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A RECORD OF  
EUROPEAN ARMOUR  
AND ARMS

VOL. I







*Emery Walker ph. sc.*

*Suit of Armour made for King Henry VIII  
now at Windsor Castle*

A RECORD OF  
EUROPEAN ARMOUR  
AND ARMS  
THROUGH SEVEN CENTURIES

BY  
SIR GUY FRANCIS LAKING, BART.  
C.B., M.V.O., F.S.A.

LATE KEEPER OF THE KING'S ARMOURY

WITH AN INTRODUCTION BY  
THE BARON DE COSSON, F.S.A.

VOL. I



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TO  
HIS MAJESTY KING GEORGE V

BY THE GRACE OF GOD KING OF THE UNITED KINGDOM  
OF GREAT BRITAIN AND IRELAND AND OF THE BRITISH  
DOMINIONS BEYOND THE SEAS, DEFENDER OF THE  
FAITH, AND EMPEROR OF INDIA, IN WHOSE HOUSEHOLD  
THE WRITER HOLDS THE ANCIENT OFFICE OF KEEPER  
OF THE KING'S ARMOURY, AND WHO IN FULFILMENT  
OF A PERMISSION GRANTED BY HIS LATE MAJESTY  
KING EDWARD VII, HAS HIMSELF ACCEPTED  
ITS DEDICATION, THIS WORK IS  
OFFERED BY HIS FAITHFUL  
SERVANT, THE  
AUTHOR





## AUTHOR'S PREFACE



HIS book does not pretend to open up a new road to the student of arms and armour, but it is a faithful record of my observations and notes since boyhood. My evidence confirms the accepted theories of the great scholars who preceded me. Herein I trust lies its interest and value for the reader.

I feel, therefore, that my homage is first due to the memory of Sir Samuel Rush Meyrick, that pioneer of all who have been learned in the study of the harness of war, and after him I think gratefully of those who followed in his footsteps. My book owes much to their research, although of necessity it covers a wider field, in view of the work of archaeologists during the last forty years.

At least I may claim for my pictures that they are all drawings or photographs of genuine pieces. I say frankly that my long experience in handling the work of the old armourers has made me bold to speak with some authority on what my eyes and fingers have learned about the technical aspect of ancient armour and weapons, the subject of this book.

I can warrant the genuine antiquity of every piece of armour of which I have given an illustration, and the student may trust himself in this gallery where all are accredited examples. I have not dealt with firearms, but the history of that weapon, which introduced the new strategy and ruined the armourer's craft, requires a volume of its own.

If I owe much of my knowledge of this subject to the pioneers of armour learning, I must confess a still greater obligation to present-day authorities: again and again I have availed myself of the fruits of their research, but never, I trust, without full acknowledgement.

To my very dear and old friend, the Baron Charles de Cosson, to whom the

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very existence of this work is due, I am proud to admit the deepest indebtedness. The results of his learning and research, in all their thoroughness and exactitude, he has always ungrudgingly placed at my disposal. Well over a quarter of a century has passed since he and I became the closest and most affectionate of friends. Hundreds of happy hours we have spent together, he teaching and I endeavouring to learn something of the subject we both have so deeply at heart. The Baron has been my preceptor from the days of my early teens—never harassed by the eager questioning of a schoolboy, always ready to assist in any expedition where the study of arms was our goal. I can only say that it is almost entirely due to my close association with him for over twenty-five years, and to his splendid methods of expounding his knowledge, that I now feel confident to speak with authority as to the genuineness of a weapon or piece of armour.

His preface to this work, as my readers will not be long in discovering, is surely one of the happiest attempts to waken life and the humour of life among the old bones of antiquarianism.

To the researches of the late Sir William St. John Hope, three of perhaps the most interesting portions of this work owe their existence. They deal respectively with the achievements of Edward the Black Prince and of King Henry V, and with the more important State swords of England, and are entirely founded upon, and in some cases literally copied from, Sir William's illuminating accounts. It was through the kindness of their author that I have been allowed to make use of them, and here I acknowledge my indebtedness.

The Viscount Dillon, as befitted the sometime Curator of our National Armoury at the Tower of London, has written much, and with ripe scholarship, on the subject of his charge. From the many erudite articles that have come from his pen I am happy to confess that I have derived great profit.

His successor in the custodianship of the Tower Armoury is my friend, Mr. Charles ffoulkes. My debt to Mr. ffoulkes I am delighted to recall. His kindness in placing at my disposal his knowledge of the histories of the Tower Armoury has been of the greatest assistance to me. Indeed, I cannot adequately express my debt to him, for he has allowed me to consult at my leisure all the existing inventories of the Armouries of Greenwich and the Tower.

## AUTHOR'S PREFACE

In the task of writing a consecutive story, a task peculiarly difficult to one who, like myself, has not the pen of a ready writer, I have often turned for help to that accomplished antiquary, Mr. Oswald Barron. This help he has always given me most ungrudgingly, and to him I owe my rescue from many a literary tangle. Mr. Barron has also written several historical paragraphs for which I most gratefully thank him.

Again, to Mr. S. J. Whawell, my old friend of very many years' standing, there is an obligation to be acknowledged; for, whenever a controversy has arisen over the authenticity of a specimen, he has always very generously come forward as consultant and given his opinion. In such predicaments, occasionally most difficult, I have always turned to him, and his decision has ever been final; for his knowledge of our subject is never at fault. It is not too much to say that a judgement of his, passed on any European weapon or armament, is one which cannot be disputed.

Among my other friends who collect armour, no one deserves greater credit for the good work that he has accomplished than Mr. Felix Joubert, from whose collection I have been privileged to take certain illustrations for this book. Mr. Joubert is an artist to his finger tips—modelling, painting, enamelling, and, indeed, interesting himself generally in all the arts of the past. He is a kind friend, ever ready with his staff of skilled workmen to assist in the repair of a weapon or harness of plate, with which time or the ignorant hand of a restorer has dealt hardly. A very skilled fencer, he has a most intimate knowledge of all types of arms, and, as an artist, appreciates what a weapon should be.

Sir Farnham Burke, K.C.V.O., C.B., Garter King of Arms, is another collector of armour and of weapons who takes a deep interest in the subject; the frontispiece of this work is due to his generosity. Like the true collector that he is, Sir Farnham finds his chief interest in the armourer's craft to lie in the fact that armour was most beautiful in form and workmanship at the period when the armourer's mind was centred in producing the most effective defence possible for the knight in war and tournament.

To Major George Cotterell and Mr. Lewis Bettany I tender my very sincere thanks for the great assistance they have rendered me in the compilation of this work, and for the interest they have taken, I believe for my sake, in the study of armour and arms.

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All others of my friends who love armour, and whose names I have not mentioned, will, I trust, accept the general expression of my sincere gratitude. I am the more ready to think that they will be content with such expression on my part because I know the tribe so well. I know that the freemasonry which unites collectors goes to a friendship which no lapse of years ever lessens and which renews itself each time the familiar question is put: "Well, what have you come across since last we met?"

A last look at my volumes reminds me of many alleys down which I might have strayed. I could, for instance, have pursued the chapter on forgeries to much greater length, but in that section of this work I know that I move over very thin ice. I could easily have filled the chapter with illustrations and descriptions of the famous forgeries of armour and weapons which are contained in English collections; but I am not eager for controversy: I write peacefully of this warlike gear and would not wound the susceptibilities of any collector. If any old tradition should suffer, or any family treasure lose its good name, I wish it to be understood that all that I have written in my book has been in the pursuit of truth.

I desire to express my most grateful thanks for permission to reproduce illustrations contained in these volumes to the following:

The Trustees of the British Museum, the Trustees of the National Gallery, the Board of Education (Victoria and Albert Museum), the Curator of the Tower of London Armoury, the Director of the Royal Scottish Museum, Edinburgh, the Director of the Royal United Service Institution, the College of Arms, the Society of Antiquaries of London, the Royal Archaeological Institute of Great Britain, the Committee of the Royal Artillery Institution, the Royal Regiment of Artillery, the Burlington Fine Arts Club, the Dean and Chapter of the Abbey Church of Westminster, the Dean and Chapter of the Cathedral Church of Canterbury, the Director of the Belfast Museum, the Curator of the City Museum, Norwich, the Librarian of New College, Oxford, the Keeper of the Ashmolean Museum, Oxford, and the Curator of the Public Museum, Sheffield.

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The Director of the Musée du Louvre, Paris, the Director of the Musée

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d'Artillerie, Paris, the Director of the Bibliothèque Nationale, Paris, the Director of the Musée Cluny, Paris, and the Directors of the Musées of Lyons, Grenoble, Dijon, and Draguinan.

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GUY FRANCIS LAKING.

*September 1919.*



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## INTRODUCTION

“Et trouve que l'acier est plus noble chose que l'or, l'argent, le plomb, ne le fer, pour ce que de l'acier, comme du plus noble métal, l'on fait les armeures et les harnois, dont les plus grans du monde se parent, et assurent leur corps contre la guerre, et autrement, et de l'acier se font les espées, les dagues, et autres glaives, dont les vaillances se font d'ennemis sur ennemis.”—MESSIRE OLIVIER DE LA MARCHE, *circa* 1490.<sup>1</sup>

YOU have asked me, dearest Guy, to write an introduction to your book on armour and arms. I do not think that a work of yours on that subject needs any introduction to the public. What you have already written on the Armoury at Windsor Castle, your catalogue of the arms and armour in the Wallace Collection, both of which I consider models of how such work should be done, besides many smaller papers on armour and arms which have appeared at various times, sufficiently prove your great competence in the study of old steel. But as you wish me to write an introduction, I do so with very great pleasure. Your book will, I feel sure, be just what is wanted by all who wish to obtain a comprehensive view of the history and evolution of arms, offensive and defensive, in the Middle Ages. You call it a picture book, but a picture book is exactly what is most needed by the student; especially so complete a one as yours will be, displaying for the first time, by types drawn from innumerable sources, all the varied forms taken by armour and weapons in past times. You and I, who have for years collected photographs, prints, and other documents relating to our favourite study, know how invaluable are these data for getting a true insight into the history of arms. But from what I have seen of the text, I think it will be much more than a picture book, a really valuable and up-to-date study of the subject. You do me the honour to call me your master in that study and I can assure you that I feel proud of my pupil and that it will be a very pleasing thing to me to see my name associated with yours on the title-page of your book.

I well remember how, some twenty-eight years ago, being in the shop of a well known armour dealer, I was told that young Laking, the son of the Physician to the

<sup>1</sup> Ed. of Brussels, 1616, p. 651.

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Prince of Wales, was anxious to know me and had been trying to effect a meeting with me. A few weeks elapsed and this meeting took place and I saw a slim boy of about fifteen who, with a hurried, impetuous, cracked voice, launched into all sorts of questions concerning armour and arms. His ardent enthusiasm pleased me greatly, and, as long as I stayed in London, we saw much of one another and indulged in endless disquisitions on the subject of arms, and these discussions have been continued at intervals ever since. I found that you, like myself, were animated by the same love of steel that prompted the old chronicler to write the passage which I have taken as the text of this introduction, and I soon was convinced that you would pursue the study on the lines that I had laid down in the "Catalogue of Helmets and Mail" in 1881,<sup>1</sup> and which I considered the only true and scientific course to pursue. You have more than fulfilled that promise, and it is a great delight to me to know that the study that has been the passion of my life, will be continued by a worthy successor.

This study, when I took it up, was confined to a very few people. Many had collected arms and armour for their artistic merit, decorative effect, or their more or less romantic or historical associations, but few had inquired into the reason of this or that type or form, still less had examined the constructive features of the pieces. A brilliant exception was the French architect Viollet-le-Duc, whose work on arms<sup>2</sup> laid the foundation of the method pursued by Burges and myself in the above-mentioned "Catalogue of Helmets and Mail."

Always addicted to the study of natural science, it had seemed to me that armour and arms should be examined in the same manner in which the scientist proceeds. How does the naturalist, the geologist, the paleontologist pursue his studies, but by collecting the greatest possible number of specimens and then, by a careful collation of this material, he is enabled to evolve a logical and scientific theory and history of the objects which form his study. It is for this reason that I have insisted upon the value of a really extensive picture book, although a minute examination of the greatest possible number of real examples must always be the basis of a truly critical and profound knowledge of ancient armour and weapons. The number of students in Europe who follow this course is increasing, and I doubt not that the present book will do much to interest the reading public at large in the subject.

And this subject is one that deserves more attention than has generally been given to it. For many ages, until fire-arms had reached a certain perfection, defensive armour and weapons of steel, whether swords, daggers, or hafted weapons, were a matter of vital interest to every people in Europe, indeed, almost to every man, for every man was armed in some way or another, and war of some kind went on almost

<sup>1</sup> "Ancient Helmets and Examples of Mail," by Baron de Cosson and W. Burges (*Archaeological Journal*, vol. xxxvii).

<sup>2</sup> Viollet-le-Duc, *Dictionnaire raisonné du Mobilier Français*, vols. ii, v, and vi.

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without intermission. The progress and perfecting of various forms of armour and weapons had also on more than one occasion a considerable influence on the fate of peoples and the making of history. The longbow of the English in the Hundred Years' War, and the pikes and two-handed swords of the Swiss in their struggles with Austria and Burgundy are examples of the influence of weapons on historical events, and, in recent times, the rifled cannon of Napoleon in the Italian campaign of 1859 and the needle gun of the Prussians in the Danish one in 1864, are considered to have aided in deciding the fortunes of those wars.

Arms were not only the serious business of the Middle Ages, but also its sport. Men prepared themselves for the strenuous labours of war by jousts, tournaments, and courteous combats of various kinds. The training needed for the use of the heavy armour and weapons then in vogue was a very arduous matter. Men trained for it in the Middle Ages as we now train for a boat race, a football match, or any other form of athletics. If a man's career was to be that of arms, he began this training as a child, and it was continued without interruption until it was perfected. Juan Quijada de Reayo, in a very rare little book, written apparently in the first years of the XVIth century and addressed to his son,<sup>1</sup> says that it is necessary to begin the training of a man-at-arms as a child is taught to read by learning the A B C. We are now astonished when we read that a young esquire could vault over his horse in the complete armour of the XIVth century, but there is no valid reason for doubting the statement.

We learn also from various treatises on the subject, that the relative merits of different forms of armour and weapons must have been a fertile source of conversation and discussion in mediaeval times, when men's lives in war so greatly depended on them. The old chroniclers frequently refer to the perfection of arms made in one place or another, and amusing questions of warlike armament are sometimes the theme of the novels then in vogue.

Franco Sachetti, writing in the second half of the XIVth century, tells how a certain knight of the great Florentine banking house of the Bardi, being appointed Podestà of Padua, had to supply himself with the armour and equipment needful for him to enter on his office with due solemnity. Now he was an exceedingly little man, not expert in horsemanship, nor used to warlike exercises. Lacking a crest for his helmet, he consulted his friends what he should choose for it. They, putting their heads together said, "he is very stumpy and unimposing looking and we cannot give him height as the women do by putting it under his feet, so let us add to his stature by putting it on the top of his head." They therefore went out and found him a very tall crest representing a demi-bear rampant, with its claws raised, and beneath a motto

<sup>1</sup> *Doctrina de la Arte de la Cavalleria*. Small 4to. Medina del Campo, 1548 (Royal Library, Madrid).

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which said, "Jest not with the bear lest you be bit." And with this and all his other war harness he set out very honourably from Florence to travel to his new post.

Passing through Bologna he made a considerable display with his equipment, but on arriving at Ferrara, feeling that he was nearing the seat of his office, he made a much more magnificent entry, sending on before him his bascinet, his surcoat, and his crest with the bear. As these were passing through the great square of the town, which at that time was full of the Marquis's soldiers, a German knight, espying the crest with the bear, bounced up from the bench on which he was sitting and exclaimed, "Who is this who dares to use my crest?" Then calling his squire, he ordered him to bring at once his armour and his war horse, as he must fight the man who had had the temerity traitorously to bear his crest. Now this German, Messer Scindigher by name, was of gigantic size and a very valiant warrior. The onlookers, both German and Italian, attempted to appease him, but all to no effect, so two of them went to the hostelry where the Florentine lodged, to tell him that he must either give up his crest or fight a German knight, Messer Scindigher, who claimed the crest as his own. The Bardi knight, not at all used to this sort of business, replied that he had not come to Ferrara to fight but to pass on to his Podestàship of Padua, that he regarded all men as friends and brothers and that no more could he say. Returning to Messer Scindigher they found him already completely armed, fuming more than ever and calling loudly for his charger. The peacemakers, having in vain attempted to pacify him, returned to the inn and said to their friend, "it were better you should come to terms with this German, for we left him already fully armed, raging with fury, and we verily believe that by this time he has mounted his war horse and is coming to fight you." "He may arm himself and do as he will," replied the Bardi knight, "but I am not a fighting man and fight I won't." In the end, after much discussion, he suggested, "let us settle it with florins, so that honour may be satisfied on both sides and I may immediately continue my journey. This German declares that I am using his crest, but I swear on God's Gospel that I had it of the painter Lucchino at Florence and it cost me five florins. If he wants it, let him send me five florins and he is welcome to it." When this was reported to the German he summoned his servant, and giving him five florins bright from the mint, ordered him to fetch the crest, which was brought to him wrapped in a cloak, and when Messer Scindigher received it he felt as glorious as though he had conquered a city. Now the Podestà who was going to Padua, remaining without a crest, sent a friend to search all over Ferrara for one to replace the bear. By chance he found in a painter's shop a crest representing a half baboon dressed in yellow with a sword in its hand. So returning to the knight, he said to him, "You are in luck's way, I have found just what you want, we will have the sword replaced by a big red pike<sup>1</sup>

<sup>1</sup> The reason for this was that in Italian the term *fante di picca*, knave of pikes or spades, was used for a ridiculous man who gave himself much importance.

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and that shall be your coat of arms." The Podestà rejoiced, the crest cost him only a florin, and the repainting of some targes and other accoutrements with his new blazon perhaps another florin. So, whilst the German knight kept the bear, the Bardi knight with three florins to the good and the baboon displayed on all his equipments, went his way in state to assume his high office as Podestà of Padua.<sup>1</sup>

A curious question of armament forms the subject of the fifth story in the *Cent Nouvelles nouvelles* written about 1456. It is entitled *Le duel d'aiguillette*. The story in brief is this: "During that cursed and pestilent war between France and England which is not yet ended,"<sup>2</sup> an English man-at-arms takes a French one prisoner and sends him with a safe-conduct from the Lord Talbot to get the money for his ransom. On his way he meets an Englishman who questions him as to where he is going, so the prisoner tells him and, drawing the safe-conduct from a small box at his belt, shows it to him. The other reads it and seeing the usual stipulation that the prisoner shall travel without military harness of any kind, notices that the Frenchman still has arming points<sup>3</sup> attached to his doublet, and immediately declares that he is infringing the conditions of his pass, as arming points are a part of war harness. He therefore summons him to surrender. "By my faith," says the Frenchman, "saving your grace I have not infringed it, see how unarmed I am." "Nay," says the Englishman, "by Saint John your safe-conduct is violated, surrender or I shall kill you." The poor prisoner, who had only his page with him and was all bare and defenceless, whilst the other was followed by three or four archers, surrenders and is taken off to prison. But he sends his page in haste to his captain, who marvels at the message and immediately dispatches a herald with a letter to the Lord Talbot to apprise him of the event. Talbot, hot-headed and ruthless in war, but yet a just man, has the letter read out before a number of knights and esquires and boils with wrath on learning that his safe-conduct has been disregarded. So he at once summons both parties and makes each one tell his tale. The Englishman maintains that, as one cannot arm oneself without them, arming points are a part of war harness. "Lo and behold!" exclaims Talbot, "arming points are real war harness and for that reason you have arrested a gentleman furnished with my safe-conduct! By Saint George we shall see if they are war harness." And fuming with resentment he tears two arming points from the prisoner's doublet, hands them to the Englishman and at the same time has a war sword given to the Frenchmen. Then drawing his own good sword, he cries to the Englishman, "Now defend yourself with your war harness," and to the Frenchman, "smite this villain who captured you without reason; if you spare him, by Saint George I will strike you." In

<sup>1</sup> *Novelle di Franco Sacchetti cittadino Fiorentino*, novella cl.

<sup>2</sup> That fixes the telling of this particular tale to 1452 or 1453 at latest. Talbot died in 1453.

<sup>3</sup> Arming points were laces with tags, attached to the doublet, which served to fix certain pieces of plate armour.

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the end the capturer is so knocked about that he cries mercy, and Talbot sets the prisoner free without ransom, returning him his horse, armour, arms, and baggage which had been taken from him when he was captured. In 1599 this good sword of Talbot would appear to have been preserved in the Castle of Blaye, not very far from Castillon, where he was killed in battle in 1453, for Monsieur de Lussan, Governor of Blaye, being in England in that year and having business with Talbot's descendant, the Earl of Shrewsbury, offered to give it to him, but the French ambassador at the Court of St. James, Monsieur de Boissize, who had himself seen the sword at Blaye, getting wind of this, wrote to Henri IV's minister, Villeroy, advising that the King should order M. de Lussan to give the sword up to him as it was well worthy of a place in the King's cabinet, adding, here in England they show the cannon that they have taken from us, we might at least show the sword of Talbot.<sup>1</sup>

Readers of Rabelais will remember the thesis propounded by Panurge: "*la braguette est première pièce de harnois pour armer l'homme de guerre,*" and the story of the Seigneur de Merville. He one day was trying on a new suit of armour in which to follow his King to the wars, as his old one was rusted and could no longer serve him, for of late years he had grown very fat. His wife, looking on in a contemplative mood, noticed that he was not armed with a *braguette* of plate, but only chain mail, so being especially wishful that no harm should come to him in so vital a part, she advised him to strap on a big jousting helmet that was lying useless in his closet.<sup>2</sup>

In one of Bandello's novels we get a glimpse into the life of a Mantuan swordsmith in the XVIth century, who sits up all night to finish a sword ordered by a rich French gentleman who was passing through the town and leaving next day, whilst his pretty wife . . . but I will refer the curious reader to Novel LIX, Part I, of this witty author for the rest of the tragic story.

Tomaso Garzoni, in a book written about 1580 concerning all the professions in the world, amongst which he counts bullies, hired assassins, swashbucklers, etc., gives us a vivid picture of the Venetian bravo of his day. On rising in the morning, he puts on his shirt of mail and over it his steel corselet, and with a steel skull-cap on his head, gauntlets or gloves of mail on his hands, a sword and a dagger by his side, a short arquebus slung in its leather pouch and its iron bullets in his breeches pockets, he strides forth from the house armed like a Saint George. He takes a turn up and down the Piazza, and with four fierce glances makes himself master of the whole place. Keeping his hand on the pommel of his sword and swinging it right and left, he causes the scabbard to strike against his muscular calves, making every one in the square look at him and exclaim: "See! what a piercer of mail! what a cruncher of iron! what a slayer of hundreds!"<sup>3</sup>

<sup>1</sup> Léon de Laborde, *Glossaire Français du Moyen Age*, Paris, 1872, p. 483.    <sup>2</sup> Book III, chaps. vii and viii.

<sup>3</sup> Tomaso Garzoni da Bagnacavallo, *La Piazza universale di tutte le Professioni del Mondo*, Venezia, 1585.

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This sort of gentleman was not quite unknown in England either about the same period, and is well portrayed by Camden: "York was a Londoner, a man of loose and dissolute behaviour and desperately audacious, famous in his time amongst the common bullies and swaggerers as being the first that, to the great admiration of many at his boldness, brought into England the bold and dangerous way of fencing with the rapier in duelling, whereas till that time the English used to fight with long swords and bucklers, striking with the edge, and thought it no part of man either to push [thrust] or strike beneath the girdle."

\* \* \* \* \*

In the Middle Ages the sword was rightly considered as the most noble of weapons; it was the emblem of justice, of dominion, of estate; and in the literature of the time, especially in the cycles of romances relating to Arthur and the knights of his round table, to Charlemagne and his Paladins, the swords of great warriors, or those reputed of especial excellence, are often extolled, and bear names which became legendary. Such were the *Excalibur* of Arthur, the *Joyeuse* of Charlemagne, the *Durandel* and *Flamberge* of Roland, the *Hauteclere* of Oliver, and the *Courtain* of Ogier le Danois.<sup>1</sup> We are also told who were the smiths who made these celebrated weapons, three brothers, each of whom made three swords. Galans made *Joyeuse*, *Flamberge*, *Hauteclere*; Munificans made *Durandel*, *Courtain*, *Mussagine*; Aurisas made *Bâptesme*, *Garbain*, and *Florance*.<sup>2</sup> A sword preserved in the Castle of Segovia in 1503 was reputed to be the *Joyeuse* ("una espada que se dice la *Giosa del Belcortar*"), but there it was attributed not to Charlemagne but to Roland.<sup>3</sup> In 1721 Du Cange saw at Saint Pharon de Meaux a sword supposed to be that of Ogier le Danois. It was also seen by Père Mabillon who had it weighed, and by Père Daniel who measured it. Besides *Joyeuse*, the armoury at Segovia in 1503 possessed other swords with names, the *Colada* and *Tizona* of the Cid, the *Lobera* of St. Ferdinand, and one called the *Bastona*. But this practice of naming swords was continued in more recent times. In 1383, in the accounts of Charles VI of France, there is a payment for a sword for the king called *Victoire*, the pommel garnished with enamelled gold with, on one side, an image of Our Lady, and on the other the arms of France. In 1411 we find the same king possessing "a little sword called *Victoire*, and on the pommel are a crucifix with Our Lady and St. John on one side, and on the other St. George and his maid" (the princess).<sup>4</sup> Yet another *Victoire* is found in the royal collection of arms at the Castle of Amboise in 1499, "an arming sword, garnished with white whipcord, and on the pommel is Our Lady on one side and a sun on the other, called *l'espée de la Victoire*." We can trace this sword again

<sup>1</sup> *Chanson de Roland*.

