rondes demy cloées;*” “*une testiere de haute clouère de maille ronde. Item ij chanfreins dorez et un de cuir.*”

1319–1322. Will of Humphrey de Bohun, Earl of Hereford and Essex. 1 *corset de fer.* 1 *couverture pur 1 cheval des armes de Hereford.*

1322. Inventory of Roger Mortimer in Wigmore Castle mentions:—*V paribus de chanfrenis pro equis ad arma cum quinque paribus coopertorium de frett', cum flaunceris et piceris de corio. ij paribus de treppes. xi paribus coopertorium ferr. pro equis et ij mantell ferr.*

In July, 1338, £6 13s. 4d. was paid to Gerard de Tourney Heaumer of Edward III. “*p' le reclouer et fourbir et garnisser de une couvert' de plate p' chival delivrez en la Gard du Roi à Arewell* (Orwell, Suffolk).

In the Louterell Psalter executed about 1340 is a good example of the armored trapper of that date. The chamfron appears to be of some rigid material, but there is no sign of a chain-mail trapper beneath the textile.

John de Warren, Earl of Surrey, in his will proved July, 1347, bequeathed to Robert de Holland with other armour “*le picer de quir*” for his destrier; to Otes de Holland he left “*les couverturs burnutz de plate qui sount pour mon destrier.*” Here we have *cuir bouilly* horse armour at the same date as metal defences. The earl also bequeaths to his son “*tout mon hernois pour le jouster,*” so the plate trapper may have been only for the lists and not for war.

In the inventory of William III., Count of Hainault, published by M. E. de Prelle de la Nieppe in the seventh volume of the *Annals of the Archaeological Society of the Arrondissement de Nivelles*, are mentioned under the year 1358 “*ij paires de courretures de chevaux de fier de mailles et une paire de couvretures de fier de plattes.*” These of course are armour, and in the same inventory are “*8 paires de couvretures de kevans aescucés de hacement des armes de Haynnau et dont d'un bleu samit.*”

In the Add. MS. 15,477, of about 1360, knights are

seen with their horses protected by plate chamfrons and crinets and peytrals, but chain mail neck defences. Plate or *cuir bouilli* cruppers consisting of an upper piece and pendant panels on each side are also shown. See Hewitt, II., 231.

In the chronicle of Duguesclin two *battailes* or brigades each of 10,000 men on *destriers armés* are mentioned as being among the Spanish troops at the Battle of Najara 1367.

In 1367 for the duel between Douglas and Erskyn “*longas armaturas et cooperturas pro duobus equis*” are mentioned.

In 1386 the Statutes of the Florentine painters speak of the horse armour as being of leather and made from hides of various animals, cows, bulls, “*bufolo*,” etc., as is the custom of Florence. No bard painter was to presume to have in his shop bards made of any kind but according to the Florentine custom nor to paint any but these.

In a list of armour forfeited to the King Richard II. by the Earl of Arundel, who was executed 20 September, 1397, are :—

- i chaunfreyn blac dac^r pr le teste d'un chival.
- iiij pecez d'un trappur d'acier.
- j sell pr j bastard ove j bride & peytrell enbordurez
ove les armes darundell.
- iiij selles pr tonements dont iiij enbroudez & le
quarte peinez.
- vijj brides v pair de strepes iiij peytrelli.
- i necte pr j trapur livrez.

In the list of effects of Thomas Duke of Gloucester at his castle of Pleshy, 1397, trappers are mentioned, one embroidered with the arms of the Dukes of Gloucester, and two others “*batuz*” with the same arms and those of the Constable. The first trapper, with a penon, is valued at £20, the other two with several banners and small penons are put down at 13s. 4d. only. No metal horse armour is mentioned.

1405. The seal of Jean Sans Peur, Duke of Burgundy, shows a chain mail trapper and neck and throat chain mail defence ; there is also an armored trapper. The oldest mail trapper on seals is that of Robert de

Montraut, 1214 ; Comte de Comminges, 1226, has neck and peytral of chain mail, the crupper armored ; Savari de Mauleon, 1225, has a mail trapper all of one piece but scolloped for the spur place.

The cloth trapper was called *couverture pourpointe*, while the mail trapper was *couverture de fer*.¹

The great seal of Edward I. is the earliest with a trapper (armored).

In the Harl. MS. 1319, of the deposition of Richard II., in the second plate, on the horse of Richard II., who is knighting the youthful Henry of Monmouth, a chain mail trapper is seen beneath but not reaching as low as the housing which is semée with feathers. The MS. was executed soon after 1400.

In Harl. MS. 4431, the poems of Christine de Pisan, illuminated about 1420, a knight's horse is seen with plate chamfron and a short crinet of three plates. The neck defence as also the peytral and the crupper are of chain mail. The chamfron has the horse's eyes protected by pierced hemispheres. This is figured by Hewitt, III., 61.