<sup>2</sup> *Roman de Fierabras*.

<sup>3</sup> Communicated by the late Count Valencia de Don Juan.

<sup>4</sup> *Inventaire de l'écurie du roy* (Victor Gay, *Glossaire Archéologique*, Paris, 1887, p. 646).

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in 1534 and 1634 in the treasury of the royal abbey of St. Denis: "A sword of Charles VII garnished in the centre of its pommel with two gold angels,<sup>1</sup> one with the sun and the other with Our Lady, and it is said by the monks that the said sword did not belong to Charles VII but to Joan the Maid."<sup>2</sup> It may be that these three *Victoires* were the same blade remounted at various times, or that Victoire was a name given to the sword worn by the king on certain special state occasions. In the inventory of Philippe le Bon of Burgundy in 1426 we also meet with "a little sword, longish, of silver gilt, called *La Victoire*, and it is in a long case of white silver." The duke likewise possessed another sword called *Taillade*, which is described in detail in his inventory, as well as a sword styled that of St. George, with a red jasper pommel decorated with silver, and on either side the arms of St. George, whilst his son, Charles the Bold, owned a war sword which was said to have belonged to Bertrand du Guesclin.<sup>3</sup> In the collection at Amboise were also a sword of Charles VII called *La bien aimée*, and "the good sword which Louis XI carried in his expedition against the Swiss in 1444, called *Estrefuse*, the grip of white whipcord, and on the long pommel is Our Lady on one side and St. Martin on the other." This sword was no doubt made at Tours, St. Martin being the patron saint of that city. That the desire to possess swords of renowned warriors existed even in the XVIth and XVIIth centuries, I have shown in a paper on ancient blades bearing contemporary spurious inscriptions, as one at Windsor with the name of the Cid, one at Madrid with that of Bernardo del Carpio, one of my own with that of Recared King of the Goths, and others in England with those of the Black Prince and the Bruce.<sup>4</sup> This cult for heroic arms would seem to have led to the formation of the earliest collections of arms and armour of which any record exists, and although it is said that Antony of Burgundy in 1406 began a historical collection at the Castle of Caudenberg at Brussels, which later went by the name of the arsenal, the earliest collection of which any details have been preserved was that formed by Charles VIII of France in the great hall of the Castle of Amboise,<sup>5</sup> an inventory of which was made shortly after his death, and it is rather maddening to the student and collector to think that of all it contained not one piece is known to remain to us. Amongst other armour and arms we find: the armour of Joan of Arc, with its arm-pieces and mittens, and the helmet with a gorget of mail, the border gilt, the inside garnished with crimson satin; the brigandine of Talbot, covered with black velvet all worn, and his black *salade* with its housing of embroidery on black velvet,

<sup>1</sup> Plaques of the size of an angel.

<sup>2</sup> *Inventaire du Trésor de St. Denis* (V. Gay, p. 647).

<sup>3</sup> Comte de Laborde, *Les Ducs de Bourgogne*, Paris, 1849-1851 (*Inventaires de Philippe le Bon et Charles le Téméraire*).

<sup>4</sup> Proceedings of the Society of Antiquaries, June 1900.

<sup>5</sup> "55 pièces de bougran rouge . . . pour la grande salle au château d'Amboise où étoit l'armurerie dud. feu S<sup>r</sup>" (*Compte de l'écurie du roy en 1498*, V. Gay, p. 71).

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also much worn;<sup>1</sup> a sword called that of Lancelot of the Lake, the hilt of iron fashioned like a key, and it is said to be an enchanted sword; the sword of the King of France who fought and vanquished a giant in Paris; the sword of the giant who was vanquished by the King of France in the Isle-Notre-Dame at Paris; the sword of the king who founded St. Denis (Dagobert); the dagger of Charlemagne with a rock-crystal hilt; battle-axes of Clovis, of the king who killed the giant, of St. Louis, of Bertrand du Guesclin, and others; the sword of Philippe-le-Bel; two swords of Charles VII, one called *La bien aimée*; a sword with the arms of Pope Calixtus (1455-58), which the late king (Charles VIII) caused to be put into his armoury; a sword called *La Victoire* (already described in detail); the sword of the King of Scotland given to Louis XI when he married Margaret of Scotland; a Papal sword sent to King Louis (XI?); the sword of Louis XI called *Estrefuse* (already described); the two swords used by Charles VIII at the battle of Fornova, one of which he carried at his saddle-bow; the sword with which Jean de Brézé<sup>2</sup> cut off the hand of a man-at-arms, gauntlet and all, besides other weapons described in the inventory.<sup>3</sup> I think this may be regarded as truly a collection formed by a sovereign personally interested in preserving relics of the past; for it is necessary to distinguish between the collection and the arsenal or armoury. During the centuries when armour was in use, every town, every prince, almost every castle had an armoury or arsenal. One of these, hidden away in an old castle in the Tyrol, contains armour so amazing that when I saw it some thirty-seven years ago it seemed to me more like a glorious dream than a reality. And it did not contain a single weapon, every arm of offence had been carried away or destroyed, presumably during the wars which raged in those parts in the time of Napoleon. I counted forty complete suits of armour, of which I should say nearly one half were of the XVth century, some being of an earlier type than any existing elsewhere. Two of them were admirable examples of the Italian XVth century make. There were four pig-faced bascinets, three of which preserved their camails and two were adorned with brass. One had its own breastplate, both pieces being decorated with brass on which were long inscriptions. There was a pair of gauntlets of the same epoch as the bascinets, likewise decorated with brass, and many cuisses, greves, and other detached pieces of armour of the XVth century. There were eighteen salades, some of them of rare early form, and four armets with roundels. Besides this, there were two jousting suits, a magnificent suit for man and horse of the beginning of the XVIth century with its tilting-pieces, and a very beautiful Italian decorated suit of the middle of that century. I describe it from a hurried note taken at the time, and I learn that now the owner, a great Austrian nobleman, guards it so jealously that no one may visit it.

<sup>1</sup> We have already seen what became of his sword, p. xxii.

<sup>2</sup> The noble family of Brézé in Anjou aided Charles VII in expelling the English from France.

<sup>3</sup> Marquis Léon de Laborde, *Glossaire Français du Moyen Age*, Paris, 1872, pp. 481-483.

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It would be very interesting to sketch the history and vicissitudes of the better known of these arsenals and armouries, but it would far outstrip the limits which the greatest indulgence might allow me at the present time; I may, however, be permitted to say something of those collections which were formed when armour was still in actual use. I should much wish to claim Charles V as a collector of armour, for although he collected mostly for his personal use, still he did cause his father's armour and other old pieces to be brought from Flanders. So great was his passion for it, that not only did he continually strive to obtain the finest made in his day, but it is reported that when he abdicated, the only worldly goods that he took with him to the monastery of San Yuste were his suits of armour, so that he might still gaze on the harness in which he had run courses in his youth as Duke of Burgundy, and the suit which he wore when, at the height of his fame, he won the battle of Mühlberg.

We next come to the greatest armour collector of all time, the Archduke Ferdinand Count of the Tyrol, himself a mighty jousting before the Lord. His tilting lance, still preserved at Vienna, is the biggest one known, being 15 inches in circumference at the vamplate, 14 feet 10 inches long, and weighing 39½ lb. He also, and I think greatly to his credit, set an example often followed since in the House of Hapsburg, and married a lady, not a princess, said to be the most beautiful woman of her time, and, from a pretty long experience of collectors, I should say that he was not the only man who has combined a taste for beautiful arms with a love for fair women. It was after the marriage of the Archduke with Philippina Welser, the daughter of a wealthy Augsburg patrician, that his father, the Emperor Ferdinand, presented him with the Castle of Ambras near Innsbruck, and it was there that about 1580 the Count of the Tyrol formed his collection of arms, which after remaining in the castle for more than two centuries was for the most part removed to Vienna. His dominating idea in forming this collection was to unite in it the armour of the most illustrious emperors, kings, princes, and great captains, and his father's and his own influence at the courts of Europe enabled him to obtain a series of surpassing interest. In 1601 a book was published at Innsbruck<sup>1</sup> illustrating the most important suits in the collection, and it is worthy of remark that the attributions there given to each one have with scarcely any exceptions been accepted by modern criticism. No other collection in the world, not even Madrid, possesses so great a number of authentic historic suits, besides which it is unrivalled in the amount of armour of the XVth century, German, Italian, Burgundian, and Spanish which it contains.

Although in many arsenals and armouries historical armour and arms were preserved and shown to the curious who visited them, the next collector of whom I find

<sup>1</sup> J. Schrenk, *Imperatorum, Regum, etc., imagines . . . quorum arma in Ambrosiane arcis armamentario conspiciuntur*, fol., Cniponti, 1601.

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mention was the Grand Condé. Alain Manesson Mallet, writing in 1672,<sup>1</sup> says: "I have not seen a magazine of arms so well furnished with every kind of sword as that of the Château de Chantilly, the *maison de plaisance* of Monsieur le Prince, for besides a vast number of *very ancient* swords, are many of all nations." Père Daniel also speaks of this *cabinet d'armes* in his *Histoire de la Milice Française* published in 1721, the first book which treated of the history of mediaeval armour and weapons.

I do not know of any collection of armour and arms formed during the XVIIIth century. The cultured connoisseur only sought for the remains of classical art, all things mediaeval were regarded as barbarous and *gothic*. But there was also a fashion for what were called *curiosities*, and in catalogues of collections of these things we sometimes find traces of fine pieces of armour. The passion was for anything odd and out of the way, and a helmet or breastplate of great merit might be found side by side with a Chinese idol, a unicorn's horn, or the skull of an extinct animal. In England, Walpole's novel, *The Castle of Otranto*, and his own pale attempt at a Gothic revival in the construction of Strawberry Hill, began to direct public taste to the relics of mediaeval times, whilst Grose's book on ancient armour and weapons,<sup>2</sup> excellent for the time when it was written, caused connoisseurs to turn their attention to them. Somewhat later we find several of the generals and officers of Napoleon collecting, or annexing, fine armour and arms for their military interest, but it was Sir Walter Scott's splendid series of historic novels and the subsequent romantic movement to which they led in many countries in Europe, that fostered the great passion for collecting the remains of mediaeval art which characterized the first half of the XIXth century and the consequent formation of numerous most important collections of arms and armour. It would be interesting to sketch the formation and vicissitudes of many of these, but the subject would need much more space than could possibly be conceded to me here.

\* \* \* \* \*

The great quantity of armour and weapons used, spoilt, and lost during the wars of the Middle Ages in every part of Europe was so immense, that every country, nay almost every city must have produced them, but of all these but little remains to us anterior to the middle of the XVth century, indeed not a single complete suit of armour dating before that epoch is in existence. Froissart delights in telling us how, on the morning of a battle, the sun glistened on the serried rows of burnished bascinets and lance heads, a description that makes the collector sick at heart when he reflects that of the thousands of burnished bascinets in use in the XIVth century, he may at best only meet with one in a woefully corroded and ruined state. Of course some places were especially famous for the armour and arms produced in them, and the names of

<sup>1</sup> *Les Travaux de Mars*, Paris, 1672.

<sup>2</sup> Francis Grose, F.S.A., *A Treatise on Ancient Armour and Weapons*, London, 1786.

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many of them have come down to us. It may be interesting to mention those I am acquainted with in chronological order, but first I will say something of the material of which armour and weapons were made.

Anyone who has carefully examined armour of the XVth and XVIth centuries, will have observed that there is a difference between the colour and texture of the metal in the finest German armour and that produced by the renowned Milanese craftsmen. This will be more particularly noticed by anyone who has had much to do with cleaning or polishing examples of the two. The Italian steel is usually darker in colour and more lustrous than the German. A similar difference will also be observed between the metal of a *true* Toledo blade and a Solingen imitation, and a Milanese blade is distinct in colour from a German one. This arises from the fact that the metal of which they were made came from different sources, and perhaps also from the various methods employed in smelting and converting the iron into steel. I may say in passing, that I think that it will always be found that where a great armour or arms industry arose, there was iron to be obtained not very far off. In former days the iron industry in Bavaria was much more important than it now is, and the great armourers of Augsburg, Landshut, and Nuremberg, as well as the sword-makers of Passau, were supplied by the mines of Sülzbach and Amberg, which places, as early as 1378, entered into a treaty with Nuremberg for the regulation of the iron trade. The Fichtelgebirge also supplied iron. The great sword blade industry of Solingen, from the XIIIth century downwards, drew much of its metal from the celebrated Stahlberg near Müsen in Siegerland (South Westphalia), and its mines still supply steel to Solingen. Iron also came from the county of the Mark and the Principality of Berg, where Count Adolf VII (1256-1296) had mining works undertaken between the Agger and the Drin. Austria at an early date obtained iron from the mines of Steiermark, Kärnten, and Krain, the chief centre being Erzberg, near Eisenberg, and in the XIIth and XIIIth centuries Trofajach and Judenburg were large iron centres. A smelting house on the Plahberge is mentioned in the Admont Chronicle as early as 1130.<sup>1</sup> Where the metal used by the Milanese armourers came from is well known. It was all mined in the mountains near the Lake of Como and the Lago Maggiore. About 1300 it was got from the Monte Trona, near Gerola, east of the Lake of Como; in 1331 there were smelting forges at Soglia, near Premana, and mines at Monte Varrone, near Introbbio in the same district. About the same time Azzo Visconti granted special privileges to the forges in the Valsassina, and there were forges at Introbbio, Premana, Valle Averara, etc., all in the same neighbourhood. In 1400 an iron mine, known later as la Pina, was discovered in the Monte Artino,<sup>2</sup> and in 1470 the men of Canzo, a little town between Como and

<sup>1</sup> Dr. Ludwig Beck, *Geschichte des Eisens, etc.*, Brunswick, 1884, and Rudolf Cronau, *Geschichte der Solinger Klingenindustrie*, Stuttgart, 1885.

<sup>2</sup> For all the above, Giuseppe Arrigoni, *Notizie storiche della Valsassina*.

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Lecco, let to Antonio Missaglia, the greatest Milanese armourer of his day, the woods and iron mines in the mountains hard by.<sup>1</sup> In 1498 there were iron works and also a manufactory of armour and artillery at Vogogna<sup>2</sup> on the road from the Lago Maggiore to the Simplon, and mines and forges existed in the Valsesia, the Valle di Macagno, and at Salasca,<sup>3</sup> all in the neighbourhood of that lake.

We may learn something of the way in which the iron, when obtained, was converted into steel for the armourer's use from an account of the old Catalan forges contained in an address on the Manufacture and uses of Steel, read by Sir Henry Bessemer at the Cutlers' Hall in 1880. "It may be instructive to pause just sufficiently to get a glimpse at the system of manufacture as pursued by the artificers in steel of that period when the Bilbao, the Andrew of Ferrara, and the famous Toledo blades were manufactured; for perhaps at no period of the history of steel was the skill of the workman more necessary, or more conspicuously displayed. The small Catalan forges used for the production of iron and steel at that period were scattered throughout the Spanish Pyrenees and the Southern Provinces of France. The ores selected by the manufacturer were either the brown or red hematites or the rich spathose ores still found so abundantly in Bilbao. This small blast furnace, some two feet only in height, was blown by bellows formed of the untanned skins of animals, trodden on alternately by the foot, the fuel being exclusively charcoal. It is important to remember that the ore reduced to the metallic state in the Catalan furnaces never becomes sufficiently carburetted to admit of its fusion, as is the case in all the blast-furnaces in use at the present day, but, on the contrary, the metal sinks down through the burning charcoal to the lowest part of the furnace where the lumps of reduced ore agglutinate and form an ill-shaped coherent mass, the various portions of which are more or less perfectly carburetted, so that while some portions of the lump might be classed as soft iron, other parts have passed through every grade of carburation from the mildest to the hardest and most refractory steel. The mass of metal thus formed, and weighing from 40 to 60 lb., is removed by simply pulling down a portion of the front of the furnace. It is then taken by the workman to the anvil, where it is cut into smaller pieces and sorted for quality; those portions judged by the workman to resemble each other most nearly are put together and, after re-heating, are welded into a rough bar. This again is cut into short lengths, which are piled together, welded and drawn out. By these successive operations the several thick lumps of which the bar was originally composed have been reduced to a number of thin layers, and at each successive heating of the stratified mass, that tendency which carbon has to diffuse itself equally results in the more highly carburetted or harder portions losing some of their carbon, which is absorbed by

<sup>1</sup> *Archivio Diplomatico* of Milan.

<sup>2</sup> Owned by the Duke of Milan. Ducal letter 1st December 1498 to Bartolomeo Albarini.

<sup>3</sup> Morigia, *Nobiltà del Lago Maggiore*.

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the less carburized or milder portions of the laminated bar; thus equalising the temper of the whole mass, and conferring on it a far greater uniformity of texture than at first sight would appear possible. It was clearly to the skill of the operator, and the exercise of an empirical knowledge acquired by long practice, that the world was in those days indebted for the excellent blades produced. Each piece of steel thus produced had its own special degree of strength and elasticity. The artisan continually tested it again and again, and if he found it too hard, he exposed the blade in the open air for many months to rust and get milder, or he buried some parts of it in charcoal powder on his forge hearth, and patiently waited many hours while he kept up a gentle fire under it, so as further to carburize the edge or the point as he deemed advisable, but without affecting the general temper of the whole blade; he had also his own special and peculiar mode of hardening and tempering, and, in fact, he impressed his own individuality upon a blade that might either save the life of a prince or change the destiny of a kingdom."

I quote at length this great authority on all that relates to steel, because his account of the method used in the Catalan forges appears to me completely to explain many of the peculiarities which I have observed in the metal of which the armour and weapons of the XVth or early XVIth century were made, during a long experience of cleaning and putting them in order. The great requirements in the steel for armour and weapons were, hardness combined with elasticity and extreme toughness, and those qualities, united in a very remarkable degree, exist in the finer examples of the XVth or early XVIth centuries which I have handled. Occasionally, however, one meets with a piece in which there is a distinct difference of hardness and elasticity in its various parts. This is a defect originating in a lesser carburization of some part of the metal of which it was made, and would be easily accounted for by the process of manufacture described above. It might be very advisable that the blade of a hafted weapon or a sword should be somewhat milder towards the haft or the hilt than at the point, and this could be easily attained by the process described by Sir Henry, but a breast- or back-plate should be of uniform texture, and it is in these that I have sometimes found defects of homogeneity. On the other hand I possess an Italian armet, the surface of which is so intensely hard that neither file nor emery will touch it, and the same intense hardness was observed in the English XIVth century helm of Sir Richard Pembridge, when it was exhibited at the Royal Archaeological Institute in 1880. Indeed, a study of the actual metal of which the best armour and weapons were made is a very interesting and instructive one, and it is strange that the later the armour, the poorer the material employed, until, in that used during the Civil Wars in England, it is sometimes little better than common iron.

There is a curious account of how to make a suit of armour in the rare little book by Juan Quijada de Reayo, to which I have already referred, and which internal

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evidence would show to have been written in the first years of the XVIth century. The author here says, that to be perfect, the material (*pasta*), of which it is to be made, should consist of two parts of iron to one of steel. This may have been the Spanish practice at that time, but certainly would not give the hardness found in Italian armour. Tomaso Garzoni, whom I have already quoted, has a chapter on the working of iron and steel for the manufacture of arms and armour, but he does not add anything very material to our knowledge. He insists on the necessity of well cleaning and heating the iron to be worked, with patience and skill, with the hammer, file, or wheel. Then there is an account of welding, soldering with copper and tempering with water, the juices of plants or oils, and of the colours to be given to steel on cooling, as silver white, golden yellow, blue, pavonazzo, called violet, and ash gray, also of the various materials employed for the purpose; of silver soldering a blade, of softening or hardening the metal, of polishing, and finally of etching designs on steel and the materials used for this purpose, but it would need more space than I have at my disposal to transcribe it all. I may say here, that where armour had to be made in large quantities for the equipment of armies, hammer mills worked by water were used for the rough forging, and it is known that they were also largely employed for the fabrication of sword blades. Some old hammer mills are still at work in the Apennines in Italy, and I have seen a lump of metal, cut off the end of an old steel railway rail, converted in a remarkably short time into a perfectly formed spade, with a varied thickness in its different parts and its socket for the handle, merely by shifting the white-hot metal about on the anvil under the blows of the mechanical hammer, the weight of the blows being regulated by a pedal under the foot of the workman. Of course several heatings were needed, and the edges were trimmed with shears. I have always been convinced that the ancient breastplates and crowns of helmets were forged from a lump, not from a plate, and, had the Italian workman I speak of been brought up to making cuirasses and helmets instead of spades, I feel sure he would have forged them with equal skill and expedition.

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I will now pass in review the various localities in which we know that armour and arms were made. In the Xth or XIth century swords of steel of singular excellence and sometimes admirably decorated with incrustations of silver and gold were produced in the north of Europe, Scandinavia, or Germany. The late Mr. A. L. Lorange, keeper of the Bergen Museum, considered that the blades at least, of those found in Scandinavia, were imported from some part of Germany. The names of the makers of some of these weapons appear on them, as VLFBERHT, REX, INGELRD, ROMARIC, RANVIC, ECKEHARDVS, which perhaps suggest a German origin.<sup>1</sup> In the second half of the XIIth

<sup>1</sup> The names of two Xth-century swordsmiths, Elfnoth and Wulfric, are found in the will of Prince Æthelstan.

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century we meet with a heaume of Pavia in Lombardy,<sup>1</sup> and swords of Pavia,<sup>2</sup> Friesland,<sup>3</sup> Valence,<sup>4</sup> but whether Valence in France or Valencia in Spain it is not easy to determine, and of Verdun,<sup>5</sup> which town at a very much later date gave its name to a special form of sword. At the end of this century, and early in the XIIIth, swords of Poitou steel ("d'acier trenchant cler Peitevin")<sup>6</sup> are referred to. Vienne in Dauphiné also produced swords,<sup>7</sup> and this manufacture must have existed for long, for it is mentioned by Rabelais in 1530, whilst de Villamont in his travels in 1588 speaks of the *martinets* or hammer mills there for forging sword blades, and as late as 1644 John Evelyn says, speaking of Vienne, "there are many other pretty buildings, but nothing more so than the mills where they hammer and polish the sword blades." A considerable number of blades inscribed VIENNA or VIANNA have come down to us, and probably they were made there, and not at Vienna in Austria. This important manufactory is referred to even as late as 1723. Great swords of Germany are mentioned about 1190,<sup>8</sup> and Joinville says that St. Louis in 1309 was armed with an "épée d'Alemaigne." It is probable that these swords were made at Cologne, for early in the XIIIth century we read of great swords of Cologne,<sup>9</sup> and in the inventory of J. de Saffres in 1365 occurs "Unam Spatam operis Coloniensis." In the old ballad of the battle of Otterbourne, Percy and Douglas fight "with swords of fyne Collayne."

In the XIIIth century we meet with a Bavarian heaume,<sup>10</sup> and a helmet of Aquileia is mentioned by two different writers.<sup>11</sup> Ibn Saïd of Grenada, who wrote about 1250, tells of the excellent weapons made in Spain. In Andalus, which is the name given to the kingdom of Cordova on coins of the period, arms, armour, and military equipments of all sorts, such as bucklers, swords, quivers, arrows, saddles, bits, bridles, and other harness were made, which surpassed those of any other country in the world. Murcia was renowned for its coats of mail, cuirasses, and all sorts of armour incrustated with gold, and at Seville richly ornamented swords were made, in no way inferior to those obtained from India.<sup>12</sup> In this century also we for the first time hear of two centres of manufacture of very great renown, Bordeaux and Milan. A passage in the *Chronicon Extravagans* of Fiamma proves that as early as 1288 Milan was already one of the most active centres for the fabrication of armour and arms in

<sup>1</sup> *Li Romans d'Alixandre*, p. 30.

<sup>2</sup> *Garin le Loherain*, vol. i, p. 60.

<sup>3</sup> *Li Romans d'Alixandre*, pp. 63, 133.

<sup>4</sup> *Ibid.*, p. 131.

<sup>5</sup> *Ibid.*, p. 122.

<sup>6</sup> *Chroniques des Ducs de Normandie*, vol. ii, p. 32; *Foulque de Candie*, p. 91; *Le tournoiement de l'antéchrist*, p. 28.

<sup>7</sup> *Chroniques des Ducs de Normandie*, vol. ii, pp. 27, 36.

<sup>8</sup> *Chroniques des Ducs de Normandie*, vol. i, p. 444, and *Guillaume Guiart*, verse 3630.