The earliest representations of chamfrons and rigid peytrals in German art are to be seen in a MS. in the handwriting of Wilhelm von Orlenz, 1419, at Stuttgart, and the MS. of the *Trojanischer krieg* 1441, in the Germanischer Museum, Nurnberg. These are reproduced in Dr. Alwin Schultz's *Deutsches Leben im XIV und XV Jahrhundert*. In neither of the above instances are crinets or cruppers worn.

In the Fastolfe Inventory of 1459, among all the arms, armour and other belongings of the knight, the only items which can be connected with horse armour are " iij Trapuris, with iij clothis of the same sute."

At the entry of Charles VIII. into Rome in 1494, a body of French lances accompanied him, and Paolo Giovio in mentioning the event says that they were remarkable from the fact that many of them did not have their

¹ *Un collo da cavallo de malia.*
Dui petti di malia da mettere ali petti ali cavalli.
Un petto de malia da cavallo.

Libr. Aquila.

1543.

horses “*tegumentis recocoto ē corio confertis, uti nostris mos est.*”

In 1488, John Bourdichon, the King of France's painter, receives payment for repairing and repainting several of the King's bards on which were all sorts of designs.

In 1500, horse bards of leather and of “*cartes ou cartons*” appear in the inventory of Francis I. of Luxembourg.

In 1512, at the battle of Ravenna, Raymond de Cardona, Viceroy of Naples, had with him some 1,200 or 1,400 men-at-arms of whom 800 were on barded horses.

1513, April. Among things to be remembered by the King's (Henry VIII.) grace touching his going in person with the army Royal into France.

3^d The army should consist of 80,000 fighting men sufficiently armed, viz. : 1,000 horsemen “bardid” each with a page and a custrell, able to fight 10,000 horsemen “not bardid” and full armed each with a page and a custrell. 3,000 demi-lances whole armed with light armour except the legs, of whom 500 should be Yrysmen, 10,000 archers on foot, 4,500 bills and marispikes English and Welsh, 5,000 Almain marispikes, 500 gunners, 1,000 pioneers.

1513. 4th August–27th October, among payments for the war with Scotland is mentioned, 2 horse harness makers at 8*d.* each a day.

1513. In the remembrances for the apparel, etc., of Henry Percy, Earl of Northumberland, going to join the English army in France.¹

A trapper of my Lord's arms embroidered upon velvet, etc.

Another trapper of crimson cloth of gold, etc.

Another trapper of St. George of white damask with a cross of St. George.

Another trapper of “Curbely” covered with blue velvet embroidered with devices.

Another trapper beaten with my Lord's arms, etc.

Three Chamfrees. Three Crinez for my Lord's own

¹ *Archaeologia, XXVI.*

courisers and as many feathers and plumetts as well for my Lord's salletts and horses as shall best be thought behovfulle.

In 1513, Feb. Nicolo de Favri, describing England, says that the English cavalry consisted of 10,000 men, the greater part light horse and the rest heavy and barbed.

July, 1513. Bavarin mentions that there were 9,000 to 10,000 heavy barbed cavalry, and 8,000 light horse.

1515. Sir Robert Wingfield, writing to Henry VIII., 24 July, 1515, from Vienna, describes the entertainment by the Emperor Maximilian of the King of Poole (Poland), and says, "on the 21st the king of Poole rode to court. The Emperor gave the king of Hungary a bumbard which was carried to the water by 30 horses, and to the king of Poole two coursers all covered with steel to the fetlocks and (round) the belly, save in the spurring place." This, it will be seen, quite describes such horse armour as Junker Albrecht is represented with. (See below.)

 of the Brussels collection is a portion of articulated plate defence for the off hind leg of a horse. It would protect the lower part of the thigh, and is enriched with fluting and engraving. This is the only piece of such armour that has been met with.

The pictures at Cowdray, now only surviving in the engravings made of them shortly before their destruction, show very many instances of the use of horse armour; and in the picture at Hampton Court of the Battle of the Spurs, and in that also of the meeting of Henry VIII. and the Emperor Maximilian in 1513, are valuable evidences of the use of these defences.

1547. The military trapper or bard was evidently only worn when fighting was imminent, for Patten in his account of the battle of Pinkey (1547) says, "their (the Scots) horses were all naked without barbs, whereof though there were right many amongst us, yet not one put on forasmuch as at our coming forth in the morning we looked for nothing less than for battle that day."

1550. Gaspard Seigneur de Tavannes, in his memoirs under the year 1550, mentions that the French king, Henry II., sent him to Marshal de Brissac in Piedmont

with his company “*où il y avoit cent gentils hommes ayant leurs chevaux bardez d'acier.*” But under the year 1554, when speaking of the siege of Renty, in August, he says that M. de Guise sent 400 light horse supported by Tavannes, “*avec sa compagnie bardee des premières bardes d'acier qui s'étoient vues.*”

From the above it would seem that bards of *cuir bouilli* had been the usual military equipment.

1552. Francois de Rabutin, in describing the army which assembled under Henry, Duke of Guise, at Metz in 1552, speaks of “*les hommes d'armes montez sur gros roussins ou coursiers du Royaume, Turcs et chevaux d'Espagne avec les bardes peintes des couleurs des sayes que portoient leurs capitaines*” . . . also other great lords in gilt and graven armour, “*leur chevaux forts et adroits bardez et caparassonez de bardes et lames d'acier légères et riches ou de mailles fortes et déliées couvertes de veloux, draps d'or et d'argent, orfaveries et broderies en sumptuosité indicible.*”

1588. Tower Inventory :—[S.P.D. Eliz. ccxi 83.]

Shafferns whole ccl.

,, demi xxij.

1660. Tower Inventory :—

Shaffrones, *viz.*, to be repaired 92 ;
white and serviceable, 42.

Barbes for horses wanting one shaffron, 2.

It should not be forgotten that in the early middle ages leather played a much more important part in the matter of defensive armour than many credit it with. Not only was the knight's body armour often made in part of the *cuir bouilli* or moulded leather, but the horse armour was also often of this material. And with good reason it was employed, for it was lighter and probably much cheaper than either small plates or chain mail. It was also susceptible of much ornamentation by painting and gilding. Even after the introduction of gunpowder, which so far from driving out metal armour, was in use before the plate armour we are accustomed to see in pictures both ancient and modern, and even after the invention of hand firearms, *cuir bouilli* afforded a defence not inferior to that given by plate armour. Gunpowder

as used in small arms was really a mild form of the explosive which gives a muzzle velocity of 2,000 feet. Crusoe in his great work on cavalry, 1632, quotes de la Noüe, who says, in 1587, that the proper and effective manner of using the pistol was to place the muzzle against the body of your enemy below his cuirass and then to fire. Such a precaution was probably necessary for hitting your man sometimes, and when de la Noüe states that the pistol was not effective at more than three paces, it sounds as if the 16-foot pike of the seventeenth century was more of a long range weapon than the pistol. Anyhow the *cuir bouilli* was not less valuable than metal as a defence, except from artillery. If it protected the man from gunshots it was not less effective against the edge of a sword or the point of a pike, and even the English arrow, unless it struck fair so as to bite as it were, would glance off the light and tough pressed leather.

The following are some notices of *cuir bouilli* horse defences which will show the extent to which they were used :—

Il quale Re mense seco duemila cavalieri, ed aveano scudi la cui materia no era di legno ma di *cuoio cotte*.

G. Giudici, 1333.

E sie s'arma d'armadura di *cuoio cotto* le quali armadura pesavano piu di quattrocento libbre. Tav. Rit.

Ed crano tutti armati di *cuoio cotto* e cosi gli elmi, e non si potean dare di punta, ché cosi s'usa nel tornamento. Stor Ajolf.

In 1446 when the Seigneur de Ternant and Galliot de Balthazin fought on Thursday the 27th April at Arras, the latter was mounted on a “*puissant roussin couvert d'une barde de cuir de bouffle peint a sa devise (qui fut à maniere de ceintures tortuées) et y avoit au chanfrain, au poictrail et ès flans de la barde grandes dagues d'acier.*” When the marshal of the lists saw this he informed the Duke of Burgundy, then acting as judge, who at once sent Toison d'or to tell Galliot that such armament was contrary to the terms of the challenge. The “*dagues*” were then removed. Ternant's horse only had on a small “*harnois de velours cramoisy*,” after the

German fashion. Matthieu de Coucy, in his *Histoire de Charles VII.* says that Galliot's horse, "selon la coutume de Lombardie estoit tout couvert de fer."

Under September 21, 1465, Jean de Troye mentions "un cheval de pris qui estoit tout bardé de cuir bouilly, qui fut tue d'un coup de coulevrine," by the Burgundians.

In 1467, when Lord Scales and the Bastard of Burgundy fought in Smithfield, it is mentioned that the fourth horse of the Bastard was "coovird with bardes of courbully richely couvird with cloth of goolde." His other seven horses, as the nine horses of Lord Scales, were covered with rich trappers of velvet, cloth of silver, cloth of gold, of damask, and of ermines, but no actual defensive materials are mentioned. "Demi trappers, juste cloos trappers, trappers unto the foot," and a long trapper are noted.

1491. For representations of richly ornamented *cuir bouilli* bards there is hardly a finer example than the bas-relief of the battle of Brescia on the monument of Gian Galeazzo Visconti, in the Certosa of Pavia. Galeazzo Visconti died in 1402, and the monument is much later, the bas-reliefs in question being executed by Gio Antonio Amedeo, who lived 1447-1552 and it is thought made them in about 1491. A cast of the bas-relief is in the Victoria and Albert Museum, and many interesting details of horse and also man armour are clearly shown.

One of the most interesting relics of past times now in the Tower Collection is the upper part of a crupper of *cuir bouilli* or pressed leather. This is one of what were no doubt a very large number at one time in the Tower. The piece weighs 5 lb., and is well moulded to the form of the hinder part of a horse's back. Near the margin are holes no doubt for the attachment by points or laces of the other pieces forming the crupper. It may certainly have been for jousts and tournaments only, and then the cloth or textile trapper would be fastened to it.