<sup>9</sup> *Le tournoiement de l'antéchrist*, p. 64.

<sup>10</sup> *Fierabras*, verse 1262.

<sup>11</sup> *Gaufrey*, verse 3837, and *Aye d'Avignon*, verse 519.

<sup>12</sup> Baron Davillier, *Recherches sur l'orfèvrerie en Espagne*, p. 16.

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Europe, a position which it held almost undisputed for quite two and a half centuries longer. "There are to be found in our territory immense numbers of workmen who make every manner of armour, as hauberks, breastplates, plates, helms, helmets, steel skullcaps, gorgets, gauntlets, greves, cuisses, knee-pieces, lances, javelins, swords, etc. And they are all of hard iron, polished so as to exceed a mirror in brilliancy. The makers of hauberks alone are a hundred, not to mention innumerable workmen under them, who make links for chain mail with marvellous skill. There are shield and buckler makers and makers of arms in incredible numbers. This city supplies all the other cities of Italy with armour and arms and exports them even to the Tartars and Saracens."<sup>1</sup> Most interesting in this passage is the proof that already in the XIIIth century armour of polished steel plate was extensively used in North Italy. In the next century we find evidence of the exportation of Milanese arms to France and England. Amongst the armour of Louis X in 1316<sup>2</sup> are two habergeons and a hauberk of Lombardy, and Robert de Béthune owned in 1322 a Lombard gorget. Christine de Pisan tells us<sup>3</sup> that Charles V provided himself, through his friendship with Bernabo Visconti, with a great quantity of habergeons, jazerans, and camails forged at Milan. In 1398 the Earl of Derby, afterwards Henry IV, sends messengers to Gian-Galeazzo Visconti to request a supply of armour of Milan for his proposed duel with the Earl Marshal. Visconti places his best harness at the disposal of the Earl's envoy. "Besides this, when the knight had examined and chosen from all the armours of the Lord of Milan, as well plate as mail, the said Lord of Milan voluntarily and to gratify the Earl, ordered four of the best working armourers in all Lombardy to go to England with the said knight, in order to arm the Earl to his wish."<sup>4</sup> In 1399 Philip, Lord Darcy, leaves to his son "unam loriam (hauberk) de Milayne." Weapons also were exported, for in 1365 Jean de Saffres owned a Lombard sword with the mark of the scorpion, which mark is still met with on Milanese hafted weapons of the end of the XVth century, and Eustache Deschamps a little later writes of "dondaines<sup>5</sup> et cousteaux d'acier qui à Milan se font." I must leave Milan for the moment to refer to Bordeaux, whence came the renowned swords and lance heads so vaunted by Froissart. It is in the middle of the XIIIth century that Henry III of England pays 40 livres for one hundred targes and one hundred lances made at Bordeaux by his order,<sup>6</sup> and about the same time we read, in a *Chanson de Geste*, that Milon d'Urgel carried a Bordeaux lance and shield.<sup>7</sup> Abulfeda (b. 1273, d. 1331), in his *Geography*, speaks of "Bordeaux, beyond Andalos

<sup>1</sup> Dottor Carlo Casati, *Le antiche fabbriche d'armi Milanesi*, in the *Perseveranza* of 1st and 3rd November 1871.

<sup>2</sup> Bibliothèque Richelieu, MS. français, 7855.

<sup>3</sup> *Les faits du roy Charles*.

<sup>4</sup> Froissart, bk. iv, chap. lxiii.

<sup>5</sup> *Dondaines* were large bolts for great cross-bows.

<sup>6</sup> *Rôles Gascons*, pub. par Fr. Michel.

<sup>7</sup> Gerard de Rossillon, *Chanson de geste*, ed. Fr. Michel, Paris, 1856.

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(Spain), in the land of the Franks, the swords of which place are celebrated." In Froissart alone there must be about twenty references to these famous weapons. "Short swords of Bordeaux, stiff and taper," were used in the famous Combat des Trente (1351). At the battle of Poitiers the Lord of Bercler "seized his sword, which was of Bordeaux, good, light and very stiff." In another place a lance (glaive) is described as having a Bordeaux blade, "broad and more sharp and cutting than any raisor." In a course run between Jean Boucmeil and Nicholas Clifford, they used lances well made of Bordeaux steel, and the Englishman's lance head, slipping off his adversary's breastplate, pierced his camail, which was of good mail, and entering his neck, cut the jugular vein, killing him. In a joust at Badajos, the Bordeaux lances "pierced the steel piece (*pièce d'acier*), the plates (*les plates*), and all the armour right to the flesh." At the jousts at Vannes in 1381 the combatants were armed at all points, with visor bascinets, glaives of good Bordeaux steel, and swords of Bordeaux. For a feat of arms in 1386 swords were provided, "which said swords were forged at Bordeaux, the edges of which were so sharp and hard that nothing could excell them." Again, in a fight with the Flemings, the long lances with sharp and cutting Bordeaux blades impaled the Flemings, notwithstanding their coats of mail. In 1370 Eustache Deschamps<sup>1</sup> speaks of "De males dagues de Bordeaux," and, about 1364, Cuvelier, a trouvère who wrote a metrical chronicle of Bertrand du Guesclin,<sup>2</sup> says, "Un escuier y vint, qui le conte lanca, d'un espoit de Bordiaux, qui moult chier li cousta." In 1378 the Infante Don Luis of Navarre pays six florins for a Bordeaux sword, a large price for those times;<sup>3</sup> and in 1398 Sir Thomas Ughtred bequeaths by will one short and one long Bordeaux sword.<sup>4</sup> The only name of a Bordeaux bladesmith of those days preserved to us is one Guilhem de Sauveterre *faure d'espadas*, working in 1382,<sup>5</sup> and, after the beginning of the XVth century, all references to these much-prized and formidable weapons cease. The last we are acquainted with date from 1401, when a Bordeaux sword was supplied to the King for 108 *sols parisis*, and seven big Bordeaux swords in the armoury of Charles VI in the Louvre were cleaned, polished, and put in good order,<sup>6</sup> and 1409, when a Bordeaux sword was cleaned by Mathys the "furbisher" to the Duke of Burgundy at Brussels.<sup>7</sup> My regretted friend, the late M. Giraud, himself a native of Savoy, basing his argument on a passage in Michel Montaigne's account of his travels in Italy in 1580-81, attempted to show that the famous Bordeaux swords and lances were made at Bourdeau, near the lake of Bourget in Savoy. That passage says: "After Chambéry is the Mont du Chat . . . at the foot

<sup>1</sup> Ed. Crapelet, p. 133.

<sup>3</sup> *Archivo de la Camara de Comptos de Navarra*.

<sup>5</sup> J. B. Giraud, *Les Epées de Bordeaux*, Lyon, 1895.

<sup>6</sup> *Comptes de l'écurie du Roy* (V. Gay, p. 647).

<sup>7</sup> E. van Vinkeroy, *Catalogue des armes et armures du Musée royal*, Bruxelles, 1885.

<sup>2</sup> Ed. E. Charrière, Paris, 1839.

<sup>4</sup> York Wills, p. 243.

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of which there is a great lake (Bourget), and by this a castle named Bordeau where are made swords of great renown." He was also able to prove that iron mines had been worked in that district at various times, but I hold that he failed entirely to prove that Bordeau in Savoy was the place of manufacture of the Bordeaux steel so famous in the XIVth century. In the first place we have the testimony of Abulfeda that the Bordeaux celebrated for its swords was beyond the territory of Spain, which presumably means over the border. Next, these blades are always described as of Bordeaux with a final *x*, and M. Giraud could not cite a single text in which Bordeau in Savoy is written with that letter. Again, Bordeaux in Guienne was as familiar to Froissart as Paris or London, and had he meant to speak of another place we should meet with some indication of it in his text. Lastly, M. Giraud could only show that towards the end of the XVth century swords of repute were made at Bordeau, but not a single mention of them could he find at an earlier date, and we have seen that all references to Bordeaux swords cease with the very first years of the XVth century, and then they only concern the putting in order of weapons that were probably already old. As for the steel used for these weapons, it no doubt came from the Pyrenean forges already described, and was thus very similar to the metal of which two centuries later the world-renowned Toledo blades were made. Bordeaux also produced armour, for in 1358 the Infante Don Luis of Navarre caused Bordeaux workmen to be brought into Navarre to make it.<sup>1</sup>

Armour or arms were made in several other towns in France during the XIVth century. In the inventory of Louis X in 1316 we read of seventeen swords of Bray, two of Verzi, and eight of Toulouse. Swords of Clermont are mentioned in 1370, and in 1383, Hennequin Duvivier mounts a Clermont blade in gold for Charles VI. Chambli, a town in the territory of Beauvais, was celebrated for its mail of various kinds, *de haute clouure*, *double*,<sup>2</sup> and *de demi clouure*.<sup>3</sup> "Haubers de Chambelin" are mentioned as early as the XIIIth century.<sup>4</sup> Montauban gave its name to a form of helmet which we meet with from 1302 to 1513. At the first of these dates we read of eight chapeaux de Montauban of fine gold (probably gilt with fine gold), and on each one are two shields with the arms of his Lordship and garnished with straps.<sup>5</sup> Monstrelet tells us that in 1416 the Emperor Sigismund was armed and bore at the pommel of his saddle a chapeau de Montauban, whilst when Henry VIII of England landed in France in 1513, he "wore on his hedd a chapeau Montabyn, with a rich coronal, the fold of the chapeau lined with crimson satin, and on it a rich brooch with the image of St. George."<sup>6</sup>

<sup>1</sup> *Archivo de la Camara de Comptos de Navarra.*

<sup>2</sup> *Inventaire de Louis X, 1316.*

<sup>3</sup> *Inventaire de Robert de Béthune, 1322.*

<sup>4</sup> *Proverbes et dictons populaires* (ed. Crapelet).

<sup>5</sup> *Archives du Pas-de-Calais, Comptes de Robert d'Artois.*

<sup>6</sup> Hall.

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This form of helmet is described in detail in the anonymous treatise of 1446 published by de Belleval.<sup>1</sup>

There must have been a considerable manufacture of helms both in Paris and in Brussels in the XIVth century. Froissart, speaking of the battle of Rosebecque, says that "if all the makers of helms of Paris and Brussels had been exercising their craft together, they could not have made such a huge noise as the combatants did striking on one another's bascinets." We know that there was a rue de la heaumerie in Paris, in the parish of St. Germain l'Auxerrois, and I have the names of about a dozen XIVth-century helm makers at Brussels. In the same century we also begin to know the names of a series of armourers and swordsmiths who worked for the dukes of Burgundy at Valenciennes, the capital of Hainaut, and they can be followed in the archives of that town until the second half of the XVIth century, but as yet no actual pieces have been identified as their work. Germany also in the XIVth century was producing armour of some repute, for in 1386 the Duke of Touraine bought three ells of fine linen of Reims to have a little doublet made to be sent to Germany as a model for a pair of plates to be forged for his person;<sup>2</sup> and in 1389, the Earl Marshal, when he had challenged the Earl of Derby, sent to Germany for his equipment. We have seen that the Earl of Derby sent to Milan for the same purpose. In 1302 Raoul de Clermont owned a sword of Genoa, and we also meet with Florentine swords in France in the XIVth century. In 1322 Robert de Bethune possessed a Florentine sword with its misericord, and a little Florence sword garnished with silver gilt, is found in the inventory of P. de Beausault in 1361. We also find two Bohemian swords, one of which suitable for hunting, in the inventory of Jean de Saffres in 1365. I shall not enter largely on the history of the manufacture of armour in England, for that subject has been ably treated by Viscount Dillon and Mr. Charles ffoulkes, but before leaving the XIVth century I must refer to a conviction acquired long ago when making a study of English sepulchral effigies,<sup>3</sup> which was, that not only did a very fine school of sculpture exist in England in the XIVth century, of which we can only get an adequate idea from them, as they alone escaped the ravages of the Reformation and the Puritans, which almost entirely swept away the religious sculpture of the period, but that armour of excellent quality, great elegance of form, and beauty of decoration must have been made in England in that century and the first years of the succeeding one. Later, when during the disastrous War of the Roses, armour had to be made in a hurry, the qualities I refer to are much less apparent, the armour was simply made to protect the wearer, without any thought of making it at the same time beautiful to look upon.

<sup>1</sup> René de Belleval, *Du Costume Militaire des Français en 1446* (Paris, 1866).

<sup>2</sup> *Compte royal de Guillaume Brunel* (V. Gay, p. 24).

<sup>3</sup> "English Military Effigies and their Relation to the History of Armour" (*Archaeological Journal*, vol. xliii, p. 327).

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This becomes very apparent if we compare the armour on English brasses and effigies of the second half of the XVth century with Italian ones of that epoch, whilst in the XIVth century they compare very favourably with them.

Froissart bears testimony to the skill of the London armourers: "Et en estoient armuriers en la cité de Londres moult ensoignés." Unfortunately, beyond a helm here or there, as that of the Black Prince and that of Sir Richard Pembridge,<sup>1</sup> which both confirm our chronicler's statement to the full, scarcely anything remains of their work. There is a curious entry in the accounts of Leeds Castle in 1367 for "haberiens" (habergeons) "bacenetts and paletts" bought at a fair at Tremhethe, in the manor of Charing, about eight miles from Leeds, and the hire of a cart to carry them to Leeds, also a cart to carry fifty jack and fifty doublets from Middleton (Milton, near Sittingbourne) to Leeds Castle, and for six carts carrying materials for making armour.<sup>2</sup> We need not wonder at armour being bought at a fair, when we remember that some of the rarest Flemish tapestries at Madrid were purchased by Charles V at a fair in Spain. Another interesting entry concerning English armour occurs in the accounts of Philip the Good, Duke of Burgundy, in 1438, for a pair of gauntlets of English fashion (*à la façon d'Angleterre*).<sup>3</sup> We have seen that English knights were mostly armed with Bordeaux swords in the combats described by Froissart, and it would appear that early in the XIVth century English swords were not of much worth, for in 1321 Edward II sent David le Hope to Paris to learn the method of making swords for battle.<sup>4</sup> In confirmation of what I said above about the decline in the quality of English armour towards the close of the XVth century, I may cite a passage in Brewer's *Reign of Henry VIII*.<sup>5</sup> Speaking of the military superiority of the trained Swiss who kept their arms in full trim, and whose only employment was war, he says: "Whereas the national militia . . . taken from the plough-tail, clothed in ill fitting and old fashioned habiliments which descended from father to son, badly cleaned and scarcely ever complete, must have presented a spectacle more ludicrous than formidable, as they took the field in rusty head-pieces and cumbrous body armour hastily patched together for the occasion. It is clear from the various unsuccessful attempts described in contemporary papers to prevent even armour furnished by the King from being pawned or purloined, that native troops were of small account in continental war." I believe that traces of this rough patching may be found on some existing pieces of late XVth-century English armour.

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<sup>1</sup> The steel of which this helmet is made is so lustrous that Sir Noel Paton thought it had once been silvered.

<sup>2</sup> *History and Description of Leeds Castle*, by Charles Wykeham, M.P., F.S.A., 1869, p. 119.

<sup>3</sup> Comte de Laborde, *Les Ducs de Bourgogne*, No. 1243.

<sup>4</sup> Wardrobe accounts, *Archæologia*, vol. xxvi, p. 343.

<sup>5</sup> Vol. i, p. 111.

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In the XVth century Milan first claims our attention, for all through the century it maintains its supremacy, and its activity in the industry of arms is immense. Not only did it supply the whole of Italy with its best armour, but it furnished other countries, France especially, with its productions and with its armourers. Of about fifty-five Milanese armourers of the XVth century whose names I possess, twenty-four were settled in France. Some idea of the position held by the great armourers at Milan may be gathered from the few facts we know concerning the Missaglias, who were pre-eminent amongst them. In 1435 Tomaso Missaglia is knighted by Filippo-Maria Visconti, and Francesco Sforza exempts him from certain taxes in 1450. In 1466 we have a curious relation of Francesco Missaglia's visit to the French King Louis XI, addressed to the Duke of Milan by his agent in France, Giovanni Pietro Panicharola. It states that in the previous month Francesco Missaglia had arrived to arm his majesty according to his taste, and that many times the King had caused him to go into his room by day and by night, even when he was going to bed, so that he might study his person and know his desires, and in what way his armour should be constructed so that it might not hurt him in any way, as his body was very delicate. The said Francesco was departing that day (27th April), and was to return with the suit of armour when made.<sup>1</sup> In 1492 the Venetian ambassadors, Contarini and Pisani, visited the house of Antonio Missaglia, son of Tomaso, and that visit is described by their coadjutor, Andrea de' Franceschi, in his *Itinerario di Germania*.<sup>2</sup> "The aforesaid ambassadors then went to see the house of an armourer called Antonio Missaglia, a rich man, who continually employs many men at great expense, who make suits of armour in his house. All over his house are suits of armour of every kind to the value of many thousand ducats. He furnishes almost every one with these arms." Towards the end of the century, when fire broke out in this house, Duke Ludovico il Moro himself directed the firemen who went to extinguish it.<sup>3</sup> That house I saw just before it was pulled down, and when, many modern additions having been removed, the beautiful pillars of its court with the Missaglia mark sculptured on them and the delicate terra-cotta decoration of its façade came to light, alas! only for a brief space of time. As before mentioned, we know of twenty-four Milanese armourers established in France in the XVth century. This immigration was not brought about, as might at first thought be supposed, by the Italian expedition of Charles VIII, for with the exception of a single armourer known to have been brought back by him, all were settled in France before that campaign. It would appear rather that this influx of Italian armourers was due to the initiative of Louis XI. We have seen him employing Francesco Missaglia to arm him in the spring of 1466. At that period Galeazzo Maria Sforza

<sup>1</sup> *Archivio diplomatico di Milano*, cited by Dr. Carlo Casati.

<sup>2</sup> MS: in the Biblioteca Trivulziana, Milan, cited by Dr. Carlo Casati.

<sup>3</sup> Wendelin Boeheim, *Werke Mailänder Waffenschmiede, Jahrbuch der Kunsthistorischen Sammlungen*, ix.

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was at the court of the French King, and it is very possible that Missaglia had come to France in his suite. It was there that Galeazzo learnt of his father's death and, two years later, he married Bona of Savoy, who had been brought up at the French court, and was sister-in-law to Louis XI. This view is further supported by an important document for the history of armour making, a petition from Jacobino Ayroldo, Milanese armourer to Louis XI at Tours, addressed to the Duke of Milan, Gian Galeazzo Sforza. It is without a date, but from a study of its contents it can be proved that it was written at the end of 1468 or the beginning of 1469. It states that the King of France, desiring to have some beautiful and excellent suits of armour made for himself and for his barons, lords and esquires, and not thinking the masters whom he has capable of carrying out his wishes, sent his armourer, Jacobino Ayroldo, with sealed letters<sup>1</sup> in his own hand to beg his lordship to be good enough to send back with him, the said Jacobino, twelve companions with their tools and instructions to make the suits of armour for his Majesty, and he offers to treat them well and to send them back to Milan when the work is done. Jacobino has presented these letters to the Duchess,<sup>2</sup> who has laid them before the secret council of the Duke, but as yet no reply has been received, although all the companions have already been found and only await the Duke's permission to depart. And Jacobino is of opinion that the only difficulty might be the jealousy of some armourers who think that it would cause a loss of profit to the town of Milan to let them go, whilst they really wish to have all the profit to themselves. That this is not true, for if the King sent the measures of himself and his nobles to Milan, and their persons could not be seen, nor their wishes as to how the harness should be made exactly understood, it would be a great trouble and fatigue to send them back if the King were not pleased with them. But by sending the companions with their tools, they will be able to see for themselves and arrange how the work is to be done. And when it is done they will be able to return to Milan, as did those who were sent to arm the glorious Dauphin,<sup>3</sup> and when the work was ended returned to Milan. And although in various parts of France are many armourers, the King and his barons are of opinion that they are not capable of doing what they desire done, and for this reason they have addressed themselves to his lordship, etc.<sup>4</sup> This petition once more bears testimony to the paramount position held by the armourers of Milan, and again proves the great importance that was attached to obtaining a perfect fit in armour. In illustration of this I may refer to an entry in the accounts of the Royal House of Spain in the next century, "for wax for making a model of His Majesty's legs, to be sent to Master Desiderius Colman for the armour he is engaged on."<sup>5</sup>

<sup>1</sup> *Letters* in the phraseology of the time means a letter.

<sup>2</sup> Bona of Savoy, sister-in-law of Louis XI.

<sup>3</sup> Louis XI before 1461.

<sup>4</sup> *Archivio diplomatico di Milano*, cited by Dr. Carlo Casati, *loc. cit.*

<sup>5</sup> Communicated by the late Count de Valencia de Don Juan.

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This great care in fitting armour to the person of the wearer will, to a considerable extent, explain a matter about which I have often been questioned. I have frequently been asked if existing armour does not prove that armour-wearing men were smaller than those of the present day, and the difficulty a modern man finds in getting into an ancient suit of armour is adduced in proof of this idea. Several factors have to be considered in answering the question. In the first place there is at the present day a considerable difference in the average size and build of a Spaniard or an Italian and an Englishman or German. Consequently it is not astonishing that an Italian or Spanish suit should be small for an Englishman. Next it is not usually about the shoulders, arms, or cuirass that the difficulty lies, but about the legs, especially about the greves. Now, in armour of fine make, the beauty of the outline of the steel greves is often remarkable, they seem as though the legs of the man who was to wear them had been cast in metal. They fitted quite closely to the leg from the knee to the ankle, and, as steel is absolutely unyielding, they could only be worn with comfort by the man for whom they were made. We have only to look at the delicately shaped greves of Charles V or Philip II at Madrid, the long-shanked ones of Francis I in Paris, and the great muscular but clumsier ones of Henry VIII in the Tower, to realize that the legs of each of these men had an individual form, and that no one of them could have worn the greves of the other. Amongst all the suits of armour that I have owned at different times, I only found one pair of greves that I could wear with any comfort. In modern stage armour, even the best, the greves look clumsy, for instead of being closely moulded to the legs of the wearer, they are made too large in order that they may be easy to wear. There is yet another very important factor in the question. The modern Englishman is essentially a walker, and consequently he develops large muscular legs. The men for whom complete armour was made hardly ever walked. What is the German *Ritter* but a rider, the French, Italian, and Spanish *Chevalier*, *Cavalliere*, and *Caballero* but a horseman! It is only in English that the title *Knight* has no connection with this idea, and merely means a strong active youth. When the knight had to go only a few hundred yards he did not walk, his mule or hack was always in waiting for him, none but the common folk went on foot. This is more easily understood when we remember the state of the streets and roads in those days. The consequence was that these men might be exceedingly broad in shoulder and strong in arm, but they developed the legs of a modern jockey or groom. And a peculiarity which I have noticed in the greves of much armour, when it is quite original and untouched, is their shortness in proportion to the height and breadth of the man. Many of the fine suits made at Greenwich in the days of Elizabeth are striking examples of this peculiarity in the build of the horseman of that day. Otherwise the English suits were made for men quite as big and powerful as the average English gentleman of the present day. I have referred to the individuality shown in the forms of certain historic

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suits, and I would wish to call attention to a point which has always seemed to me of surpassing interest in connection with them. We are all well acquainted with the features and the costume of Charles V, Francis I, Henry VIII, or Maximilian, from the admirable portraits of them that have come down to us; we know their complexion, their expression, even their favourite attitudes. But it is only by their armour that we can know their actual height, bulk, and build. No painted portrait can give us that. In the armour the man becomes palpable, and with a little imagination we can see him living inside it. We see Charles V rather slender and weakly, Francis I long of limb, exactly like the masterly word-portrait of him by Hall. "A goodlie prince, statlie of countenance, merrie of cheere, brown coloured, great eies, high nosed, big lipped, faire breasted, broad shoulders, small legs and long feet."<sup>1</sup> We can follow Henry VIII from a fine lusty young fellow in the beautiful armour sent to him by Maximilian in 1514, to a burly athletic man in the two suits for fighting on foot, and lastly we see him as an unwieldy fat one with a large girth, in the two suits, mounted on horseback.<sup>2</sup> The armour thus completes our knowledge of these remarkable personalities.

Of the Milanese armourers known to have been settled in France in the XVth century, ten were at Tours, eleven at Lyons, and three at Bordeaux, and besides these were some seven or eight others bearing Italian names. Several of them received letters of naturalization and founded families of armourers who can be traced for several generations. The descendants of Jean Merveilles of Milan,<sup>3</sup> who is found at Tours as early as 1425, were still practising the craft one hundred and sixty years later.<sup>4</sup> But it is not my purpose here to deal with the history of armourers, only with the making of armour. Under Louis XI, Charles VIII, Louis XII, and Francis I the court armourers generally resided at Tours. The names of nearly two hundred armourers living there in the XVth and XVIth centuries are known, so great quantities of armour must have been made by them. Much of it must have been of very fine quality, and although none of it has yet been identified, I think that a careful comparative study of existing armour in France might enable one to determine its characteristics and to differentiate it from that made in Italy, with which, however, it must have had a certain affinity.<sup>5</sup> A manufactory of armour, also conducted by two Milanese armourers, brothers, was started at Arbois in Burgundy under the auspices of the Emperor Maximilian. These armourers, known to have been working at Milan in 1492, contracted in 1494 to make in the town

<sup>1</sup> Especially before his suit of armour in Paris was hoisted on a horse with a bard that has no connection with it. <sup>2</sup> All in the Tower.