In the accounts of Sir George Howard, Master of the Armoury, is under date 1 Edward VI. 1547, "Bought of one Woldeney of Westminster for the furniture of the army sent to Scotland,

Lether barbes XLVI.

,, Crynits XLVI."

Leather bards were also sent from Sion (Northumberland) at the same date, but as we know were not used at Pinkey, 10th September, 1547.

In the 1564 inventory of the Tower stores we find "LXVI leather barbes" mentioned, but in the inventory of 1569 they do not appear. In 1611 "1 barbe of leather" is noted, and this we may suppose to be the existing example. It would seem therefore that the use of the *cuir bouilli* horse defence actually ceased in 1547, and that at some time between 1561 and 1564 the small number then in store was reduced to one piece. Probably many uses were found for the discarded leather, and nobody missed them. As I have not met with mention of such defences still existing in any modern collection elsewhere, we can only consider ourselves lucky in having this one example.

We may now note some of the best examples of horse armour in European armouries.

Vienna.

v. Maximilian, horse armour about 1508. The chamfron with side plates covering the whole of the head. The crinet of strips of plate with chain mail between them covering the neck and throat. The peytral of three pieces. The crupper with imperial eagle on each side and monster-head tail pipe. The reins of plate.

xvi. Rupert, Pfalzgraf of the Rhine, about 1502. Chamfron with side pieces. Crinet of seven lames and two lames under throat. Peytral with *pezoneras*. Crupper of scale straps with knob on top and a tail pipe. Reins of plate.

xvii. King (later Emperor) Ferdinand I., 1547. The chamfron of two pieces, the lower skeleton. The crinet of ten lames with three throat bands of small plates. The peytral of three pieces. The crupper has an upper part of plate straps, with two deep plates hanging on either side.

ii, 14. Of about 1550, plain chamfron, crinet of six lames covered with cherry coloured velvet. Peytral and crupper of iron straps covered with velvet. There are five similar horse armours in the collection.

In the Zeughaus at Vienna was a portrait in oils on canvas of Junker Albrecht, Harnischmeister to the Grand Duke Maximilian I. He is represented as unarmed save for a shirt of mail which shows through the openings of his slashed sleeve, and a black breast and chin piece in one. The horse on which he sits is covered to the hoofs with plate armour. The chamfron is ridged and has a spirally twisted spike projecting from between the eyes, which are protected by cross bars. The neck and throat are protected by a crinet and under piece, the whole fastened by buckles under the throat. The peytral, with scolloped lower margin from which hang bells, is ornamented with a griffon and the Bur-gundian cross between the usual briquets or steel "strike-a-lights." The crupper of overlapping lames has on it, from near the saddle to the hinder part, a couchant dragon whose mouth forms the tail pipe.¹ There are no flanchers, but the horse's body is covered with articulated lames which leave a space void on each side for spurring.

The horse's breast is protected by a close-fitting series of lames which at the breast develop into the leg defences. These consist of an arrangement of close-fitting lames hinged on the outside and buckled on the inside. Only the front of the legs is covered at the knees, the upper and lower parts of the leg defences being connected by scale-covered straps. The hind legs are similarly protected, the front of the hocks having scale-covered straps. The lower parts of the fore and hind legs do not appear to be buckled, but have long shooting bolts to connect the two portions. These bolts are on the front of the fore legs but on the back of the hind legs. The lowest portion of the leg defences of all the legs does not appear to be hinged at all. An inscription on the canvas tells us that on Wednesday after our Lady's day, September 8th, in the year 1480, the expert Albrecht rode a horse thus armoured.

¹ On each side depend from the crupper plates similarly engraved, and with bells like the peytral. These are ornamented with a female figure with a

high head-dress, and holding in her right hand a shield bearing the arms of Maximilian; from her left hand flies a scroll with an inscription.

It would be difficult to believe this picture were it not that we have a notice of such armour in another place, and in the Porte de Hal collection is to be seen a portion of a similar horse armour (see above).

At Dresden is the magnificent armour for man and horse made by Heinrich Knopf for Christian II., the Elector, 1583–1611. (Pls. I, II, III.)

The whole horse armour is covered with *repoussé* work of the highest class. The subjects are as usual classical.

The chamfron has the eyes protected by hemispherical pieces of metal pierced in intricate designs.

The armour was made in 1606 at a cost of 8,800 gulden, or about £1,750, and is one of the very finest examples of the armourer's art.

There are no *streifbuckeln* on the peytral, which consists of three pieces. The crupper is of eleven pieces bolted or nutted together.

The whole armour has been well figured in *L'Art Ornamental*, December, 1883.

At Dresden are many fine examples of horse armour, but the above is quite the most remarkable.

Madrid.

A 26. Horse armour of Charles V. Chamfron fluted ; crinet of ten openwork lames ; peytral of three pieces ; flanchers ; crupper, the upper part of openwork metal with pendant plate-covered straps. The whole engraved and gilt.

A 37. Horse armour of Charles V. Chamfron with large side pieces, the ear covers of curled goats' horn design ; crinet of nine or ten lames overlapping a throat defence of large scales. The peytral has *pezoneras* ; flanchers ; crupper bell-shaped with tail pipe. The suit is known as *El de Valladolid*. (Pl. IV, from *Catalogue of Real Armeria*.)

A 65. Horse armour of Charles V. ; embossed chamfron ; crinet of nine lames with blunt ridge points, metal covered straps and connecting crinet to peytral three on each side. The crupper of metal covered straps with large knop on top, reins covered with plates.

A 149. Horse armour of Charles V. Chamfron ; crinet



HORSE ARMOUR OF CHARLES V., KNOWN AS EL DE VALLADOLID. (MADRID.)
(From *Catalogue of Real Armeria.*)

of small plates ; plate-covered reins ; openwork peytral ; crupper of openwork with tail pipe.

A 243. Horse armour of Philip II. Chamfron covering sides of head ; crinet of lames connected by strap and buckle with throat lames ; peytral with *pezoneras* ; flanchers ; bell shaped crupper. (Pl. V, from *Catalogue of Real Armeria*.)

A 263. Horse armour of Philip II. Chamfron ; crinet of fourteen lames ; throat defence ; plate-covered reins ; peytral ; flanchers and crupper.

A 291. Horse armour of Philip II. Chamfron ; crinet. This armour is incomplete.

In the Madrid armoury several of the metal bards are worn over richly embroidered trappers. Such may have been the case elsewhere, but it seems more probable that where the bard was plain, the trapper was worn over it, attached as has been described by *points* or laces passing through the metal. In the pictures at Hampton Court the bards are not shown with flowing trappers at all, and one would think that a flowing trapper would incommodate the horse more than the heavy steel bard.

In the MS. history of the Earl of Warwick by John Rouse (Brit. Mus. Cott. MS. Julius E. IV.) in Pl. XXX, the earl is seen jousting at the tilt. His horse has a flowing trapper, on the flanks of which are large circular plates ? displaying the Hastings *manche*. Similar but smaller circular plates protect the horse's shoulders, but there is no peytral. The horse has a plate chamfron, and a crinet of nine lames with apparently a chain mail fringe.

While on the subject of the trapper it is worth noting that de Vigne in his *Vade Mecum du peintre*, 1835, gives a sketch, purporting to be taken from a MS. in Ghent, of a trapper which is cut in the form of trousers for the horse, giving it the appearance of legs like an elephant. Enquiries as to the MS. have, however, up to the present proved fruitless.

In the Tower of London are two very fine examples of sixteenth century bards, both bearing the supposed north Italian stamp \overline{M} , but belonging to different dates. The one is a fine bold *repoussé* bard displaying the well known badges of the Dukes of Burgundy, namely, the

crossed ragged staves and the flint and steel or briquet. The plate reins also are cut to show the same badges, and the lower margins of the peytral and crupper are also engraved with pomegranates and other badges. The whole bard has at one time been washed with silver.

The crinet consists of eight lames and a top and lower lame ; this last is dished out so as to avoid fretting the horse's neck. The whole weighs 7 lb.

The chamfron is of three plates, the two side ones covering the horse's head and embossed with a design of leaves. The eyes of the horse are protected by perforated hemispherical guards, and the ears also are protected. The centre piece bears the Burgundian cross raguly embossed on it.

The second one is a bard which was engraved probably by some of the Almain armourers in the service of Henry VIII., to match the suit by Seusenhofer given by the Emperor Maximilian in 1514.

The peytral of this suit consists of a centre piece to which are hinged two shoulder pieces having each one a circular boss or *pezonera*. These side pieces protect the horse's shoulders and reach upwards near to the crinet. At the lower part of these side pieces are rivetted two three-sided plates, which thus bring the side pieces back to the flanchers. The centre piece weighs 2 lb. 7 oz., and the side pieces each 5 lb. 2 oz., the whole peytral thus weighing 14 lb. 11 oz.

The *pezoneras* or projecting bosses are 14 inches in diameter, and about 3 inches in relief. On the dexter one is engraved St. Barbara with attendants superintending workmen building a tower. On the sinister one is shown the trial of St. George. On the centre piece is engraved St. George on horseback slaying the dragon.

The flanchers are nearly rectangular pieces about 27 inches by 11 inches, with a square hole in the centre for the stirrup leather to pass out, and are suspended by straps at their upper corners ; they weigh about 3 lb. 4 oz. each.

The crupper consists of eight plates nutted together. These are : (1) an arch crossing the horse's back ; (2) a piece behind that with a ridged tail pipe (3) rivetted to it ; (4, 5) two plates on either side below the arch ;



HORSE ARMOUR OF PHILIP II. (MADRID.)
(From *Catalogue of Real Armeria*.)

(6, 7) two plates below the hinder piece; and (8) a breech piece under the tail.