<sup>3</sup> At Milan we find a Giovanni Meraviglia in 1395 and a Jo. Marcus Mirabilio (Latin form), in 1492.

<sup>4</sup> Dr. E. Giraudet, *Les Artistes Tourangeaux* (Tours, 1885).

<sup>5</sup> I much suspect that a very fine suit for man and horse, attributed to Gaillot de Genouillac, Grand Master of the Artillery to Francis I, and lent to the Exhibition in Paris in 1889 by the Duchesse d'Uzès, would prove to be an example of the work of the armourers of Tours (now in the Metropolitan Museum, New York).

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of Arbois fifty war harnesses made after the fashion of Burgundy, consisting of armets, cuirasses, leg harness, one pair of grand guards, one pair of gardebras, and one of gauntlets. They appear to have worked at Arbois until 1509, and we find them again at Milan from 1524 to 1529.<sup>1</sup>

Armour of a different fashion from the Italian, but of very high quality and rare elegance of form, was being made in Germany during the last third of the XVth century, and Augsburg, Landshut, Nuremberg, and Innsbruck were the principal places of its production. Fine mail of Nuremberg is mentioned in a French document of 1488 as being purchased for the King,<sup>2</sup> and even in Italy the German fashion was becoming known, for in 1493 the Marquis of Mantua orders his treasurer to have made for him four or six breastplates of German fashion of various kinds as soon as possible.<sup>3</sup> There is a strange entry in the inventory of Charles VI of France in 1411 of a complete harness for man and horse made of Syrian leather, but whether it had been imported, or made of that leather in France, we cannot learn.<sup>4</sup> Paris during this century must have produced armour, for there is an ordinance of 1451 requiring that all white harness and brigandines should be stamped, those of proof with two marks and those of half proof with one.<sup>5</sup> In 1470 the city of Tours ordered punches for stamping all white harness and brigandines made or sold in the town, the punches being engraved with the arms of the city.<sup>6</sup> There must also have been a considerable manufacture of armour in Spain, but not much is known of it during this century except that a form of helmet resembling the chapeau de Montauban was made at Calatayud,<sup>7</sup> and took its name from the town. It is also known that there were armourers working at Marquina and Burgos<sup>8</sup> in the north of Spain and at Seville.<sup>9</sup>

Swords must have been largely fabricated in many places, but it was not until the XVIth century that the practice of signing the blades or inscribing on them the place where they were made became general, so that it is not easy to determine where they were principally manufactured in the XVth century. Some exist with the mark of Milan,<sup>10</sup> and that city no doubt produced them largely for Italy. Giovanni da Uzzano tells us the price of swords, probably ordinary ones, at Pisa in 1442: "Swords of Villa Basilica cost 208 florins the case and each case contains from 80 to 90."<sup>11</sup>

<sup>1</sup> Gelli e Moretti, *I Missaglia e la loro Casa* (Milano, 1903).

<sup>2</sup> *Compte de l'écurie du roi* (V. Gay, p. 695).

<sup>3</sup> Bertolotti, *Arti Minori alla Corte di Mantova*, p. 125.

<sup>4</sup> *Inventaire de l'écurie du roi* (V. Gay, p. 64).

<sup>5</sup> *Recueil des ordonnances; Statuts des Armuriers de Paris*, vol. xvi, p. 679.

<sup>6</sup> Grandmaison, *Archives de Tours*, vol. xx, pp. 268-9.

<sup>7</sup> *Documentos Inéditos para la Historia de España Armeria del Duque del Infantado*.

<sup>8</sup> Saez, *Monedas de Enrique III*, 1796.

<sup>9</sup> Gestoso, *Sevilla Monumental y Artística*, vol. i.

<sup>10</sup> De Cosson, On an Italian sword bearing an Arabic inscription of the XVth century (Proceedings of the Society of Antiquaries, 8th December 1892).

<sup>11</sup> Giovanni da Uzzano, *Pratica della Mercatura*, p. 181.

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In France swords of Montluçon are mentioned in 1465,<sup>1</sup> and M. de Belleval states, but on what authority I do not know, that those of Abbeville were in high repute. At a later date this town was celebrated for its firearms.<sup>2</sup> Passau in Germany, for long famous for its sword blades, was already making them early in the century, for in 1409 Mathys, the furbisher to the Duke of Burgundy, whom we have seen cleaning a Bordeaux sword at the same date, supplies a sword of Passau.<sup>3</sup> There is a rather curious entry in the accounts of the Duke of Orleans about this time for engraving *anew* the pommels of two swords and making a new grip: "II espées de Bordeaux, dont l'une est de parement, dont les pommeaux des II espées sont *gravés* et garniz à neuf et a l'on mise en l'une III ansnes de coustenère pour la pongnée,"<sup>4</sup> but entries for furbishing and putting into order armour and swords are by no means uncommon in mediaeval accounts.

In Spain, we know of Catalan swordsmiths working at the close of the XIVth century,<sup>5</sup> and early in the next Charles VI of France possessed two Castillian swords.<sup>6</sup> The anonymous treatise on military costume of 1446<sup>7</sup> speaks of "fueilles de Catheloigne" as a form of sword used by the coustilleux in France at that time, and describes them as "un pou longuetes et estroites et sont un bien pou voides." In the inventory of Charles the Bold of Burgundy we find "une espée longhe en manière de coustille plaine."<sup>8</sup> What the difference was between a coustille *un peu vide* and a coustille *pleine* is not clear. But the sword blades which were held in especially high esteem in Spain during the XVth century were those produced by the Valencian swordsmiths, and these craftsmen continued to make very excellent blades all through the XVIth century<sup>9</sup> sufficiently renowned for the Marquis of Mantua to provide himself with some in 1552 through his ambassador in Rome.<sup>10</sup> The names of two blade-smiths who worked at Granada for the last Moorish king, Boabdil, are also known.

\* \* \* \* \*

The XVIth century was the epoch of the very finest enriched armour and weapons, and during the first half of the century these often became works of very high artistic merit. The art of the painter as designer, of the sculptor as embosser, of

<sup>1</sup> H. Baude, *Bibliothèque de l'Ecole des Chartes*, vol. v, p. 112.

<sup>2</sup> *The Diary of John Evelyn*, sub anno 1643, and Villiers, *Journal d'un Voyage à Paris*, 1657, p. 22.

<sup>3</sup> Communicated by the late Conde de Valencia de Don Juan.

<sup>4</sup> *Louis et Charles d'Orléans*, par Aimé Champolion Figeac (Paris, 1844).

<sup>5</sup> *Revista de Gerona*, p. 233.

<sup>6</sup> *Inventaire de l'écurie du roy*, sub anno 1411.

<sup>7</sup> René de Belleval, *Du Costume Militaire des Français en 1446* (Paris, 1866).

<sup>8</sup> Comte de Laborde, *Les Ducs de Bourgogne* (Paris, 1849-1851).

<sup>9</sup> Archivo Municipal de Valencia.

<sup>10</sup> Bertolotti, *Le Arti Minori alla Corte di Mantova*, p. 142. See also, Rabelais, Bk. I, chap. viii.

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the goldsmith as decorator, were all called into requisition. It was at Milan that this artistic movement began and was carried to its highest perfection, and before long all the Courts of Italy and those of several other countries vied in obtaining the works of the great master armourers of that city. It is towards the close of the XVth century, in pieces coming from the workshops of the Missaglias and their kinsmen the Negrolis, that we first meet with the artistic decoration of armour. By this I mean decoration executed on the actual steel of which the pieces are made, for in the XIVth and earlier part of the XVth centuries richly ornamented armour is recorded and is met with on effigies etc., but this armour seems always to have been enriched by the use of superimposed ornament in other metals or in precious stones. It is true that on the wings of the knee-pieces of the statue of Gattamelata at Padua, by Donatello, finished in 1453, there is an ornament which, if the armour were of steel, could only be embossed decoration. Most curiously too, this ornament is such that if one met with the actual knee-piece in steel, one would certainly attribute it to nearly a century later. But there is absolutely no proof that any such embossed armour existed in reality at that date, and this enrichment, easy to execute in bronze, was probably only due to the artistic and strongly decorative sense of the great sculptor. Ornament apparently repoussé, so delicate and beautiful in design that it might have been wrought by a Negrolis half a century later, is also found on the armour of the kneeling statue of the General Vittorio Cappello, by Antonio Rizzo, set up in 1480 over the porch of St. Aponal at Venice. If armour thus embossed really existed at that date, not a single scrap of it has come down to us. The Milanese decoration of steel armour, and it is also found on sword blades of the same epoch, at first consisted of delicate and sobre etching and gilding, foliated scrolls decorating the rectilinear or spiral flutings and ridges, which in the XVth century had been designed, partly perhaps as ornament, but also to render the pieces stiffer without increasing their weight, and above all to deflect the point of a hostile weapon and guide it as it glanced off the piece. On the flat surfaces are also found occasionally figures of the Madonna, of Saints, or, but more rarely, of personages in the costume of the time, but all this used sparingly and with great sobriety. It has sometimes been supposed that Albert Dürer was the inventor of etching on steel, but it was certainly practised by armourers before Dürer began to take impressions from etched plates, and it was in taking these impressions that he showed his inventive genius. There exist two helmets which I should be tempted to regard as the earliest very richly decorated pieces of armour in existence, and, in contradistinction to those I have been speaking of, their whole surface is covered with ornament. These are two sallads at Madrid, one of Italian form, the other of German fashion, and both bearing the mark of the XVth century Negrolis of Milan. Owing to the Oriental character of the very rich design with which they are covered, they used to be attributed to Boabdil, the last king of Grenada. But it is now known that in the album repre-

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sending the armour of Charles V<sup>1</sup> they are described amongst "old things that came from Flanders." The probability therefore is that they belonged to Philip the Fair, Maximilian, or perhaps even Charles the Bold of Burgundy. The decoration is certainly by the hand of one of those semi-Oriental artists who have left us many richly executed dishes and bowls covered with similar designs, and this might tend to show that when they were decorated, Milan did not yet possess the school of engravers on steel to which I have referred, and that the Negrolis had to send to Venice for an artist to decorate them. I only hazard this supposition as a possibility, but no other piece of armour of their date at all like them is known to me.

The skill acquired by the workman in raising the ridges and flutings to which I have referred, probably led to the next step in the decoration of the metal, the embossing of decorative designs in the steel. These at first were used sparingly and would be further enriched by engraving, gilding, and the splendid blueing called by the Italians pavonazzo. I cannot recall any example of this decoration anterior to the close of the first decade of the XVIth century. Later on, when the designs on the metal had become much more elaborate and embraced all those subjects hitherto only presented in sculpture or painting, another art was called in to heighten their effect, and give them to a certain extent light and shade and colour. That was the art of azziminia or the inlaying of steel with gold and silver, an art that would appear to have come to Venice from the East, where it had long been practised. We are thus led up to the great masterpieces of the Negrolis, so many of which have been preserved to us, thanks to Charles V's passion for possessing quantities of the finest and most splendid armour possible, masterpieces that can only be properly appreciated at Madrid, and that were never surpassed either in their own day or at any later date. Their pre-eminence is due to the fact, that with the highest artistic fancy and perfection of technical execution, they show a reserve in the use of ornamentation which prevents them from ever appearing overloaded with it. Certain portions of the steel are always left plain and undecorated, the piece thus retaining its character of real defensive armour, whilst the decoration acquires a double value through its contrast with the plain parts. This finest epoch only lasted a short while and, by the middle of the century, there was a tendency to cover the whole surface of the piece with embossing which, however excellent in its workmanship, and that produced by Lucio Piccinino was of superlative merit, deprived the armour of its appearance of defensive strength.

My much regretted friend, Count de Valencia de Don Juan, once told me of a curious letter, preserved I think in the Imperial Archives at Vienna, written to Charles V by one of his doctors who, when he went to Milan, used to stay in the house of the Negrolis. He related that he had observed that whenever he stayed there, his gold

<sup>1</sup> Preserved in the Royal Library at Madrid.

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ring turned white, and that after he had left, it slowly regained its proper colour. At first he had attributed this to a spell thrown on him by some evil spirit, but, on reflection, he had come to the conclusion that it was due to the vapour of the quantities of quicksilver used in gilding the armour.

Almost contemporary with the Negrolis, a formidable rival arose at Augsburg in Germany in the person of Desiderius Colman of a family of armourers already celebrated in the XVth century, and the finest of his works were also made for Charles V. The Colmans were already working for the Court of Mantua as early as 1511, and it is probable that the young Desiderius had been able to see and appreciate the works of the Negrolis in journeying to and from Italy. Still, his taste in design never approaches that of the Milanese masters. By the middle of the century many other armour-making centres in Germany, as Landshut, Nuremberg, Innsbruck, and rather later Dresden, produced admirable armour, both embossed and engraved and gilt, this last being often of the highest merit. In Italy, isolated artists at various ducal courts, such as Mantua and Urbino, were also making very remarkable pieces.

Another school of embossers and inlayers of whose technically perfect work many examples still exist, appears to have arisen in France, its head-quarters being probably in the Louvre, and its productions being largely inspired, as regards their design, by the school of Fontainebleau. So remarkable are the finest of these pieces that they used generally to be attributed to Benvenuto Cellini, until some years ago I claimed a French origin for them,<sup>1</sup> a claim now generally admitted. In England, in the days of Elizabeth, we meet with an excellent school of armourers, apparently established at Greenwich, and many works emanating from it have now been identified. Its productions, which derive more from the German than from the Italian school, have a very distinctive character of their own, but they have been so ably studied by Viscount Dillon<sup>2</sup> and Mr. Charles Foulkes<sup>3</sup> that I only refer to them in passing. During the last quarter of the century a rapid decline in the armourer's art is apparent, and that produced in the XVIIth century is altogether debased. Even at Milan richly ornamented armour became simply an article of manufacture and lost all artistic merit.

The statutes of the *University* of the armourers of Milan in 1587 have been preserved and are rather instructive. In these it is ordained that no armourer may open a shop unless he has practised his art for eight years without intermission, that he must present a trial piece to prove his ability, and that on admission he must register his punch mark or his *granatura*, so that it may be known by whom the pieces were made and Milanese work be known from Brescian. *Granatura* is a goldsmith's term for a grained, pearly, or milled edge. What this particular form of signature was, has yet to be

<sup>1</sup> De Cosson, *Le Cabinet d'Armes du Duc de Dino* (Paris, 1901, pp. 32-4).

<sup>2</sup> Viscount Dillon, *An Almain Armourer's Album* (London, 1905).

<sup>3</sup> Charles Foulkes, *The Armourer and his Craft* (London, 1912).

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studied. He was not to change his mark once it was registered, he was prohibited from combining together pieces of Milanese and other makes, and was obliged to declare whether the goods he sold were Milanese or Brescian. The formidable nature of the Brescian competition at that epoch is clear from all this. Similar statutes of the Universities of the Sword makers and the Lance makers of about the same date are cited by Casati.

In the XVIth century the fabrication of swords increased to an immense extent owing to a very great change in fashion and custom which took place about the end of its first quarter. Before that time, with few exceptions, when it was an emblem of state or authority, the sword was exclusively a weapon of war, and was not worn with everyday civil dress. If a man had a right, or needed to be armed, he carried a dagger. But after about 1525<sup>1</sup> the sword became a portion of the everyday costume of every gentleman, or person professing to be one, and, in consequence, the demand for this weapon became enormous. It would be an interesting study indeed to examine into all the changes brought about by this new custom in the manners, intercourse, and even the language and literature of the time, with its attendant rage for duels, its Italian fencing masters, and its new codes of honour.

Milan, of course, produced and exported blades for hafted weapons and swords and daggers of excellent quality. In 1520 Henry VIII purchased one thousand "Myllen" swords for a tourney at 4s. each.<sup>2</sup> Cicogna, writing about 1583, says that in his day the workshops of the swordsmiths were situated in the Castle of Milan,<sup>3</sup> and the Piccininos, father and son, both use a castle as the mark for their blades. That there was a distinct fashion in Milanese sword hilts is shown by a payment to Guillaume de Lesac in 1607,<sup>4</sup> "pour une épée ayant la garde à la milanoise." Cicogna also mentions some famous swordsmiths of Brescia, sons of an armourer and bladesmith, whom we learn from another source had made a very beautiful suit of armour for Charles V, a fine estoc for Francis I, and who practised "a singular and unique method of tempering steel."<sup>5</sup> Brescia soon became a very important centre of manufacture, especially for firearms, and, in the XVIIth century, seems to have held in Italy the supremacy that had belonged to Milan in the previous one, so much so, that when the Republic of Venice in 1668 wished to present a suit of armour to Louis XIV, it was not a Milanese but a Brescian artist who was commissioned to make it. It is well known how Mr. John Evelyn in 1646 purchased a fine carbine of old Lazarino Cominazzo at Brescia, and he says that the city consisted mostly of artists, every shop abounding in

<sup>1</sup> A portrait by Moretto of Brescia, dated 1526, in the National Gallery shows a gentleman in civil dress wearing a sword (No. 1025).

<sup>2</sup> Viscount Dillon in *Archæologia*, vol. li, p. 245.

<sup>3</sup> Cicogna, *Trattato Militaire*, Venezia, 1583.

<sup>4</sup> *Comptes royales de P. Leroux* (V. Gay, p. 648).

<sup>5</sup> *Vago e curioso ristretto dell' historia Bresciana del M. R. P. Maestro Leonardo Cozzando* (Brescia, 1694).

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guns, swords, armourers, etc. He adds a very curious statement that "most of the workmen came out of Germany" and M. Barbet de Jouy<sup>1</sup> identified the Garbagnaus who signed the suit made for Louis XIV with the German, Franz Garbagnaner, who worked at Brescia till 1688.

Cicogna also says that at Gron in the territory of Bergamo there were excellent swordsmiths, and that at Monte della Madonna, in the territory of Vicenza, Maestro Lorenzo da Formigiano, surnamed il Zotto (the dolt), made arms marvellous for their excellence. Not a few blades bearing his name still exist. It would appear that the Republic of Venice drew its supply of weapons chiefly from Serravalle in Friuli, north of Venice,<sup>2</sup> and from Belluno, a few miles north of Serravalle. It was at Belluno, at the forge or foundry of Messer Giovan Battista, surnamed il Barcelone, that the brothers Andrea and Gian Donato dei Ferari made admirable sword blades in the XVIIth century.<sup>3</sup> It was no doubt in the workshops of these two places that the blades of the swords known as schiavonas were made. This type of sword was already known by the name of schiavona as early as 1526, for in that year the Marquis of Mantua sent two schiavonas well garnished and with good blades to his ambassador at Milan to be presented to the Marquis del Guasto, with excuses for the delay in getting them, as he had had to send to Venice for them, and these two were held to be the best that could be obtained there.<sup>4</sup> In 1595 a sword was purchased for Henry IV of France with a very rich hilt and "la lame esclavonne."<sup>5</sup> I think that there can be no doubt that these Venetian schiavonas, with blades by Andrea dei Ferari of Belluno, were the prototypes of the basket hilted Andrew Feraras of the Scots, but I have always doubted whether many, if any, of the numerous blades bearing that name found in Scotland and England at the present day, and many of them are blades of very high quality, were made in Italy. I imagine that the name Andrea Ferrara became amongst the Scots a sort of guarantee of excellence, and was inscribed on many blades made for Scotland just as *cast steel* is inscribed on tools. This name, too, is found in conjunction with a great variety of punch marks, many of which bear a strange resemblance to German ones. Indeed one blade is known inscribed Andrea Ferrara Solingen,<sup>6</sup> evidently made there for exportation to Scotland. The south of Italy does not appear to have produced arms to any great extent, but we learn from the inventory of the Duke of Albuquerque in 1560, that those round convex wooden bucklers, painted with classical subjects in gold on a black ground, which exist in many collections, were made at Naples. "A round Neapolitan

<sup>1</sup> Barbet de Jouy, *Le Musée des Souverains* (Paris, 1866).

<sup>2</sup> Cicogna, *op. cit.*, and Tomaso Garzoni, *Piazza Universale di tutte le Professioni del Mondo* (Venice, 1585).

<sup>3</sup> Garzoni, *op. cit.*

<sup>4</sup> Bertolotti, *Le Arti Minori alla Corte di Mantova*.

<sup>5</sup> *5<sup>e</sup> Compte du Roy de P. de Labruyère* (V. Gay, p. 648).

<sup>6</sup> *On Andrea Ferrara Swords*, by George Vere Irving, F.S.A., Scot. V.P., and W. W. Faulder, in his preface to the Catalogue of the Exhibition of Industrial Art at Ancoats, 1881.

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shield, all gilt with many roman subjects. . . . Another round Neapolitan shield all painted and gilt with a battle. . . . Another round shield of fig-tree wood with Neapolitan painting in gold and black.”<sup>1</sup> In the XVIIth century many cup-hilted swords and left-hand daggers of Spanish fashion, the hilts elaborately pierced and chased with scrolls, foliage, flowers, and birds were made for Spanish grandees by Neapolitan artists whose signatures are sometimes found on them. Naples and Sicily were at that time under the dominion of Spain, and I have met with two pieces signed by sword makers of Palermo.

Two great blade-making centres, not much heard of before, come to the front in the XVIth century, Toledo and Solingen, and that industry has not yet ceased in either place. I cannot find exactly when or how it began at Toledo. It is said that one of the bladesmiths of Boabdil, to whom I have already referred, on the fall of the kingdom of Grenada, became a Christian and worked at Saragossa and at Toledo, and possibly that was the origin of this industry destined to become so famous all over Europe. We are acquainted with the names of about one hundred Toledan bladesmiths, and all through the XVIth and a part of the XVIIth centuries they produced blades of marvellously fine quality and temper. So great was the reputation of these blades that it led to the production of innumerable imitations in Italy, and especially at Solingen, but true Toledo blades can always be recognized by certain peculiarities in their make and section, and also by their very fine lettering, each letter being made up by the use of several punches forming curves, straight lines and dots, triangular or diamond shaped, and these dots play a large part in the formation of the letters. Swords were also fabricated in several other places in Spain at the period I am speaking of, for Navagero in 1524<sup>2</sup> says that very good ones were made at Toloseta in Guipuzcoa, and that the waters of the Oris, which passed there, were excellent for tempering steel, and their fame was known even in France, for Davitz in 1627<sup>3</sup> says that much money was earned in Guipuzcoa with swords made at Toloseta, and that Bilbao in Biscay exported many. They are again mentioned by Mendez Silva in 1645,<sup>4</sup> and he also speaks of Mondragon as a place where arms of all sorts were made. There is in the archives of Simancas a document of 1516 which names those places in Biscay where armour and arms were made, and it speaks of ten localities in the neighbourhood of Marquina as producing them, besides which outside Biscay, at Peñacerrada, there were twenty good workmen who with their assistants could construct 400 suits of armour for infantry each month, and these of excellent quality, as the iron and steel were better than anywhere else and the workmen more skilful with the hammer. The inventory of the Duke of Alburquerque

<sup>1</sup> *Inventario del Duque d'Alburquerque* (Madrid, 1883, pp. 75-76).

<sup>2</sup> Navagero, *Viaje por España*, 1524.

<sup>3</sup> Davitz, *Etats, empires et principautés du monde*, 1627 (V. Gay, p. 647).

<sup>4</sup> Mendez Silva, *Provincia de Viscaia, Poblacion general de España*.

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in 1560 mentions a coursing helmet of Saragossa, a jazeran skirt of Lumberque, and a cabasset of Segovia, and a Barcelona buckler is found in the inventory of Puymolinier in 1564. At Solingen, as at Toledo, the blade industry was carried on by a great number of workmen each working independently in his own workshop, and they went on from father to son down to the beginning of the last century.<sup>1</sup> The output of Solingen was immense. In the XVIIth century it supplied vast quantities of blades to Spain for the cheaper and commoner swords mounted there, made more or less on the Toledan model and with inscriptions more or less incorrectly written in Spanish, but inferior in make and finish to the Spanish ones. Not a few Solingen blades, too, are found in English hilts. Some blades, however, of very fine quality were made at Solingen, those signed by Clemens Horn at the end of the XVIth century being especially remarkable and not unfrequently found in swords mounted for princes and great personages in other countries. In the XVIIIth century Solingen appears to have supplied almost the whole of the small sword blades used in Europe, each country mounting them according to its taste. In France also there were many sword makers, some of whose names have been preserved to us. Jodocus Sincerus in 1549<sup>2</sup> says that very elegant sword hilts were made at Bar-le-Duc, whence it was rare that those who passed there did not buy some, a statement repeated by Du Verdier in 1662.<sup>3</sup> A great number of armourers are known to have lived at Grenoble towards the close of the XVIth<sup>4</sup> and during the XVIIth centuries, and they probably dealt in the weapons which were made at Annecy<sup>5</sup> and at Bourdeau in Savoy. Those of Annecy are mentioned as early as 1518. Bayonne was celebrated for its daggers and poinards, and gave its name to the bayonet. In 1655 we read: "A présent on y fait de meilleures dagues qu'on appelle des bayonettes ou des bayonnes simplement."<sup>6</sup> In 1536 Antwerp was doing a great trade in arms, for we learn that when the Emperor Charles V was sending a fleet to Copenhagen at that date, almost all the war material necessary for the crews and the expeditionary force was purchased from four merchants of that city who furnished the armour for the infantry, war swords, the gilt partisan of the Admiral, 25 suits of armour for the officers of his household, 25 suits for the captains, and 1,000 suits for the foot soldiers, each with its *secrete* or steel skull cap, several thousand pikes and javelins with fine Gorcum heads and 450 haquebuts.<sup>7</sup> Holland, too, produced armour of which some examples can still be identified in collections. As late as 1641 we find Mr. John Evelyn bespeaking a suit of horseman's armour at the Hague, which

<sup>1</sup> Rudolf Cronau, *Geschichte der Solinger Klengenindustrie* (Stuttgart, 1885).

<sup>2</sup> Jodocus Sincerus, *Itinerarium Galliae* (Amsterlodium, 1649).

<sup>3</sup> Du Verdier, *Le Voyage de France*, 1662.

<sup>4</sup> Edmond Magnien, *Les Artistes Grenoblois* (Grenoble, 1887).

<sup>5</sup> J. le Saige, *Voyage en Terre-Sainte*.

<sup>6</sup> Borel, *Tresor des recherches et antiquités gauloises*.

<sup>7</sup> E. van Vinkeroy, *L'Art ancien à l'Exposition Nationale Belge* (Bruxelles, 1881).

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he caused to be made to fit him. In 1582 a certain Hew Vans, whose name would suggest a Flemish or Dutch origin, *Dalmascar* or damascener at Edinburgh, was "ordained" not to buy sword blades to sell again, as the business of a dalmascar was the decoration of iron and steel. In 1581 another dalmascar was admitted. Up to that time Hew Vans had been the only one, and his essay was "a pair gairdes dalmash'd and gilt with lief gold." Two years later Robert Lyal, gairdmaker, was admitted, his essay being "a pair skellit gairds and ane pair ribbit gairds." In 1590 the armourer's essay was "a great hit sword." In 1600 it was changed to "an mounted braid sword sufficiently wrought," in 1616 it was "an mounted sword and scabbard," and in 1653 "an mounted sword with a new scabbard and an Highland gaurd."<sup>1</sup> The late Lord Archibald Campbell once told me that Islay in Scotland was famous for its armourers, but on what authority I do not know.

I will close this survey of the places where armour and weapons were made by mentioning two manufactories of sword blades that are known to have existed in England in the XVIIth century. One was at Shotley Mill in Northumberland, and was started by Germans,<sup>2</sup> no doubt from Solingen. The only piece I can identify as having been made there is a plug bayonet, formerly in my possession, inscribed SHOTLAV. BRIDG., the punch mark being a half moon with a face. The second factory was at Hounslow. A good many blades exist bearing the inscription me fecit Hunsloe, or Hounslo, or Honslo, and Mr. Seymour Lucas possessed one inscribed IOHANN KINDT HVNSLAWE 1634, and Mr. Fenton owns one with IOHAN KINNDT HOVNSLOE 1635. Now a Johannes Keindt or Kind is known to have been working at Solingen in 1620,<sup>3</sup> and is probably the bladesmith who started the Hounslow sword manufactory. Mr. Waring Faulder possessed a blade mounted in a chased basket hilt of the time of Charles I, inscribed IOANNES HOPPIE FECIT. GRENEWICH ANO 1634.<sup>4</sup> The Hoppe family is known to have worked at Solingen from 1580 to 1780,<sup>5</sup> so this bladesmith, who dates his blade in the same year as one of Johann Kindt's, probably came with him to England when the Hounslow factory was being started.

It would appear that a certain Benjamin Stone, blade-maker of Hounslow Heath, was the owner of this manufactory, for in 1636 he stated that he had at his own charge of £6,000 perfected the art of blade-making and that he could produce "as good as any that were made in the Christian world."<sup>6</sup> Part of this expense was, no doubt, due to his having brought over Solingen masters to teach their method of making blades.

<sup>1</sup> Hammer-men of Edinburgh, *Archæologia Scotica*, vol. i, p. 170.

<sup>2</sup> *A History of Northumberland*, issued under the direction of the Northumberland County History Committee, 1906.

<sup>3</sup> Rudolf Cronau, *op. cit.*

<sup>4</sup> Egerton Castle, *Schools and Masters of Fence*, Pl. IV, No. 21.

<sup>5</sup> Rudolf Cronau, *op. cit.*

<sup>6</sup> Charles ffoulkes, *The Armourer's Craft*, p. 60.

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From all that precedes, we can judge of the very great extent and importance of the manufacture of armour and arms in the Middle Ages, and at the time of the Renaissance; what a continual commerce and interchange in them existed between different countries, and also how great was the exportation of them from certain important centres of manufacture, especially from Milan. The names have been preserved of a number of Lombard and other Italian merchants who dealt in them in France; we have seen that Henry VIII bought a thousand Milan swords; Brantôme speaks of the purchase of armour in large quantities at Milan for use in France, and a record has been preserved of the arms imported from Italy at Lyons from the 18th of August 1569 to the 21st of November of the same year. They consisted of: 258 dozen sword blades besides 12 bales of blades from Piedmont, 185 pair of pistols, 898 morions, 37 corselets, 22 light suits of armour, and 13 shields, besides arquebus barrels by the case, to be mounted in France, and scabbards and powder flasks in great quantities.<sup>1</sup> If we examine the accounts of royal and princely houses, we find that very large sums, indeed were expended on armour and arms, especially on the splendid artistic productions of the XVIth century, and even the commoner forms of armour and weapons, when they had to be purchased by the thousand for the equipment of an army, must have represented what, for those days, was a very large expenditure. It is not astonishing therefore that the most important centres of their production became rich and prosperous, and there is evidence that the great master armourers of Milan and Augsburg became persons of wealth and importance, much as do our merchant princes, great manufacturers, iron masters and shipbuilders in the present day. We have an account of the richness of the paintings which adorned the interior of the Negrolis palace near the Porta Cumana at Milan in 1584,<sup>2</sup> and later, when the trade in arms had almost died out in that city, these Negrolis became Marquises, and bore for their arms the very mark which they had stamped on the armour which they made as far back as the XVth century, the cross keys with the bits downwards, instead of upwards as in the Papal arms.<sup>3</sup> Matteo Bandello, the licentious novelist, who died Bishop of Agen, has left us a description of the wealth of Milan at the time when its trade in arms was at its highest. "You must know that Milan is at the present day the most opulent city in Italy, and the one where the table is best furnished and most succulent. Besides its greatness, which equals that of several other cities put together, it boasts a great number of very rich gentlemen, each one of whom would suffice to render another city illustrious, and if a hundred Milanese gentlemen

<sup>1</sup> J. B. Giraud, *Documents sur l'Importation des armes Italiennes à Lyon* (Lyon, 1885), where an immense importation in 1513 and many other smaller ones are mentioned.

<sup>2</sup> *Discorso di Alessandro Lamo intorno alla Scultura et Pittura, etc., dall' Eccel. e Nobile M. Bernardino Campi Pittore Cremonense*, 1584.

<sup>3</sup> J. B. Rietstap, *Armorial Général*, vol. ii, p. 302.

## INTRODUCTION

with whom I am acquainted were in the realm of Naples, they would all be barons, marquises, and counts, but the Milanese in every matter think more of well-being and good cheer than of making a show. They are also all very devoted to beautiful women, of whom there are great numbers, and more addicted to the pursuit of love than those of any city that I know, and the ladies receive their attentions with infinite pleasure. For this reason, we all day long see troops of gentlemen of all sorts on splendidly caparisoned mules, on fast slim Turkish horses, on light fleet barbs or spirited genets, on fierce coursers or on quiet hacks, with every day new fashions of dress passing here and there, so that they seem like bees seeking to cull honey from the flowers. One also sees many carriages, gilt and covered with richly embroidered stuffs, drawn by four spirited horses, so that it would seem that one were beholding the triumph of an emperor, and within the carriages are seated the loveliest women, who go up and down the city disporting themselves."<sup>1</sup> Such was Milan in the days of its greatest armourers, the Negrolis.

\* \* \* \* \*

When you suggested, dearest Guy, that I should write an introduction to your book, you allowed me the fullest liberty to discourse on arms as my fancy might prompt me, and I fear that I have greatly abused that latitude. If my passion for the subject has led me to digress much and to stray from the more serious side of my theme, from dusty archives and tedious inventories, to the genial tales of old-time novelists, I have ever striven not to encroach on what I considered would be your part of the work, and I trust that I have succeeded in this endeavour. But even if I have digressed much, I have kept one purpose constantly in view. I have sought to show, as I have myself always felt, that armour and arms are not merely a matter for dry archaeological investigation, occasionally interesting to the painter or the costumier, but a far larger and more many-sided subject than has generally been supposed, intimately connected as they were with the life, the customs, the arts, the industry, and the commerce of many peoples in Europe during the Middle Ages and the brilliant epoch of the Renaissance, indeed until, towards the middle of the XVIIth century, the great development in the use of firearms completely changed the methods of warfare.

And now I will only wish your book God speed! and may it lead others to feel, as you and I do, how deeply interesting is the study of the evolution and history of arms offensive and defensive in past times.

CHARLES ALEXANDER DE COSSON.

FLORENCE, *July* 1919.

<sup>1</sup> Matteo Bandello, *Le Novelle*, parte ii, novella viii.



A RECORD OF  
EUROPEAN ARMOUR AND ARMS  
THROUGH SEVEN CENTURIES

CHAPTER I

GENERAL HISTORY OF ARMOUR AND ARMS, PRIOR TO THE NORMAN  
CONQUEST, A.D. 1000—1070



IF we were to follow the usual custom employed by those who have written on the evolution of arms and defensive armour before us we should take the very earliest records as the foundation of our story, and the weapons of prehistoric man, his stone-axe, his spear-head and arrows would occupy our attention in the initial chapter. We should follow by relating all the information obtainable respecting the weapons used throughout the many centuries that passed between the bronze age and the period preceding the Christian era, when the armourer's craft reached a very high state of perfection; and we should not leave unmentioned the beauties of the Etruscan helmet or of the Greek's crested head-piece, nor omit descriptions of the many Greek, Roman, and Gallic armaments that the hand of time has spared to be discovered in such plenty. We shall, however, leave these subjects behind us, and begin to unravel the skein of our story at a point late in the history of the world.

It would be difficult, almost impossible, to select any one given year and describe definitely the arms and armour in use at that juncture, and with these uncertain data to enter upon our story of evolution. We must take a date—we have chosen the year A.D. 1000—and there look about us, making survey of what evolution and necessity have then already taught the armourer. Thenceforward we may attempt to carry the unbroken history of the craft.

We begin slowly, halting in the tale. Records of this age are few; already the writers who deal with arms and armour have made most of them over familiar to antiquaries. So it is, that with the best will to bring fresh evidence to the work, we must yet, now and again, show a picture that has become, even in the school history book, as well known as any postage-

## EUROPEAN ARMOUR AND ARMS

stamp. Thus we produce once more that famous illustration from the Anglo-Saxon Manuscript of Aelfric's Paraphrase: without it we could not safely begin our history of the Englishman's war-gear.

As far as may be, we have taken our illustrations from English sources, to which the reader may go himself for more assurance. Only where English examples fail have we sought help abroad.

In a few words one may make the picture of the Anglo-Saxon warrior of the fyrd, the man who came light-armed from the greenwood and the plough-gang to the mustering. He was unarmoured, save for his *byrnie* or



FIG. 1. SHOWING THE PLAIN,  
ALMOST FLAT, SHIELD  
Cott. MS. Cleop. C. 8  
British Museum



FIG. 2. SHOWING THE STRONGLY CONVEX  
AND PROBABLY SEGMENTED  
SHIELD  
Cott. MS. Cleop. C. 8. British Museum

battle-sark, which doubtless was composed of strips of leather sewn tile-wise to a foundation of coarse linen, as leather of thickness for defensive purposes, unless so arranged, would be too stiff a casing for the body. A cap of the Phrygian fashion, plain leather, or reinforced with copper, occasionally with iron bands, kept his head. His legs, from the knee downward, were protected by thongs of leather, wound puttee-wise and meeting a hide shoe cut after the manner of the Highland brogue of the XVIIth century. A round buckler, either fashioned flat like the Scottish targe with strengthening bands and boss of iron, as seen (Fig. 1), or very deeply hollowed, as we see represented (Fig. 2) (both from Cott. MS. Cleop. C. 8), was his last defensive

## PRIOR TO THE NORMAN CONQUEST

piece. Of such shields, or as the Anglo-Saxons called them, *bord* or *board*, our English museums can only show the iron bosses and the fragments of iron rims recovered from graves; but one, apparently of oak, a fairly complete specimen found in Blair Drummond Moss, is now preserved in the National Museum of Antiquities at Edinburgh. Of this we give an illustration (Fig. 3). We are, however, fairly familiar with the variations of their form from the MSS. that exist. In their manufacture the foundation was usually of linden or lime-tree wood; in the poem of Beowulf, Wiglaf seizes his shield of "the yellow linden." They were for the most part circular; the boss forming the centre. In the illustrations they are generally shown concave, so as to cover the breast and shoulder well. The convex surface turned towards the enemy, to turn the blow of a sword or the thrust of a spear. The wooden foundation was so made as to leave an aperture for the hand in the centre, and over this came the boss guarding the hand. Indeed, their method of grip was exactly the same as the circular bucklers of the early years of the XVIth century. Stretched over the wood and under the boss and rim and bands was the hide of bear, wolf or deer, fur outwards; by the law of Æthelstan, and doubtless by the more ancient laws of tribal lore, it was forbidden to use the skin of the mild sheep for covering a war-shield.



FIG. 3. REMAINS OF A  
WOODEN SHIELD

Found in Blair Drummond Moss

Even in the days of peace the Anglo-Saxon carried a spear as his descendants carry a walking stick; in war his common arms were spear and sword. The spear in contemporary drawings is crudely represented by a thin straight line with a leaf-shaped or barbed head; we know that in reality the hafts were of medium thickness, the length varying according to the requirements of the wielder. Very many spear-heads of Saxon times have been handed down to us; in most cases they are simply constructed of iron, fashioned to the outline of a short sword blade, for the greater part of the length of which the sharpened edges are almost parallel, although gradually tapering at the extreme end. In nearly every example the haft socket is forged in the manner of all later lances and spears, though not completely encircling the shaft, in fact split as in the illustration (Fig. 4, *a*, *b*, *c*). (Fig. 4, *d*), is a javelin head, light but very strong; in this case the haft socket

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is complete. The lance heads illustrated are all London finds and are now in the London Museum. In greater variety the Saxon lance and spear-head are to be seen in the British Museum. The spear was the freeman's weapon, and as such lawful, but "if a slave be found with a spear it shall be broken on his back."

In his barrow grave the freeman lies with his spear beside him. We find the spear-head near his foot, the ferrule by his head; he was buried with the "reversed arms" which still are the symbol of warlike grief. The bow was no national weapon of the Anglo-Saxon; the bowmen were on

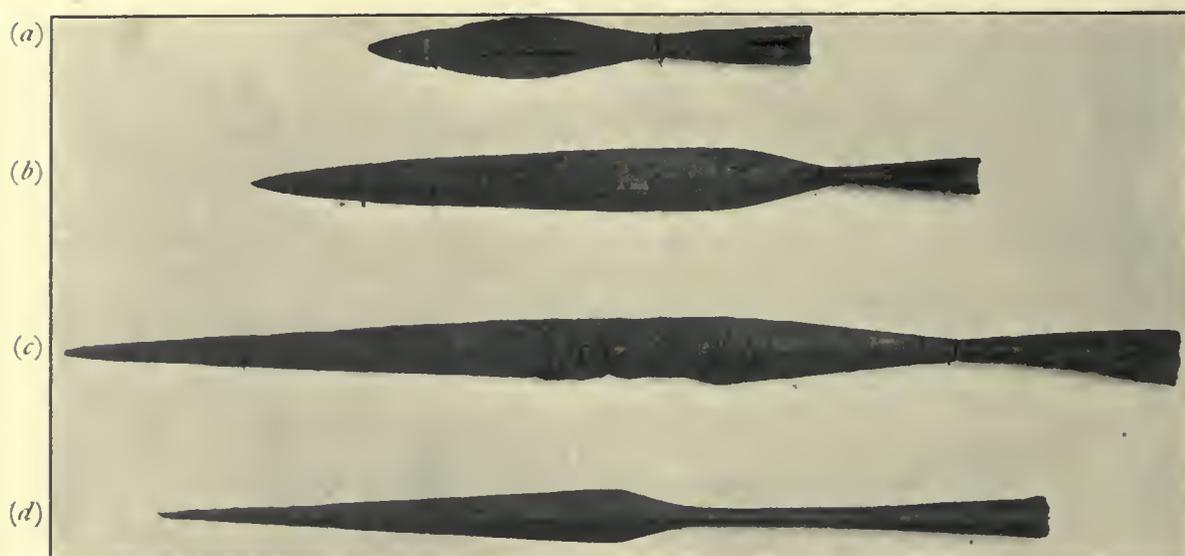


FIG. 4. SAXON SPEAR AND LANCE HEADS

- (a) Small spear-head, VIIIth to Xth century, split haft socket, found in the Thames opposite the Tower of London
- (b) Spear-head, Xth to XIth century, split haft socket, found in the Thames at Vauxhall
- (c) Long spear-head, decorated, Xth to XIth century, split haft socket, found in the Thames at Wandsworth
- (d) Javelin head, Xth to XIth century, complete haft socket, found in the Thames opposite the Tate Gallery

London Museum

the other side at Hastings; it was not until he had learned to bend the mighty bows of Gwent that the English archer came to his pride of place. Arrow-heads of this period are rarely discovered. An illustration of an Anglo-Saxon bow and arrow in use is given from the Utrecht Psalter, early XIth century (Harleian MS. 603, Brit. Mus.) (Fig. 5), also an illustration of an arrow-head found in the river Thames at Wallingford (Fig. 6), and an example from the Thames at London (Fig. 7).

We see in the Bayeux needlework the Anglo-Saxon slings. They also figure in the Cotton MS. Claudius B. 4 (Fig. 8). Knife and dagger *seax*

## PRIOR TO THE NORMAN CONQUEST

were likewise auxiliary weapons. These are found in most Saxon districts. London is responsible for many fine specimens. The *seax* is back-edged and in profile not at all unlike the modern Cingalese dagger (Fig. 9, *a* and *b*).

We have already said that the simple militiaman of the fyrd fought light-armed in a leather coat. But the thegn who led him to the field was better fenced with his *byrnie* of ringed mail. We may not trust over much to the Bayeux needlework for the picture of English warriors. Yet it is to be remarked that it gives the same gear to Norman knight and English



FIG. 6. ANGLO-SAXON ARROW-HEAD

Found in the Thames at Wallingford  
Collection: Author



FIG. 5. ANGLO-SAXON BOW AND ARROW

From the Utrecht Psalter, Early XIth century. Harleian MS. 603, British Museum



FIG. 7. ANGLO-SAXON ARROW-HEAD

Found in the Thames at Southwark  
London Museum

house-carle, each alike wears the ringed hauberk almost to the knee, and the helmet with the nasal-guard. His poets tell us that the Englishman's *ring-byrnie* was "hard hand-locked"; the poem of Beowulf has words of "locked battle-shirts." Precious were these battle-shirts and not to be bartered lightly; no merchant, said the law, shall send *byrnies* over sea.

But here we are confronted by the difficulty with which all students of the history of armour have to contend; how were the old English mail-shirts wrought? Was it a garment of leather on which rings of metal were sewn at regular intervals, in varying degrees of closeness according to the

## EUROPEAN ARMOUR AND ARMS

quality of the shirt, or was the hauberk or *ring-byrnie* a true shirt of inter-linked chain-mail? We incline to the theory that the Anglo-Saxon hauberk was of chain-mail; for without doubt true shirts of mail of the Viking type



FIG. 8. SAXON SLINGER  
Cott. MS. Claudius B. iv. British Museum



FIG. 9. (a) MODERN CINGALESE DAGGER  
(b) SAXON SEAX  
London Museum

have been discovered both at Vimose and Thorsberg. Although belonging to a date considerably earlier than the period of which we now write, it therefore seems probable that, since these have been found, others no doubt existed in numbers; it is also reasonable to suppose that if the VIIth and

## PRIOR TO THE NORMAN CONQUEST

VIIIth centuries produced in Northern Europe an interlinked shirt of mail, its superiority over other warlike garments would have caused such mail shirts to find their way in the course of the next two centuries into the greater part of civilized Europe. Of the intricacies of "banded" and "teglated" mail we will speak briefly later on. But for support of the theory that the *ring-byrnie* was of simple interlinked chain-mail, without the addition of leather thongs or lining, we may turn to the Bayeux needlework and point to the dead Englishman, whose hauberk of mail is

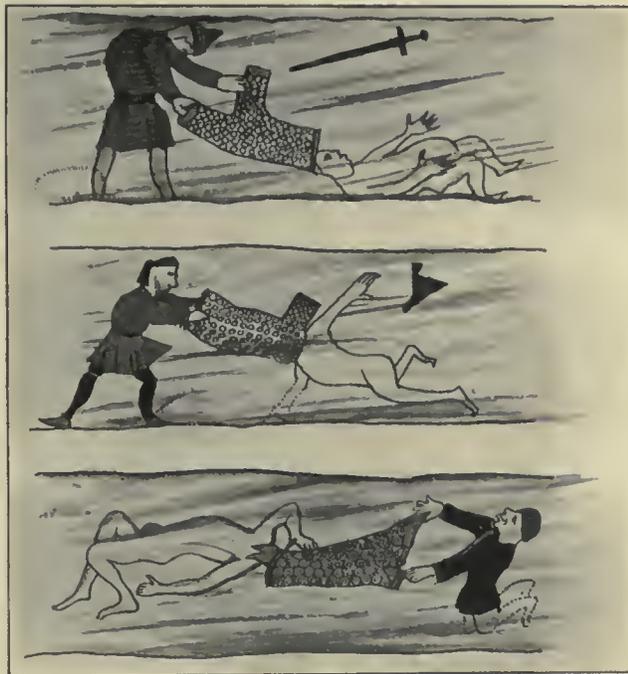


FIG. 10. NORMANS DIVESTING SAXON DEAD OF THEIR HAUBERKS OF MAIL

From the Bayeux needlework

being dragged inside out over his head, as live Englishmen pull off their woollen sweaters.

In this picture the inside of the *byrnie* is plainly shown, and it will be noticed that it exhibits what may be taken as small links, and that it is unlined (Fig. 10).

As for the shield of the English thegn or full-armed warrior it had the form of that borne by lesser men, although it was possibly made of richer materials. In the British Museum there are examples of the boss having a silver disk of about the size of half-a-crown, soldered to a base of bronze,

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affixed to the summit, and ornamented with large silver-headed rivets round the edge.

At Hastings the thegns and house-carles fought round their doomed king, swinging the long-hafted axe, splitting the bodies of Norman knights and shearing horse-heads at the neck. This axe was the traditional weapon of the house-carles; those of Cnut's body-guard bore it. Long after the conquest of England, when lance and sword were the knightly weapons, the memory of those great axes was in men's minds. In ancient rolls of blazonry, made so late as the beginning of the XIVth century, they are



FIG. 11. FRAMEWORK OF A HELMET: ANGLO-SAXON  
IXTH-XIth CENTURIES

Found at Benty Grange, near Monyash, Derbyshire. Public Museum, Sheffield

painted as charges upon shields, and still named as *haches daneis*, the Danish axes. The old Surrey family whose surname was Huskerley, bore three such axes in their shield, showing that two or three centuries after the last house-carles died with Harold and his brothers, there was a dim fancy that an axe of Danish fashion was the only symbol of one who took his name from some ancestral house-carle.

The bronze and iron helmets of the English thegns resembled those of the Norman invaders. No complete specimen is known to the writer; indeed, our national treasure house, the British Museum, fails us in even an incomplete example. There was formerly, however, in the collection of Mr. Thomas

et venerunt ad fontem iudith. hec e. cadet. p. m. c. p. m. o. n. e. d. r. q. d. p. e. a. s. i. c. v. o. c. a. t. u. m. e. t.  
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Panamon danamon parige pascan cuningas sona onpa busi gum  
 rodoma rgonosia da god se hi dafi fundon. trac laddon apff  
 loch molis. eheum. abiamer b. i. o. d. o. q. i. r. u. n. u. d. e. o. n. p. a. m.  
 busi gum rapidode.