On the dexter upper plate is the decollation of St. Barbara and on the lower plates are groups of St. Barbara being led to execution, and of the saint taking refuge from her pursuers in a tower.

On the sinister upper plate is the decollation of St. George, while on the lower plates are groups of the saint being racked, and tortured by being placed in a brazen bull beneath which a fire is being kindled.

The whole field is covered with foliage, roses, pomegranates, and the letters H & K.

On the sinister flancher are engraven two winged mermen. Engravings of the horse armour will be found in Vol. XXII. of *Archaeologia*.

The two parts of the bard are not made the same way, borders being added to the crupper and tail piece. The flanchers and peytral are continuous to the margin.

The Burgundian bard (Pl. VI) may be taken to belong to the years 1477–1482, for the Emperor Maximilian in 1477 married the daughter of Charles le Temeraire, thereby acquiring an interest in the Burgundian badges of the cross raguly and the pomegranate, both of which figure so largely in the *repoussé* and engraved ornamentation of this horse armour. The death of Marie in 1482 was followed by the Emperor's marriage with Bianca Maria Sforza in 1494. The bard is composed of twelve pieces, the peytral of 14 lb., two flanchers together 8 lb., a large arched piece next the saddle weighing 4 lb., two upper pieces of the crupper each $4\frac{1}{2}$ lb. These are joined above to the tail piece of $2\frac{1}{2}$ lb., and below to the nether crupper pieces, each of 9 lb. These again are bolted to a piece of 4 lb. under the tail. The lower pieces consist of two plates of metal united by rivets. The saddle steels, the front one of three pieces weighing $3\frac{1}{2}$ lb., and the back one of two pieces together 2 lb., make up a total of 65 lb. To these must be added the reins each of three plates of metal and weighing 4 lb.; the crinet of eleven arches, a lower piece which splays out, and a *testiere*, together 7 lb.; and lastly, the chamfron of 5 lb., which however has lost one cheek piece. The sum total is 81 lb. of metal besides the head stall, the saddle trees, the

stirrups, etc. These last are wanting. The horse would have to carry some 90 or 100 lb. besides the rider and his armour.

The scheme of ornament consists of the Burgundian cross raguly, the briquet or fire steel, and pomegranates and foliage. In some parts the fusil predominates, in others the pomegranates or the cross. The same scheme is followed in the pounced and engraved ornament, and sometimes the *repoussé* work is heightened by engraving. The hinges and buckles of the bard are in the shape of briquets. The reins of flat openwork metal display the same designs; and the whole, in its original state of silver and parcel gilt, must have been exceedingly handsome.

The saddle is of the class called by German writers *krippen sattel*, the cantle and pommel pieces coming round on each side so as to leave but a small space for entering the saddle, but giving much support to the rider when seated.

The following notices of Horse armour of Henry VIII. occur in the Calendars of State Papers :—

1514, Sept. Paul van Urelande for a horse bard for the king, £66 13s. 4d.

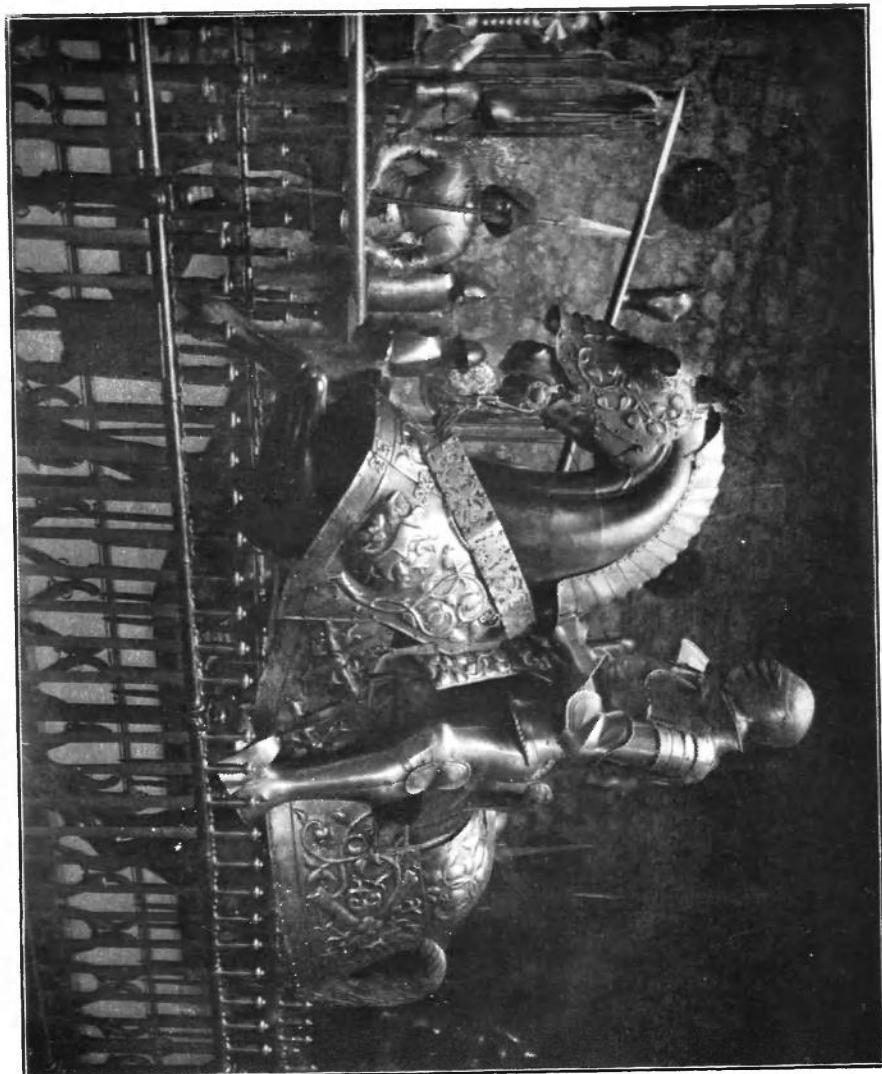
1515, June. Paul van Ureland graving harness, £66 13s. 4d.

1515, Mar. Peter van Ureland graving and gilding bards, £66 13s. 4d.

1515, Mar. Th. Broke workmanship of hides for bards, £11 6s. 8d.

1516, May 28. Annuity of 100 marks for Paul van Ureland, the king's harness gilder.

1516, May. Henry VIII. to John Heron, Treasurer of the chamber, has bargained with Paul van Urelande, harness gilder, for the making, engraving, gilding and silvering of a barb, a saddle and a neck piece for a horse "like sample according unto a complete harness which of late he made for our body." Ureland is to find the gold and silver, wages of workmen, coal, quicksilver, etc., but not the "barb saddle neckpiece and all of steel. And for the engraving, gilding and silvering he is to have £200 which Heron is to pay as follows : 100 marks on the sight of these letters, 100 marks at Christmas



HORSE ARMOUR OF THE EMPEROR MAXIMILIAN. (TOWER ARMOURY, LONDON.)

next and 100 marks at the Annunciation then next ensuing" . . . t year of our reign.

1514, June. Fras de Barde 2 rich jackets with 2 coverings for horse bards, £800.

1519. Revels. P. 1548, Vol. 3, Cal. S.P. H. VIII. Steel Bards. Gilt with a trail of roses and pomegranates, with the story of St. George and St. Barbara, and a crynny and shawfron wrought by Powle.

Silvered parcel gilt with pomegranates and Burgonyons crosses crynny, shawfron and reins, with a fringe of gold and black silk given by the Emperor.

Parcel gilt with crynny, etc.

Ungilt threee with crynnys, etc.

Parcel gilt two crynnes and shawfrons.

two shawfrons.

two of Powles gilding lacking an ear.

Not gilt, sixteen crynnes and shawfrons.

fourre other crynnes without shawfrons.

Saddles of steel. Silvered and parcel gilt covered with crimson velvet with a border of pomegranates, the Emperor's gift.

	Engraved.	Burgundian.	
Chamfron	5 : 4	5 : 0	
Crinet	6 : 13	7 : 0	
Peytral centre	2 : 7		
,, left	5 : 12	14 : 0	
,, right	5 : 2		
Flancher, right	3 : 5	4 : 0	
,, left	3 : 4	4 : 0	
Crupper, upper right		4 : 8	
,, left	15 : 8 {	4 : 8	
,, tail		2 : 8	
,, lower right	8 : 8	9 : 0	
,, left	8 : 8	9 : 0	
,, tail	3 : 12	4 : 0	
Arch behind saddle	with upper crupper	4 : 0	
			These bards, it will be seen, are nearly identical in weight, and are constructed on very similar lines. Their weights may be compared with that of the <i>El de Valladolid</i> of Charles V. in the Armeria at Madrid, A. 37, which is also of German make, though without any armourer's stamp. This bard with its throat defence of scale armour weighs 129 lb., but this probably includes the saddle, saddle steels, reins, etc.
	69 : 3	71 : 8	

In the Tower of London is a fine Persian horse armour composed of small brass plates connected by strips of

chain mail. It was formerly known as "The Crusader," but this attribution is clearly wrong. The system of small plates so connected, whether of steel or of brass, is common in much oriental armour.

The horse armours in the Musée d'Artillerie, Paris, consist of various numbers of pieces. Thus, including the *bâte de devant* or front saddle steels, generally of three pieces, and the *bâte de derrière* or *troussequin*, generally of two pieces, No. G 545 is of 24 pieces of metal; G 552, 19 pieces; G 553, 23 pieces; G 564, the horse armour of Louis XIII., is of 19 pieces.

At Turin there is a remarkably fine peytral (*pettiera*) of one piece of metal splendidly chased with festoons of fruits, medusa heads and foliage. It belonged to Antonio Martinengo. See *Turin Catalogue*, p. 155.