Da et b. i. s. t. h. i. r. u. m. m. a. n. i. s. e. h. y. c. p. a. d. e. a. b. i. a. m. e. l. u. p. n. a. n. h. y. r.  
 b. i. o. d. o. q. i. r. u. n. u. o. n. b. i. d. u. m. a. p. f. l. a. d. d. e.  
 Damale. yob. i. l. u. r. b. i. f. e. n. e. i. s. l. o. d. e. a. n. n. o. c. a. b. u. l. o. e. m. a. s. e. c. h. a. n. c. i. l. l. e. a. b. r. a. h. a. f. i. l. i. a. p. e. l. l. a. t. e.  
 Porro masech q. s. i. b. i. u. e. l. i. c. i. l. b. r. i. s. h. e. b. r. e. a. r. u. q. u. e. l. t. i. o. n. u. p. l. e. n. i. d. i. s. p. u. t. a. v. i. t. h. i. c. c. a. n. t. u.  
 m. e. p. t. i. s. u. m. f. u. n. d. e. d. i. c. i. o. n. i. q. a. n. c. i. l. l. a. a. b. r. a. h. e. m. a. s. e. c. h. m. i. n. c. u. p. a. t. a. p. l. e. m. u. s.

FIG. 12. ÆLFRIC'S PARAPHRASE OF THE PENTATEUCH  
 Cott. MS. Claudius B. iv. British Museum

The letterpress refers to the group of figures in the top left-hand corner of the Missal, but the representation of the shields, helmets, and weapons of the other combatants are all worthy of the closest scrutiny.

## EUROPEAN ARMOUR AND ARMS

Bateman of Derbyshire, the iron framework of a helmet of Anglo-Saxon times. This framework is now in the Public Museum, Sheffield (Fig. 11). It was found in the year 1848 in a low mound, surrounded by a slight rampart of earth, at Benty Grange, near Monyash, Derbyshire. The iron bands are surmounted by the figure of a boar standing upon a bronze plate. The bands are partly enriched with inlays of silver. It has been surmised, and probably correctly, that the lining of the helmet was of copper or even horn. There is a form of nasal guard attached.

In an illustration (Fig. 12) chosen from Cott. MS. Claudius B. iv, Ælfric's Paraphrase of the Pentateuch and Joshua, to which we have already referred, we see in the top left-hand corner the two kings helmetless but each wearing a crown. The first king is clothed in the loose Saxon *gunna* caught up at the waist, and with puckers, characteristic of Saxon fashion, in the sleeves. Apparently he is without thongs binding his legs. He is armed with a sword, long and double-edged, but is shieldless. The figure immediately to his left is his shield-bearer, although his charge is curiously held. The second king is habited in the *ring-byrnie*, with loose sleeves which reach to the elbow, and, as far as can be seen, open at the neck, descending to just above the knee, and with a short split at the front. Besides brandishing a sword of similar form to that of the first king, he holds out in front of him a round, convex shield with a spiked boss in the middle. The surface of this shield is plain, although that of his shield-bearer beside him is represented as being constructed in segments.

The legs of the second king are apparently bare, but he has shoes or brogues of leather. The representation of the ringed mail is crude in the extreme, the links are the size of a crown piece, and would certainly appear to be sewn flat upon a foundation and not linked together.

But in spite of this, when we consider the conventional drawings of this period, with town walls like hen-coops, rocks and ploughed fields depicted as cloud-like forms, we can readily assume that a true interlinked chain-mail hauberk might be indicated in the inaccurate fashion of this illustration.

\* \* \*

Concerning the weapons of the nobles, it has been asserted that none below the rank of thegn was girt with the sword, but to differentiate between the long knife of the ordinary soldier and the short sword of the thegn—more especially as the *hring mæl* or sword in the earlier Saxon times was practically quillonless—is to draw a sharp line. Many swords of this date have been handed down to us. They are fine, and, in many

## PRIOR TO THE NORMAN CONQUEST

cases, enriched weapons worthy of the closest scrutiny, for they are the very type depicted in the Anglo-Saxon and early Norman illuminations.

In addition to these authentic swords of Saxon times there are many famous swords with mythical histories attached to them, which have always



FIG. 13. THE SWORD CALLED THAT OF "ST. STEPHEN," PRESERVED IN THE TREASURY OF THE CATHEDRAL OF PRAGUE

(*a* and *b*) Reverse and obverse views of the hilt ; (*c*) the same sword, giving its general proportions

been considered to belong to very early dates, even prior to that with which we are now dealing. Chief amongst them are the two St. Maurice swords, respectively in the Royal Armoury of Turin and the Imperial Treasury of Vienna, and the two swords of Charlemagne, one in the Louvre of Paris and

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the other in the Imperial Treasury of Vienna. But, as may be imagined, they are not of the age they purport to be. They will be found dealt with later on in their proper period (pp. 85, 86, 88, 89, 90, 92, 93, and 94). There is yet another sword, preserved in the treasury of St. Veitus in the cathedral of Prague, which is known as the sword of St. Stephen of Hungary (Fig. 13, *a, b, c*). Although the fable as to its original owner is not acceptable, it is yet a much earlier sword than the four others mentioned, and it might well be a weapon of the XIth or even Xth century. The blade, which has cham-



FIG. 14. SWORDS FROM THE EPISODE OF THE BATTLE OF THE THREE KINGS AGAINST THE CITIES OF THE PLAIN

Cott. MS. Claudius B. iv. British Museum

fered edge, is considerably worn from cleaning, rendering it now very pliable, which clearly has also obliterated an inscription in large Roman letters, of which there are traces running down its centre. The inscription is now wholly illegible. The short, thick quillons, and the deep trilobed pommel are fashioned of ivory, engraved with intertwined dragons and foliage directly under runic influence, strongly suggestive of the sword hilts of Northern Europe of very early date. The wire grip must have been added in the XVIth century. The inventory of the Prague Cathedral Treasury of 1355 mentions: "*Gladius beati Stephani regis Ungarorum, cum manubrio eburneo.*" The same notice also appears in the inventories of the years 1368, 1371, and 1387. It has

been the theory of late years that the sword was presented to the treasury of St. Veitus by King Charles IV of Germany some time during his reign (1347-1378).

But to return, many swords without speculation of the Xth and XIth centuries do exist, but before describing the actual swords, let us see how they figure in the Anglo-Saxon MSS. Take as an instance that already referred to which is reproduced (Fig. 12) from the Cotton MS. Claudius B. iv. The book is Ælfric's Paraphrase of the Pentateuch and Joshua; the particular illustration chosen is the battle of the three kings against the cities of the Plain. Here we see the swords of two of the kings drawn most accurately in

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detail, although greatly out of scale (Fig. 14). That they are represented in exaggeration as to size we can satisfy ourselves when we look at the Gar-



FIG. 15

(a) SWORD FOUND IN THE THAMES, LONDON (British Museum); (b) SWORD FOUND IN THE RIVER WITHAM (British Museum); (c) SWORD FOUND IN THE THAMES, WESTMINSTER REACH (Collection of Godfrey Williams, Esq.); (d) SWORD FOUND IN THE THAMES, WANDSWORTH REACH (London Museum). The hilt three-quarter scale

gantuan sword arm and hand of the foremost king. As these are so much out of proportion, we may be assured that the sword was not actually six

## EUROPEAN ARMOUR AND ARMS

feet long and six inches wide in the blade as represented, but of the ordinary size of these swords of that time that have come down to us.

The artist's inaccuracy in matters of proportion we again notice in the absurdly small feet of the same king. However, despite these irregularities, the details of the armaments are accurate. The swords represented have hilts which are almost the counterpart of two swords in the British Museum, a sword in the Collection of Mr. Godfrey Williams, and an example in the

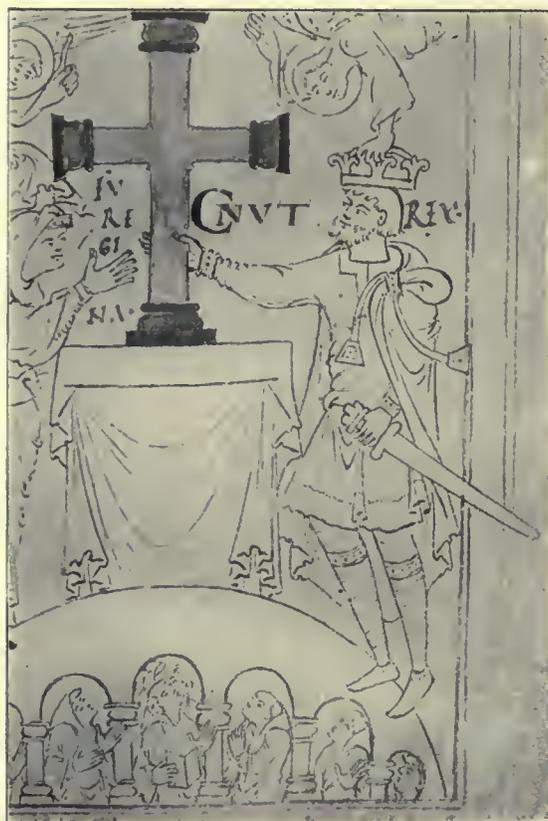


FIG. 16. KING CNUT  
From the register of Hyde Abbey  
British Museum

London Museum (Fig. 15, *a, b, c, d*). These weapons have the same shaped pommels, but the quillons droop slightly at the ends and lack that accentuated point over the centre of the blade. In the drawing (Fig. 14) the hindmost king has the hilt of his sword so fashioned, though by an artistic licence his sword is not so robust in proportions. The register of Hyde Abbey, written in the early years of the XIth century, shows a slightly different type of hilt, for King Cnut is represented wearing a sword with a three-lobed pommel and thick heavy straight quillons (Fig. 16). Of this make of quillons we can quote existing examples in the Wallace Collection (Fig. 17), in the collection of Sir Edward Barry, Bart. (although the pommel on the Barry sword is lobeless) (Fig. 18), a sword found in the Thames at Vauxhall, in the author's collection (Figs. 19 and 19A), and finally a sword,

with a differently formed pommel, but with the heavy, thick quillons. The last sword is of earlier date, probably of the Xth century, and is the true Saxon *mæl*, or *hring mæl*. It was found in the river Lee at Enfield (Fig. 20). It is now in the collection of Prince Ladislaus Odescalchi, Rome. For the richness of the harnessing, as represented in the MSS., we can but draw upon our imagination, but the actual ornamentation on the weapons in existence we can describe. They are nearly all decorated by the same process—gold, silver, and copper worked into intricate runic and geometrical designs, and

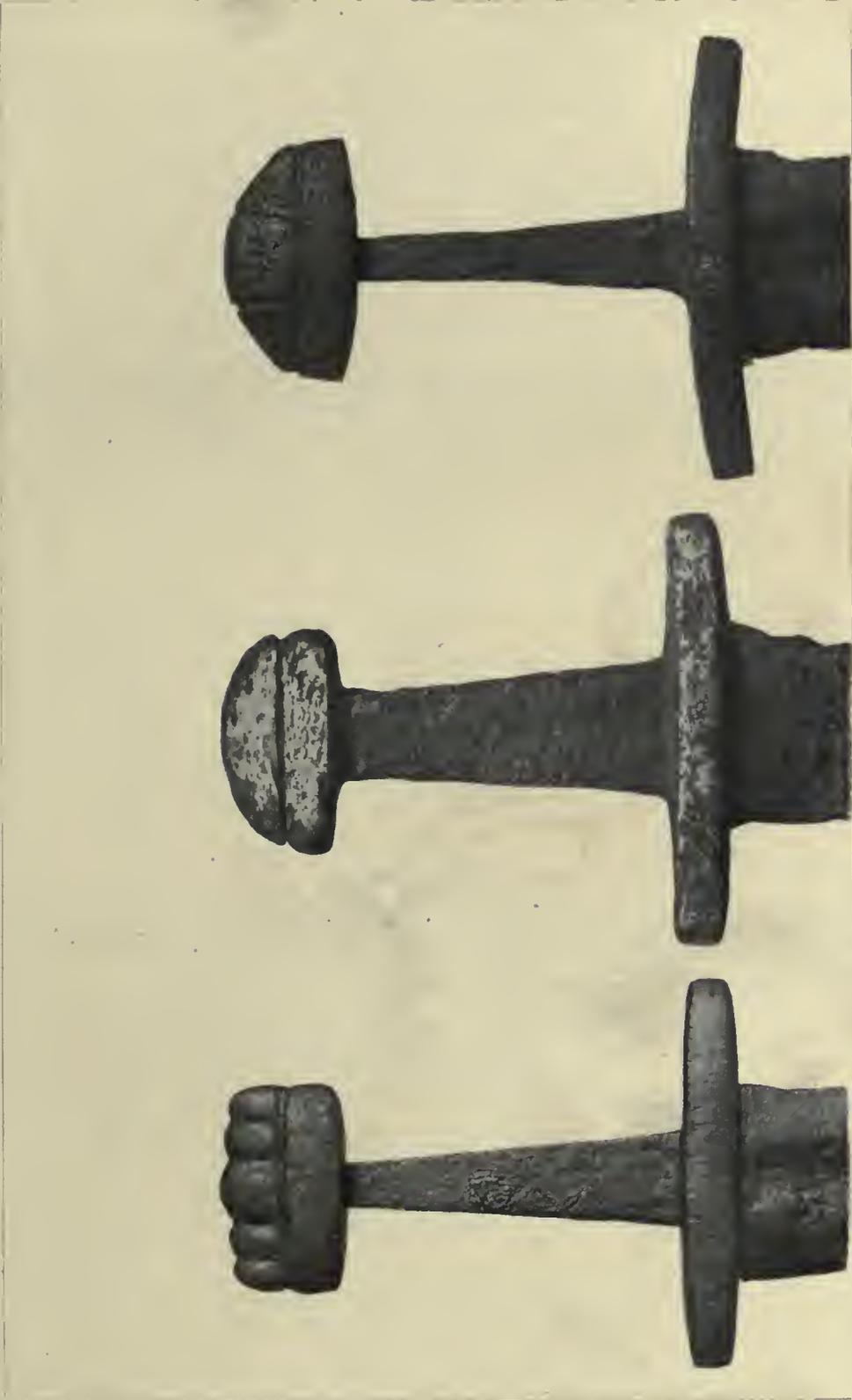


FIG. 17. SWORD, XI<sup>TH</sup> CENTURY  
No. 1, Wallace Collection

FIG. 18. SWORD, XII<sup>TH</sup> OR XIII<sup>TH</sup> CENTURY  
Collection: Sir Edward Barry

FIG. 19. SWORD, XI<sup>TH</sup> CENTURY  
Collection: Author

## EUROPEAN ARMOUR AND ARMS

applied to the surface of the pommels and quillons in the manner of the *azzimina* damascening of the XVIth century, although we can give an illustration of a superb sword hilt found in the Thames at Wallingford about 1875, formerly in the collection of Sir John Evans, but now in the Ashmolean Museum, Oxford, where the decoration is composed of overlaid silver plates chased with figure subjects and scrolls. It has been

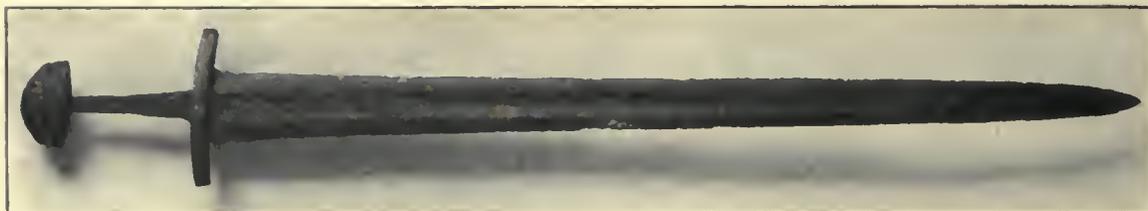


FIG. 19A. GENERAL PROPORTIONS OF THE SWORD  
SHOWN IN FIG. 19

suggested that in this particular sword the animals upon the pommel represent the emblems of the four Evangelists (Fig. 21). Many of these swords, when in their original condition, must have been genuinely beautiful quite apart from any barbaric splendour lent to them by the addition of elaborate scabbards and settings of gems. Most of the hilts which we have illustrated, it will be seen, are English finds, much resembling one another

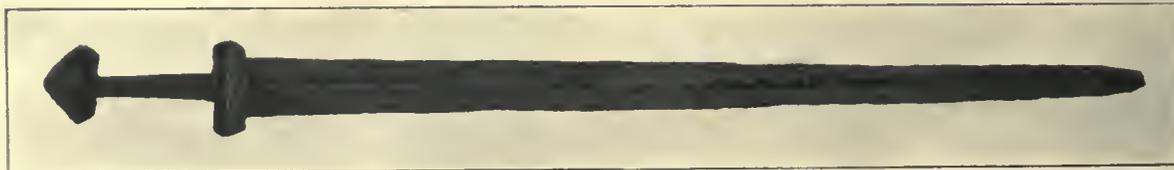


FIG. 20. SWORD FOUND IN THE RIVER LEE AT ENFIELD,  
LATE XTH CENTURY

Collection: Prince Ladislaus Odescalchi, Rome

in the principle of their manufacture. They are usually classed together under the heading of the "Viking" type. The blade was forged double edged, the section at the hilt varying a little according to the accentuations of its central grooving. In constructing the sword, the quillons were passed over the tang (the continuation of the blade for the reception of the hilt); these on their underside were deeply grooved in order that they might fit firmly over the extreme top edge of the blade. Next the grip was added:

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here we must once more conjecture, as no sword of the type, at least those known to the present writer, has been handed down to us with its grip entire,



FIG. 21. SWORD OVERLAID WITH PANELS OF ENGRAVED SILVER

The date is from about A.D. 900 to 1000. The decoration is under strong Norse influence  
Ashmolean Museum, Oxford

save perhaps for the famous Essen sword to which we shall shortly refer. From the absence of rivet-holes in the tang in the generality of these

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swords, we may guess that in most cases the grip was passed over the tang of the blade as in the sword grips of later times. A few, however, have the rivet holes by which grip plates were attached, and of these we give an illustration of a reconstructed specimen (Fig. 22). The grips were probably fashioned of wood, bone, horn or ivory; if of wood, they were doubtless covered with leather, though not bound with wire, as at a later date. The foundation wood of the grip, from close examination of the few remains that have been found, appears to have been pine-wood, as do some of the remnants of the foundation wood of the scabbards. On the top of the grip



FIG. 22.

RECONSTRUCTED SWORD  
WITH HORN GRIP IN  
POSITION

was placed the pommel, the tang of the blade passing through it and being riveted over at the apex.

There has been much controversy as to the origin of the shape of the pommel with the five or three lobed ornament. It has been suggested, with some degree of likelihood, that at the time when the flat oval pommel was in fashion, not of the type just illustrated, but about a century and a half anterior to the appearance of the lobed ornament, as, for instance, on such a pommel as shown on the sword hilt (Fig. 23), a *mal* dating from the



FIG. 23. SWORD, VIII<sup>TH</sup>  
OR IX<sup>TH</sup> CENTURY  
London Museum

IX<sup>th</sup> or even VIII<sup>th</sup> century, the fighting man used to bind a relic or charm to counteract misfortunes or strengthen his arm, and from this habit the lobed pommel was evolved. Its gradual development might be traced in the manner suggested (Fig. 24) until its latest form is seen in the early years of the XIII<sup>th</sup> century (Fig. 25).

This theory, brought forward by a very eminent authority, is strengthened by a careful examination of some of the actual lobated pommels here illustrated and described. In nearly every case the cord by which the relic was originally tied to the flat disk pommel is indicated, and in individual weapons it is represented by its counterpart in metal, either gold or silver. Certain museums of Northern Europe, notably that of Copenhagen, are extremely rich in these so-called Viking swords, though it may be accepted that the

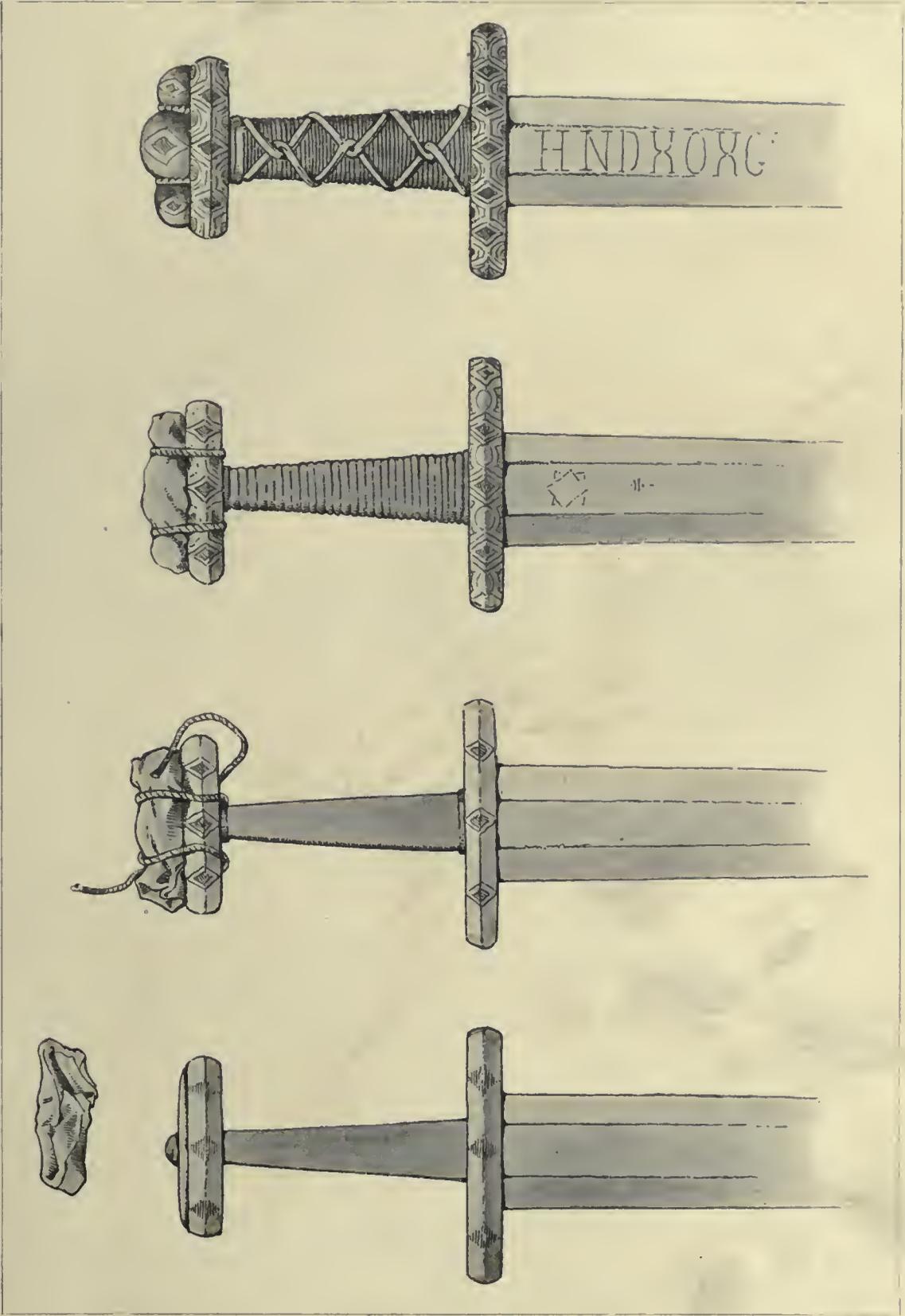


FIG. 24. THE SUGGESTED DEVELOPMENT OF THE LOBATED POMMEL  
 From a drawing by the present writer

## EUROPEAN ARMOUR AND ARMS

ultra-enriched specimens they display are of somewhat earlier date than those British finds we have illustrated.

Apart from the mystic Runes found upon the blades of weapons of the Iron Age, about which much has been written, it is often difficult, wellnigh impossible, to construe any meaning to the arrangement of letters and curious markings so often seen on those of the XIth and XIIth centuries. There exists a very learned treatise on the subject of the names and emblems found on the blades of the Northern Viking swords of the VIIIth and IXth centuries, written by A. L. Lorange, curator of the Bergen Museum; but we well remember that consummate authority, the late Sir Wollaston Franks, expressing his fixed belief that on blades of somewhat later date the survival of such lettering was practised by bladesmiths ignorant of letters, and that



FIG. 25. THE LATEST DEVELOPMENT OF THE LOBATED POMMEL

Examples in the British Museum; XIIth or Early XIIIth century

in the passage of generations the original significance of such lettering was lost sight of, developing into a jumble of often ill-formed and unconnected letters out of which no possible sense can be made.

Norway, Sweden, Denmark, Germany, the Low Countries, France, England, Scotland and Ireland have all produced specimens of

these so-called Viking swords, but those swords from the latter two countries differ a little in form and show a varying tribal influence, as will be seen by the illustration of the example of a thegnic sword found near Dublin. This sword, however, may be considered of rather later date (Fig. 26).

The strangest of all these swords that has come to the notice of the present writer is that found in Italy near the outskirts of Florence, at present in the collection of Mr. Henry G. Keasby (Fig. 27). On the pommel of this sword the lobations are exaggerated to such a degree that it resembles a palm leaf in form, the lobes finish in spikes so long that they must have proved a considerable hindrance to the use of the weapon. Its probable date is about 1100.

We have left to the last our description of perhaps the finest and possibly the earliest of the historical swords that the hand of Time has spared us—

## PRIOR TO THE NORMAN CONQUEST

the superb but little-known sword in the Dömschatz at Essen, Germany (Fig. 28). In our opinion it is perhaps the only sword that can possibly claim the antiquity assigned to it, namely, the Xth or XIth century, as apart from its actual form the argument of its decoration vigorously acclaims its very early date. Indeed, the question has arisen, a question not lightly to be set aside, as to whether or no the blade is not of even greater antiquity than is claimed by the mounting. There is the possibility, and tradition so claims it, that the blade belongs to Roman times, to the IVth century, and was used at the execution of the patron saints of Essen, St. Kosmas and St. Damian, who suffered for their Christian faith in the year A.D. 303. Though within the category of truth, this tradition requires strong belief. The following is a description of the sword as we see it to-day.

The flattened lobated pommel is studded with precious stones, showing very little of the gold filigree groundwork. The quillons have, besides the precious stones, decorations in the form of small enamelled plates, but of



FIG. 26. THIEGNIC SWORD FOUND NEAR DUBLIN

which only three still exist. The enamel is in form of stars and fan-shaped ornaments: pale yellow (opaque), deep yellow (opaque), dark green (opaque), greenish blue (opaque), white (translucent), cobalt blue (translucent), light blue (opaque), and very dark blue (opaque).

The upper and lower parts of the quillons, as well as the front and back of the hilt, are decorated with gold filigree work.

The scabbard consists of a wooden lining of beechwood overlaid with gold plates. At the sides it has been restored, like one or two of the embossed gold plates that cover the scabbard. The locket mount and the chape have been strengthened, probably in later mediaeval times, by fresh plates of gilded silver.

The artistic beauty of this splendid sword lies in the embossed gold plates that decorate the front and back of the scabbard. The raised design is masterly in treatment, and consists of scrollwork in the form of spirals, with foliage and animals interspersed. Experts on architectural ornament assign to this scabbard a date between the Xth and XIth centuries, for as early as the Xth century similar designs of foliage and animals occur on

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Byzantine work, with which feeling the general decoration of this scabbard is imbued.

The locket mount and ferrule of the scabbard were, as we have already



FIG. 27. SWORD FOUND NEAR FLORENCE  
Collection: Henry G. Keasby, Esq.

said, added to it, probably in the XVth century, but reveal beneath their scalloped edges parts of the original plates of gold.

On the front of the chape are Gothic ornamentations, and on the back two cylindrical-shaped fasteners soldered on to facilitate hanging the weapon to the belt.



FIG. 28. TWO VIEWS OF THE SWORD IN THE DÖMSCHATZ OF ESSEN  
Late Xth or early XIth century

## EUROPEAN ARMOUR AND ARMS

The locket mounts display on the front face the two patron saints of Essen, St. Kosmas and St. Damian, and on the reverse side the inscription: GLADIVS, CVM QVO DECOLLATI FVERVNT NOSTRI PATRONI.

If this wonderful sword, or at least its mountings, were executed in Germany, either at the time of Otto III or Henry II, the town of Trèves or Ratisbon might either have produced them.

Such applied arts in the Xth and XIth centuries then flourished in Trèves under Archbishop Egbert, 977-993, rendered with a strong Byzantine influence, or at Ratisbon under Abbot Ramvold von Emmerau, 979-1001. If Italy was responsible for the mounting of this sword, either Venice or Monte Casino might have been its birthplace. Works produced there likewise show Byzantine influence, such as is in the designs of foliage and animals conjoined with the leaves on this scabbard. There is the possibility that it was made in Constantinople, and either looted from there or sent as a present by the Empress Theophano to one of the German emperors, afterwards to be presented by them to the Abbess of Essen.

We have given more space to the consideration of the Essen sword than to the other weapons of this time, partly because we appreciate it as the most important of its period extant, and certainly the most complete in all its parts.

\* \* \*

Of the lance or spear of the lower order of soldiery we have already briefly spoken. The long-hafted weapon of the nobility, in fact the *gár* of the thegn, for all types of war spears were known by that name, we can but divide into two classes, the lance or spear and the javelin. Some finely decorated spear-heads exist, overlaid with typical Norse designs in silver and copper; the most elaborate of these with which we are acquainted are to be seen in the museums of Copenhagen and Bergen. In the British Museum are a few decorated heads, but less rich in appearance, as they chiefly rely on concentric rings of silver and copper around the haft socket for their adornment.

There are heads of a certain type of hafted weapons found occasionally in England, though they are believed to be of foreign type, two of which we illustrate. The use of such spears must have been exclusively for fighting on foot. They closely resemble in construction the spetum of the XVth and XVIth centuries, although the lateral blades or lugs are not so formidably developed, suggesting that these projections were made rather with the idea of catching the blow from a sword or axe than for use as auxiliary blades, for the purpose of wounding.



FIG. 29. SPEAR-HEAD  
VIII<sup>TH</sup>-X<sup>TH</sup> CENTURY  
Collection: Dr. Bashford  
Dean, New York

I



FIG. 31. FIGURE OF GOLIATH  
He is armed with a spear, the head of which  
resembles Nos. 29 and 30  
Harl. MS. 603, f. 73. British Museum



FIG. 30. SPEAR-HEAD  
VIII<sup>TH</sup>-X<sup>TH</sup> CENTURY  
Found in the Thames,  
Kew. London Museum

F

## EUROPEAN ARMOUR AND ARMS

The two we illustrate, one from the collection of Dr. Bashford Dean of New York (Fig. 29), and a simpler, but equally representative head of the same type, found in the Thames at London, now in the London Museum (Fig. 30), are representative. We are aware that this particular type of head with the lateral lugs at the half socket is assigned to a period anterior to that with which we now deal, but as an XIth century evidence of their continued use we reproduce from the Harl. MS. 603, f. 73, the figure of Goliath armed with a spear, the head of which is apparently of this form (Fig. 31). It is



FIG. 32. AXE-HEAD, XTH OR XIITH CENTURY

Found in the Thames, Hammersmith.  
London Museum

interesting here to note that the oldest relic of the Romano-Germanic Empire, now preserved in the Imperial Treasury of Vienna, the lance-head known as that of St. Maurice, or the holy lance of Nuremberg, containing in the centre of its blade a nail of the Holy Cross, was originally just such a head as Dr. Dean's specimen. As it now appears, the centre of the blade has been cut away to receive the relic. At some period in the reign of the Emperor Henry IV (1056-1106) the spear-head was broken in the centre and mended with bands of silver. On these bands are contemporary inscriptions recording the event. Further restorations and additions were added to the spear-head under the Emperor Charles IV (1347-1378). Our certain knowledge of this holy lance commences

with the year A.D. 918, when Widukind, monk of the Abbey of Corbie, writes in that year it formed a part of the regalia of King Conrad I of Franconia (A.D. 911-918). Its previous history is purely mythical.

The axe, though used as it was by the knightly class of the old English, has seldom been found in any way enriched, though perhaps it was occasionally beautified in outline—indeed, of the many axe-heads discovered it is almost impossible to determine which are of English and which of Norman or Danish origin. The axe we may consider as Saxon is shown in our illustration (Fig. 32), a specimen found in the Thames, whilst our illustration (Fig. 33) shows combatants, armed with the axe matched against the spear.

## PRIOR TO THE NORMAN CONQUEST

It must not be considered that the armaments which we have described as of old English origin were used in Britain alone; they represent the



FIG. 33. COMBATANTS ARMED WITH AXE AND SHIELD AND JAVELIN AND SHIELD  
Cott. MS. Cleop. C. viii, f. 24. British Museum

weapons of nearly all civilized Europe of the first quarter of the XIth century; we are likewise reluctantly forced to admit that the continental



FIG. 34. SAXON BRONZE BIT  
Found in the Thames at Wandsworth. London Museum

countries were ever in advance of Britain in the adaptation of new types, also that the continental workmanship shows a slight ascendancy over our

## EUROPEAN ARMOUR AND ARMS

insular productions. As an example of this, finds made in Norway, Sweden, and Denmark show us workmanship of such a high quality and shapes so advanced that they might readily be considered to belong to a century later, but by circumstantial evidence they can be proved to be weapons offensive and defensive of the VIIIth, IXth, and Xth centuries.

\* \* \*

The horses of the mounted soldiers or thegns were unprotected, and their trappings of the very simplest construction, though often rich and sumptuous in appearance. The bridles with which we are acquainted are merely of the ring snaffle type. An example fashioned of bronze found in the Thames at Wandsworth is now in the London Museum (Fig. 34). This specimen belongs to the earlier Saxon times. The formation of the stirrups, if not actually of leather thongs, was of the simplest triangular form, though in general outline they were little at variance with the shape in use to-day. A fine example now in the London Museum, decorated with brass inlay, was found in the



FIG. 35. STIRRUP WITH BRASS ENRICHMENT, XTH-XIITH CENTURY  
Found in Thames. London Museum

Thames near the Tower of London (Fig. 35). The spurs of this period were of the prick order, the simple heel band and straight goad neck predominating (Fig. 36 *a* and *b*). We give illustrations of an elaborate pair of spurs that can safely be assigned to the first half of the XIth century (Fig. 37). They are remarkable examples of their kind, being highly enriched and in a wonderful state of preservation; indeed,

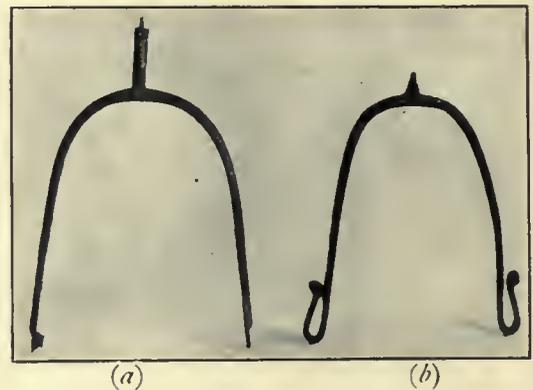


FIG. 36. SPURS, XTH AND XIITH CENTURIES  
Found in the Thames. London Museum

## PRIOR TO THE NORMAN CONQUEST

fragments of the leather attaching straps are still in existence. They are now in the possession of Mr. H. G. Radford. In all probability they are the spurs referred to in "The Book of the Axe," by George P. R. Pulman, on page 567, 1875 edition. Describing the church of St. Andrew, Chardstock, he goes on to say: "About thirty years ago, on removing part of the south aisle of the old church, a stone coffin was discovered in the midst of the

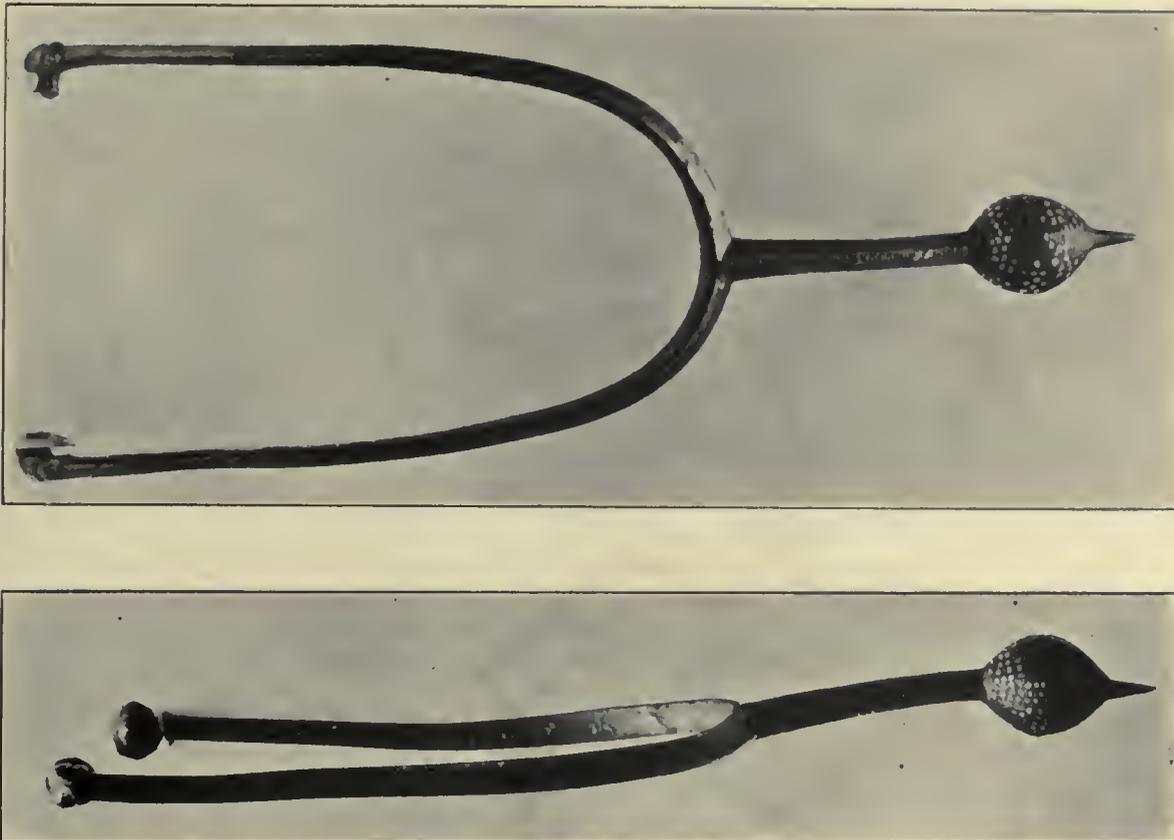


FIG. 37. PAIR OF SPURS ENCRUSTED AND PLATED WITH GOLD AND SILVER  
First half of the XIth century. Collection: H. G. Radford, Esq.

outer wall. It contained parts of the skeleton, but the most interesting relics were the form of boots upon the bones of the feet and legs, with the spurs still undecayed. In all probability the remains were those of the founder of the aisle or the chief contributor to its erection."

We may consider these spurs are those referred to by Mr. Pulman, for they were re-discovered some four years ago in a small, but old, private collection not far from Lyme Regis, which is no great distance from Chardstock.

## EUROPEAN ARMOUR AND ARMS

In the London Museum is a single spur of Saxon times, simple in construction, but enriched with scroll-work in brass and silver inlay. It was found in the Thames at Westminster (Fig. 38).

With this finishes our very rough account of the military accoutrements of the first half of the IXth century, but so vague is the general idea of

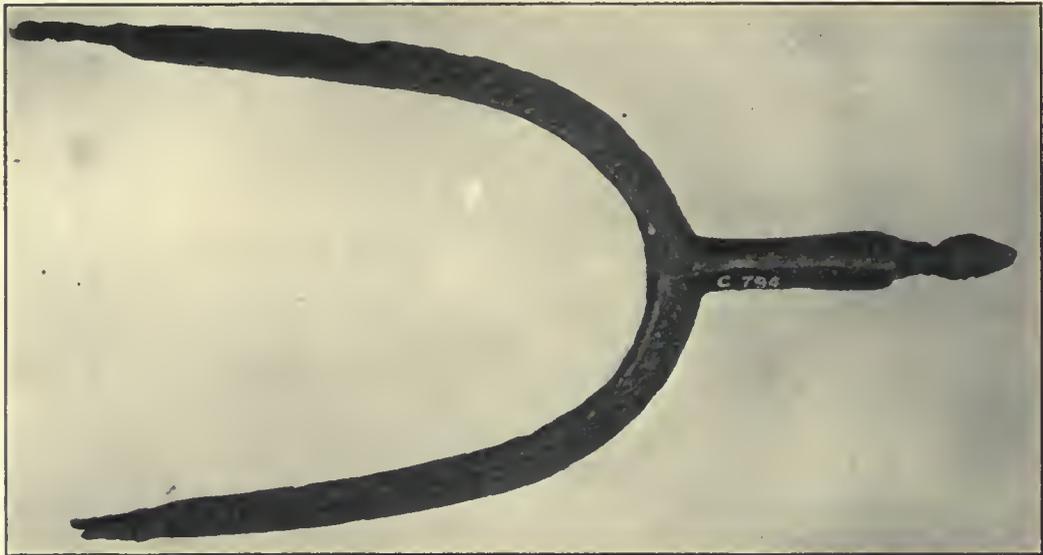


FIG. 38. SPUR WITH SILVER AND BRASS ENRICHMENTS

Xth or XIth century. Found in the Thames, Westminster. London Museum

the armaments of the Anglo-Saxon, or, as we call him, the old Englishman, we can do no better than reproduce one of the cleverly reconstructed figures, the combined work of M. Viollet-le-Duc and Colonel le Clerc, preserved in the upper galleries of the Musée d'Artillerie of Paris, as a very fair illustration of how such warrior thegns would have appeared when in full fighting array (Fig. 39).



FIG. 39. PRESUMED APPEARANCE OF AN ANGLO-SAXON THEGN  
From the reconstructed model by M. Viollet-le-Duc and Colonel le Clerc  
in the Musée d'Artillerie of Paris

## CHAPTER II

EARLY NORMAN PERIOD. GENERAL HISTORY OF ARMOUR AND ARMS

A.D. 1070—1100



IF the English king had held his own on the hill; if William's body and not Harold's had been dragged that October morning to a grave under the rocks of the Sussex shore, our tale of the armourer's changing fashions would yet go on. For a generation, for two generations or three, those old English who never loved change would have followed their fathers' customs, riding to the battlefield, but lighting down to fight with swinging weapons, Englishmen elbow to elbow. Yet we cannot doubt that, in the end, the English knight would be as the French knight, as the knights of Flanders or Almain, a horseman fully armed for the battle of horsemen.

But the Conqueror's host brought with them sudden change. When all was turned about in England the fashions of war-gear turned with the rest. "Englishmen," says Wace, "do not know how to joust with the lance or how to bear arms on horseback, they grasp *haches e gisarmes*." Yet they will learn their lesson of the sons of the men who came riding on great horses from Pevensey, lifting long lances. Long after the conquest of England will linger the memory of those axes that hewed down horse and rider on the hill-side. But the axe will go out of favour with warriors whose pride sits in the saddle, who can joust with the lance. From the Conquest onward the history of arms and armours is, in the main, a history of fashions of knights who will fight on horseback wherever they dare risk the skin of that costly beast, the *destrier* or great horse.

The memorable doings at the battle of Hastings may be seen pictured in the famous roll of needlework still preserved at Bayeux. Controversy has arisen as to the exact date of the production of this needlework roll. It was the former tradition that it was the work of Queen Maude, consort of the Conqueror, and her handmaidens; but of late years, a date, varying from fifty to one hundred and twenty years after the actual date of the battle, has been assigned to it. We ourselves, however, are inclined to think that as

## EARLY NORMAN PERIOD

the armour and weapons represented are simpler and more archaic in form than any known representations of mid-XIIth century armaments, it is safer to place the production of the Bayeux needlework in the last quarter of the XIth or the commencement of the XIIth century, a view that almost coincides with that taken by M. le Commandant Lefebvre de Noëttes, who assigns the date of its production to between the years 1120 and 1130.

Without doubt the needles that wrought those many yards of history in coloured threads upon coarse canvas worked to make a faithful picture. But a nice accuracy of detail must not be sought in this strange stitchwork record. Yet vague as are the details of the costumes and armaments given, they have been taken as chief authority for the XIth and XIIth centuries'



FIG. 40. REDUCED ILLUSTRATION OF THE ACTUAL APPEARANCE OF THE BAYEUX NEEDLEWORK, SHOWING THE CRUDENESS OF ITS RENDERING

From a coloured cast made by Charles Stothard. British Museum

armour by nearly every writer on the subject, from Sir Samuel Meyrick until the present day. Shirts of mail represented by simple outlines, the various types distinguished by arrangements of dots, rings, and lines; conical fighting helmets resembling triangles balanced on the heads of the warriors; spears that look like darning needles, and other weapons, the true meaning and use of which can only be a matter of guesswork; such conventions serve this authority (Fig. 40). Yet, much that is of the greatest interest and importance in the study of armour and arms can be learnt from this crude work: though we have constantly to bear in mind that this needlework roll has been subject to restoration on no fewer than four occasions, the first of which occurred late in the XVIIth century.

In the case of the Norman warrior, we will not, imitating our procedure with his Saxon brother, consider the habiliments of the rank and file first;

## EUROPEAN ARMOUR AND ARMS

but we will pick out and dissect the armour and weapons of some of the principal figures in the famous roll and seek to trace the likeness in their accoutrements to that of those appearing in other existing documents of the same period, by this comparison endeavouring to determine the actual aspect and method of manufacture of Norman armaments.

We will however keep to the order in which we have already discussed the armaments of the Saxon warrior—that is, first the body armour, then the helmet and the principal weapon, the sword, and finally the secondary weapons, such as the lance, the spear, the mace, and the bow.

First look at the representation of Duke William himself—he appears

eleven times on the roll. The most interesting of these figures is that in the scene where, to assure his followers of his presence, the Duke has thrown back his conical helmet with its broad nasal guard, holding it raised with his right hand, while with his left he brandishes a curious mace that resembles nothing more closely than a stout wooden cudgel (Fig. 41). The rambling letters of the background tell you that HIC EST WILEL' DVX. With the exception of the horseman in front of him, William is the only warrior represented in full mail; by that is meant that he and his companion have the additional mail covering of *chausses* for their



FIG. 41. WILLIAM THE CONQUEROR

His eleventh representation on the Bayeux needlework, showing his helmet thrown back on his head to assure his followers of his presence.

lower limbs, differing therein from the other knights who are defenceless below the knee save for leather thongs or the equivalent. His hauberk descends below the knee, its skirt slit back and front for convenience in riding, in a fashion that has bred a controversy as to whether the hauberk ended below the waist, as a pair of short breeches, and was, in fact, cut like a modern bathing suit. But on reference to another part of the Bayeux roll we see weapons and armour being carried to the ships. None of the hauberks, which are clearly drawn from a full-face view, are so fashioned

## EARLY NORMAN PERIOD

below, and we can therefore take it that the appearance lent to many of the hauberks worn by the knights was not due to their really encircling the legs of the wearer, but to the incapacity of the embroiderer or draughtsman in indicating the hauberk clinging to the legs (Fig. 42). An instance of the simple form of the long hauberk (though the fact does not bear great weight in this argument) is to be seen in some of the chain mail shirts which were captured from the Soudanese after the battle of Omdurman; many of these shirts were certainly as long as those worn by the Norman



FIG. 42. THE BAYEUX NEEDLEWORK

Soldiers carrying hauberks, helmets and swords to the ships, likewise spears or javelins and apparently liquid rations

invaders, but none was joined round the legs, although the Soudanese method of fighting on horseback and much of Soudanese military apparel bear a very close resemblance to those of the Norman warrior of the XIth century.

Mr. Albert Way, in his glossary for the second edition of Meyrick's "Critical Inquiry," applies to this imaginary combination garment of hauberk and breeches the name haubergeon as opposed to the simple shirt or hauberk. But in this he must surely be in error, for the name is a diminutive of hauberk, and so could not well be a term to describe these very long hauberks.

## EUROPEAN ARMOUR AND ARMS

If we look carefully at the selected illustration of the Conqueror from the Bayeux needlework, we can see the armoured sleeves of another garment issuing through the wide arm-holes of the hauberk; these in the loose drawing of the time are represented as possessing exactly the same annulated surface as the hauberk itself. May they not be the sleeves of the small under-hauberk that might correctly be called the haubergeon?

The hauberks have a square opening at the neck, whilst at about the height of the chest we see on most of the shirts a rectangular reinforcement edged with some other material. This, in the Duke's hauberk, is not present, but it seems that the hood of mail issues from under the top of his hauberk. Might not this mail hood and the under sleeves appearing from beneath the hauberk be part and parcel of the same under protective garment?

We have discussed the probable shape of the Norman hauberk, but we come now to a far more difficult problem—the method of its construction and the material used. Up to this point the word mail has been used to denote the pliant protective material of the hauberk, not necessarily interlinked mail. From the divers ways of illustrating it, it would appear that various forms of mail are intended to be indicated. That pioneer in the study of armour, Sir Samuel Rush Meyrick, in his "Critical Inquiry," classifies the various styles represented as "teglated," "trellised," "masclad," "banded," etc., scale-mail being already recognized by antiquaries in the *lorica squamata* of the Romans. But after most carefully studying his views we cannot help agreeing with the late Mr. W. Burges, that these many names are but so many guesses at the materials indicated by the old artists, and that, whatever convention their brush or needle may follow, it is, as a rule, chain-mail that they would show us.

In the Bayeux needlework, where the figures are small and the material coarse, the embroiderer had no better method of representing interlinked mail than by indicating rings on the surface of the coat. Many writers have imagined from this that the armour was actually composed of rings sewn on to a foundation of some kind of linen, cloth, or leather. But such a protection would be of the poorest quality; it might withstand a sword-cut, but would be incapable of stopping a thrust from any weapon—the rings would immediately be forced apart. It may also be asked how long the stitches attaching the rings would last when the iron had begun to rust? Let us therefore be bold and assert that the mail hauberk of the Norman, conventionally represented by rings, by dots, or by scale-like marks, was none other than the ordinary interlinked chain mail, as we know it, of the

## EARLY NORMAN PERIOD

XVth and XVIth centuries. It may, of course, have varied very considerably in the size of its links; we see several sizes of rings illustrated in the Bayeux roll, but we think they all represent mail of the same construction, of the same make as the *ring-byrnie* of the Anglo-Saxon.