In the Lifrustkammer at Stockholm are several horse armours of very varying worth. One of these, No. 12, is, like the man's armour, richly enamelled in black, white and red. The armour bears the stamps of Nuremberg and Conrad Lochner, 1510-1567, or according to Boheim, that of Conrad's brother Hans. No. 10 of the same collection is as inferior in style and execution to most horse armours as No. 12 is superior. The most interesting feature of the collection is the great number of heavily and richly embroidered trappers for horses, so heavily and thickly quilted as to be probably quite as efficient a protection as No. 10.

Hansard says that the Spaniards invented felt coverings for their horses as a protection against the Floridian arrows, and Lewis and Clarke mention that the Shoshone Indians used horse armour composed of many folds of antelope skins. Du Pratz says that the Comanches covered their horses with dressed leather hanging down all round.

In German we find many words used for the chamfron, its parts and its various forms. Thus *Rosskopf*, *Rossestirn*, *Haubstierl*, are all words for the chamfron, and *Sturl* and *Kleppersstirn* are applied to the half chamfron. On the face of it was generally a *Stirnschildchen* or small shield engraved with the owner's arms, while from the centre of this projected the *Stachel* or spike. Some chamfrons had *Pagkhn* (*Bakken*) or cheek pieces. Some

had grated coverings for the horse's eyes and some, *geblendet*, covered the eyes altogether as in the jousting called *Gestech im hohen Zeug*. *Halsstück* was the crinet.

Kanz was another name for the crinet and *ganzerkanz* the defence when including throat; the *Fürbug* was the peytral with its *streifbuckel* or glancing bosses; *Gelieger* the crupper, sometimes with the *knopf* or knob of apple-shape, sometimes like a *grelot* or spherical bell.

Zugel bleche were the plates protecting the reins, and *Schweifbunde* the arrangement for fastening or trussing the tail.

The whole bard, in its earliest form called *Parsche*, was of one piece, but later it was divided into two parts, in front and behind the saddle.

According to Boheim the chamfron first appears in 1300, then in 1360, the horse's neck receives protection of small plates; in 1400 the peytral comes into use, and a little later the crupper.

The Spaniards as we have seen use the words *testera* for the chamfron. *Cuello* was the crinet, also *collera* or *capizuna*. *Pechera* or *pretal* was the peytral with its *pezoneras* or protuberances. *Costeras*, *francaletes* or *flanqueras* were the flanchers.

Coplon or *Grupera* was the crupper with the *guarda maslo* or tail piece; *caparazon* was also used for the crupper.

The French apply the following names to the parts of horse armour.

Chanfrein à vue or *aveugle* according as it is with eye openings or without. *Tetière*, the small piece connecting the chamfron and the *barde de crinière* or crinet. The *barde de poitail à charnière* or *à jupe*, that is the peytral in three portions or in one. The *bossoirs* are the protuberances on the sides of the peytral. The *Flanois* or flanchers, the *Barde de croupière*, which is *à jupe* or *à tonelle* according as the sides of the crupper dish outward or go down straight.

The *porte plumet* is either on the *tetière* or on the *chanfrein*.

The *garde queue* is the prolongation of the crupper protecting the tail; sometimes it is styled *culeron*.

In Italian *Testiera* and *Frontale* are both used for the

chamfron, though the *testiera* was properly the small plate connecting the top of the chamfron with the upper lame of the *collo* or crinet. The chamfron was *à vista* or *à cieca*, that is, for exposed or for covered eyes.¹ The *brocco* or *spuntone* is the spike. The *gorgiera* is the throat defence. The peytral is called *petto*.² The flanchers are *Fiancali*. The crupper is *schicua* or *groppa*, and the tail piece *guarda coda*.

It will be noticed that on bards of steel when not ornamented with *repoussé* or engraved work, and on *cuir bouilli* bards when not painted or otherwise adorned, there are holes in pairs situated at intervals along the margins of the portions of the bards and also in other places. These were for two purposes, those near the margins, for the attachment together of the various pieces, the other ones for the fastening to the rigid bards of the trappers of textiles, etc. The fastening was arranged by means of points, that is short laces of leather cord or silk with *aiguillettes* or metal tags at the ends. The points were passed through the rigid bards from underneath, and then through the textile trapper, and tied in a bow knot on the outer face. It would be necessary in such a manner to keep the light flowing drapery of the trapper in its place during the rapid movements of the horse, or in a wind. These points for attaching the various parts of the bard together are seen in the numerous German tourney books, illustrations of which are given by Hefner, Henne am Rhyn, etc.

Besides *cuir bouilli* and metal as materials for horse armour we find now and then wadded protections for the horse mentioned, as when Juvenal des Ursins, under the year 1411, says that the Gascons under the Comte de St. Pol had on their horses "*coultepointes pour doute du trait*," that is, quilted defences against arrows.

Gay in his *Glossaire archéologique* says that in the Musée d'Artillerie at Paris there is a chamfron of "*parchemin ferré*," but it does not appear in the catalogue.

¹ The plume holder is *pennacchiera*.

² Or *pettiéra* or *pettorale*, *codone* or *posolino*.