Two instances of mail differently pictured, but necessarily of the same kind, we can here illustrate. First in the Bayeux roll, in the eighth representation of the Conqueror (Fig. 43), where he is standing unmounted. The mail of his hauberk is here represented by a cross hatching, into the trellis of which are inserted the usual circles. This is on his body and right leg; but the part of the hauberk that falls over his left leg shows a different treatment, circles alone without the cross hatching. Therefore, unless his hauberk had a longitudinal half of one kind of mail and another half of a different kind, which of course is entirely improbable, we have proof positive of two conventional fashions of representing the same mail shirt upon one figure.

For a second instance of this looseness of drawing, we have but to look at the illustration (Fig. 44) chosen from the Cotton MS. Nero, C. 4, about 1125. We see in the upper portion of the page David and Goliath. On the left of the picture David has driven the stone from his sling into the forehead of Goliath; on the right of the picture David, after the death of his opponent, hands Goliath's hauberk of mail to Saul. As it stands to reason that the hauberk worn by Goliath must be the same as the one offered by David to Saul, and as the former has only just killed the giant, it is instructive to see that the same shirt of mail, illustrated twice in the same picture, is represented after two distinct conventions: worn on the giant it is represented by a series of small S-shaped markings; stripped from his body and held in the hand of Saul, it is shown with small circles evenly placed over the whole shirt.

These two illustrations are here described at some length; for the lesson



FIG. 43. WILLIAM THE CONQUEROR

His eighth representation on the Bayeux needlework; showing the conventional rendering of chain mail in two ways upon the same hauberk.—Note the clear outline of his sword hilt.

with talking - wrong  
st - Sauls armour  
and David, as at  
the head - cut  
now and all - rather  
cutting

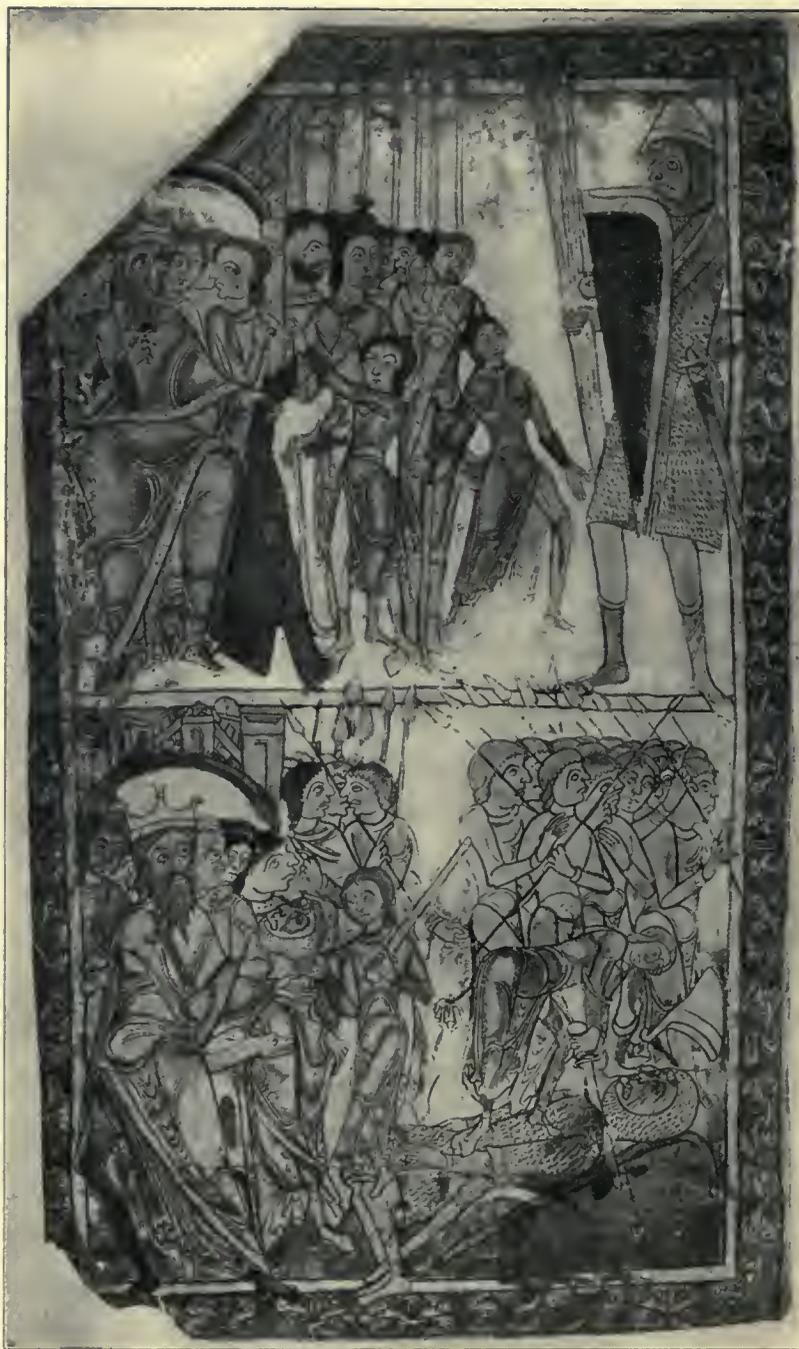


FIG. 44.

MS. Nero C. iv, about 1125, British Museum. In the upper picture the hauberk of Goliath shown in two conventional ways, though of necessity the same mail shirt. In the lower picture note the wheel pommels of the swords and formation of spear and lance heads

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they teach as to the extreme looseness of conventional mail-illustration is most instructive.

When, however, we see entirely different methods used in illustrating defensive coats or hauberks, all of which are chosen from the same Bayeux needlework (Fig. 45), we must stop to consider whether they are intended to distinguish real divergences from the conventionality of rendering.

However, when shirts are rendered as in our next illustration (Fig. 46), they were of the other types that were in use, which can safely be said to



FIG. 45. FROM THE BAYEUX NEEDLEWORK

Four conventional ways of what the author believes to be the ordinary hauberks of linked chain mail

differ entirely in their construction from the true chain mail shirt, and must therefore be placed in a different category. Doubtless they were those quilted coats of linen which in later years would be known as the *pourpoint* or later still jacks. They might also be made of leather, or be composed of scales of copper, iron, or horn sewn between layers of pliable material.

A certain similarity in the fashion of the armour prevails throughout, though in many cases the degree of protection afforded by the armaments varies considerably. One knight will be seen with his legs encircled in thongs; one with creaseless legs as if bare, though they were doubtless covered with cloth or leather; some appear in sleeveless hauberks and some

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with bare arms; others again are distinguished by wearing spurs or by riding bareheaded.

In the Cotton MS. Nero C. iv, which, as we have already stated, may be assigned to the last years of the XIth or early years of the XIIth century, we note a figure taken from a group entitled "Massacre of the Innocents" (Fig. 47). Here the hauberk is of different form from those depicted on the Bayeux needlework; it is not slit up at the front and back, but at the sides. Through the right-hand opening issues the sword scabbard, the top of which passes through a special aperture in the waist of the hauberk. A warrior wearing such a hauberk would find it impossible to straddle a horse, so we must take it that it was intended solely for use on foot. It will also be noticed that the sleeves of this hauberk reach almost to the wrist. The long pleated tunic beneath shows no signs of the gambeson.



FIG. 46. FROM THE BAYEUX  
NEEDLEWORK

This might be a quilted defensive garment  
of the brigandine type

Up to this point we have barely mentioned what is called scale armour. We have spoken of it as the leather *byrnie* of the Anglo-Saxons. But scale armour has been known in all ages and by every nation. In the Bayeux needlework we see the figure of Guy, Count of Ponthieu (Fig. 48), in a very clearly delineated hauberk of this fashion, the scales of which, from their magnitude, we should imagine to be of leather rather than of metal. It will be

noticed that it is a sleeveless hauberk, for doubtless scales of such size would restrict the free swing of the arms. The scale tunic was the most popular defence of the soldiery, even after Saxon times, owing to the simplicity with which the scales, of iron, copper, horn, bone, or even of horse's hoof, could be cut out and sewn on to a foundation of leather or cloth. These scales were of all shapes; some with the edges rounded and placed to overlap like tiles; often in groups of two; while in other instances each plate was rectangular, a fashion which, when displayed as we see it on one of the warriors of the close of the XIth century, drawn in Herr Hefner-Alteneck's *Trachten*, part i, Plate XII, gives a very excellent illustration of what Sir Samuel Meyrick will call "teglated" armour. We have not reproduced this plate, for we confess to a feeling of uneasiness in doing so as not having seen the original; for judged by certain of its details, as for instance its completely "teglated"

## EARLY NORMAN PERIOD

legs, feet and gauntlets, it would seem of a later date. It has, however, been accepted by some of the first authorities as being truly an example of the period, so we have alluded to it. It is stated that in the original miniature painting upon vellum the armour is silvered, which would be meant to represent iron.

The figure expressed by the Great Seal of William II gives us a good



FIG. 47. MASSACRE OF THE INNOCENTS

MS. Nero, C. iv, about 1125, British Museum showing a different type of hauberk, the sword worn on the right-hand side, and a later form of conical helmet

example of a scale suit as worn by persons of high rank at this period. In this instance the scales might even be of gilded iron or bronze. The hauberk reaches to the knee and is clearly of simple form, split up front and back to facilitate riding. As far as it is possible to see, it has long sleeves reaching to the wrist (Fig. 49). For an excellent illustration of the military attire of scale armour, though of rather later date, we illustrate one

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FIG. 48. FROM THE BAYEUX NEEDLEWORK

Guy, Count of Ponthieu, in a scaled garment, carrying the Danish or Norman axe. The head shown almost duplicates the example illustrated (page 26, Fig. 32)

general shape would be hard to detect owing to the crudeness of the drawing of those times.

They appear to guards protecting the that the Conqueror ings must needs lift his face when he cries wing that he still lives willing. Where the shows him tilting can see the coif of ness as worn beneath Let us examine the sentments of the exist—that on the on the coinage of the

of the statues of soldiers from the façade of Reims Cathedral (Fig. 50). In all probability the date of this statue is of the first quarter of the XIIIth century, but the large overlapping scales are remarkable, for they show but a very slight defensive advance from those depicted as worn by Guy, Count of Ponthieu.

\* \* \*

It is known that the helmets of earlier Norman times must have been usually conical, as no other shape appears on the Bayeux needlework, on the seals, or in the pictured MSS. of the XIth and early part of the XIIth century. But any slight variation in their



FIG. 49. THE GREAT SEAL OF WILLIAM I  
Construed by John Hewitt. From *Ancient Armour and Weapons in Europe*,  
by John Hewitt



FIG. 50.

SCALE BODY ARMOUR

From a statue of the early part of the XIIIth Century.  
Reims Cathedral

have had wide nasal-face; indeed, so wide at the battle of Hasting his helmet to show to the rout of the left and will conquer, God Bayeux needlework back his helmet, we mail in its complete—(see page 34, Fig. 41). only other two pre-Conqueror known to great seal and that time. In both of

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these crude portraits he wears a head-dress that is almost inexplicable; it might be a crown, a bonnet, or a form of helmet. On the great seal it has the appearance of a small hemispherical helmet with a raised nasal-guard—the skull-piece being held in position by a cord or thong on the



FIG. 51. (a) THE GREAT SEAL OF WILLIAM THE CONQUEROR

FIG. 51. (b) THE GREAT SEAL OF WILLIAM THE CONQUEROR  
 Construed by John Hewitt. From "Ancient Armour and Weapons in Europe," by John Hewitt

right-hand side (Fig. 51, *a*, *b*). This is but a conjecture on a point on which we are never likely to obtain enlightenment. On the coinage the headgear is more probably intended to be a crown, though it is of curious formation (Fig. 52, *a*, *b*).

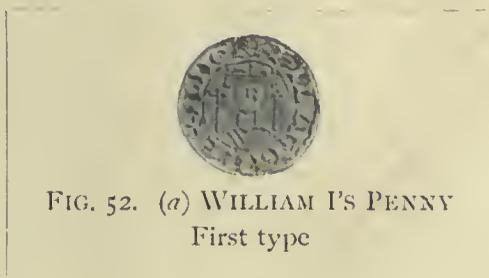


FIG. 52. (a) WILLIAM I'S PENNY  
 First type

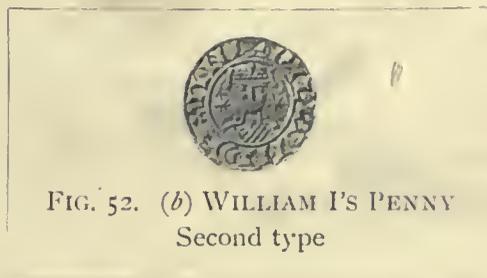


FIG. 52. (b) WILLIAM I'S PENNY  
 Second type

If we refer to two of the most carefully worked of the helmets in the Bayeux needlework—that worn by Duke William in his ninth representation, and that worn by his attendant in his third representation (Fig. 53) we see that they are apparently made in segments, strengthened by additional bands, covering the joints in the skull-piece and continuing around the

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lower edge of the helmet. Of what material these helmets were made is a matter of speculation. It may be assumed that in the majority of cases the skull-piece was of copper, as it was an easily worked metal, and if reinforced with bands sufficiently strong, could be made thoroughly useful. That the helmets were also fashioned of iron we have assurance from other specimens we illustrate.

The present writer is acquainted with only sixteen conical helmets extant, but only six of these we can safely assign to Norman times.

The first helmet is of copper, now in the Musée d'Artillerie of Paris II 1 (Fig. 54), to which Museum it was presented by M. Boucher de Perthes.



FIG. 53. FROM THE BAYEUX NEEDLEWORK

Ninth representation of Duke William and third representation of his attendant, both in conical segmented helmets with nasal guards

The whole helmet is forged out of one piece, conical in form, and truncated at the top, pierced about one inch from the apex, with a Russian cross and three holes. The simplicity of its form, together with the apparent absence of any means of attaching the lining, and the presence of three holes (probably rivet holes) would seem to suggest that parts of the helmet are missing; the missing parts were probably bands of bronze or iron; if these could be added, such a helmet as we see in the Bayeux needlework would be the result. The pierced cross might be for ventilation, and the three holes would be for the purpose of attaching the metal bands. It was found in the river Somme, near Abbeville, France. It is in all probability of the XIth century.

The second helmet is of iron; it is preserved in the chapel of St. Wenceslaus, of the cathedral of Prague, where it is attributed to St. Wences-

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laus, who died in the year 935 (Fig. 55, *a*, *b*). We have never had the opportunity of examining the helmet, but the authorities were kind enough to forward us a photograph, which is here reproduced. It is possible that the helmet might be of the Xth century, for upon the nasal-guard, and the border that encircles the lower edge of the skull-piece, a runic design is plated in silver, strongly reminiscent of the ornament seen on the decorated hilts of the so-called Viking swords of the IXth and Xth centuries. It is engraved in the Baron von Suttner's work *Der Helm vom selben Ursprunge*, Vienna, 1878.

The third helmet is of iron, now in the Imperial Armoury, Vienna (Fig. 56). It is forged out of one piece, inclusive of its short nasal-guard. This helmet was found in a tomb at Mähren, Austria. It probably dates from the XIth century.

The fourth helmet is of iron, and is also in the Imperial Armoury at Vienna (Fig. 57). It is forged from one piece. The nasal-guard is longer than in the preceding helmet, and finishes in a slight upward twist. It was found near Olmütz. It probably dates from the XIth century.

The fifth helmet is of iron, now in the collection of Count Hans Wilczek, Schloss Kreuzenstein, near Vienna (Fig. 58). It is much like the last two described, and is forged from one piece, though the nasal-guard is somewhat wider. It was, like Fig. 56, found in a tomb at Mähren, Austria, and probably dates from the XIth century.

The sixth helmet is of iron, and is in the collection of Dr. Bashford Dean of New York (Fig. 59, *a*, *b*). It is differently constructed, and now stands  $7\frac{1}{2}$  inches high, having lost its lower encircling band. It is composed of four sections, those of the front and back overlapping the side panels. The four joinings, in each case, being made by two rivets, having their heads in the interior. Each segment is  $6\frac{1}{2}$  inches wide at its base. This helmet is said to have been found in the north of France. It is somewhat difficult to assign it an accurate date, as it has a slight Oriental influence in its form. It can probably be accepted as being of the XIIth or XIIIth century.

The seventh helmet, of iron and copper gilt, now in the Hermitage, Petrograd (Fig. 60), is the famous head-piece attributed to Henry the Lion, Duke of Brunswick (1154-1195). The helmet came to this armoury as part of the Basilewski Collection from Paris. In the sale catalogue of that famous collection it was described as *Un heaume du XVI siècle*. It is said formerly to have belonged to the collection of Freiherr zu Rhein, who acquired it, according to the Freiherr R. von Mansberg, by a legacy from



FIG. 54. CONICAL HELMET (COPPER)  
Found in the river Somme, near Abbeville  
H. 1 Musée d'Artillerie, Paris



FIG. 56. CONICAL HELMET (IRON)  
Found in a tomb at Mähren, Austria  
Imperial Armoury, Vienna



FIG. 57. CONICAL HELMET (IRON)  
Found near Olmütz  
Imperial Armoury,  
Vienna



FIG. 58. CONICAL HELMET (IRON)  
Found in a tomb at Mähren, Austria  
Collection: Count Hans Wilczek, Schloss  
Kreuzenstein

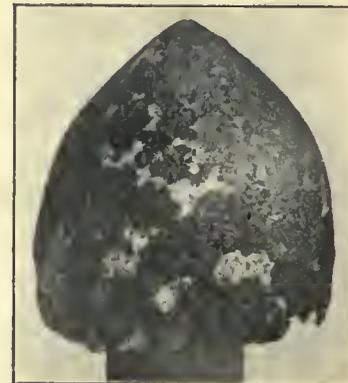
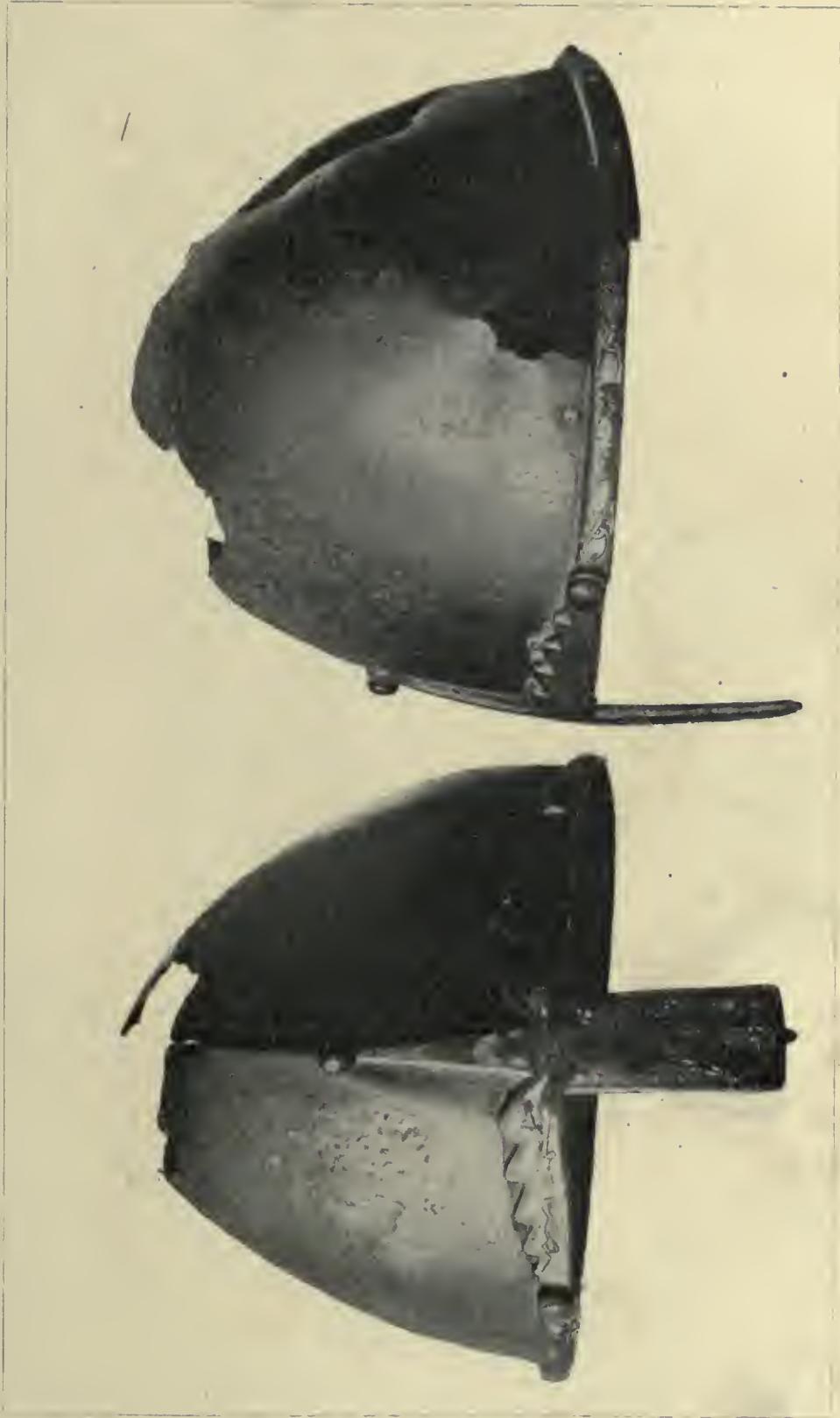


FIG. 59. (*a* and *b*) CONICAL SEGMENTED HELMET (IRON)  
Found in the north of France. Profile and back views  
Collection: Dr. Bashford Dean, New York



(a) Front view

(b) Profile view

FIG. 55. THE SO-CALLED HELMET OF ST. WENCESLAUS

Preserved in the Chapel of St. Wenceslaus, Cathedral of Prague

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the Duchess of Berry. The assertion of the late Herr Wendelin Boeheim that the helmet was in the possession of a Duke of Cumberland is erroneous. Boeheim assigns the helmet to Duke Henry the Lion, whilst Freiherr von Mansberg refers to it as "The historical and identical original helmet of Henry the Lion," though, as far as we know, there is absolutely no reason for such an assertion.

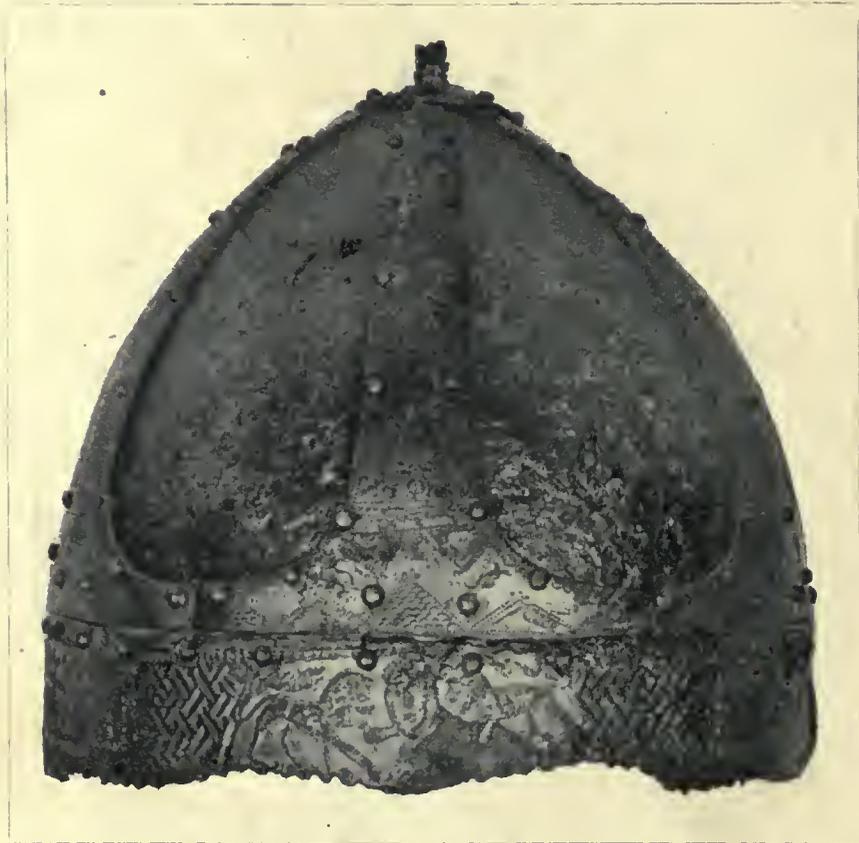


FIG. 60. HELMET OF IRON AND BRONZE KNOWN AS THAT OF HENRY THE LION  
In the Hermitage, Petrograd

The "Henry the Lion" helmet is constructed of iron, attached to four bronze foundation hoops, forged to the apex, which is capped by a plate, to which is fastened a small cylindrical form, now broken. These bronze bands are thickly plated with gold. The lower part of the helmet is encircled with a band of iron, on to which is riveted a strip of gilded bronze, embossed with two figures of lions standing on either side of a male mask. It will be noticed that the lower edge of the helmet is slightly arched above the eyebrows. There is, however, no suggestion of a nasal-guard. Around the base

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of the helmet, where it is not broken away or too much corroded, may be seen a series of small holes that were doubtless for attaching the lining.

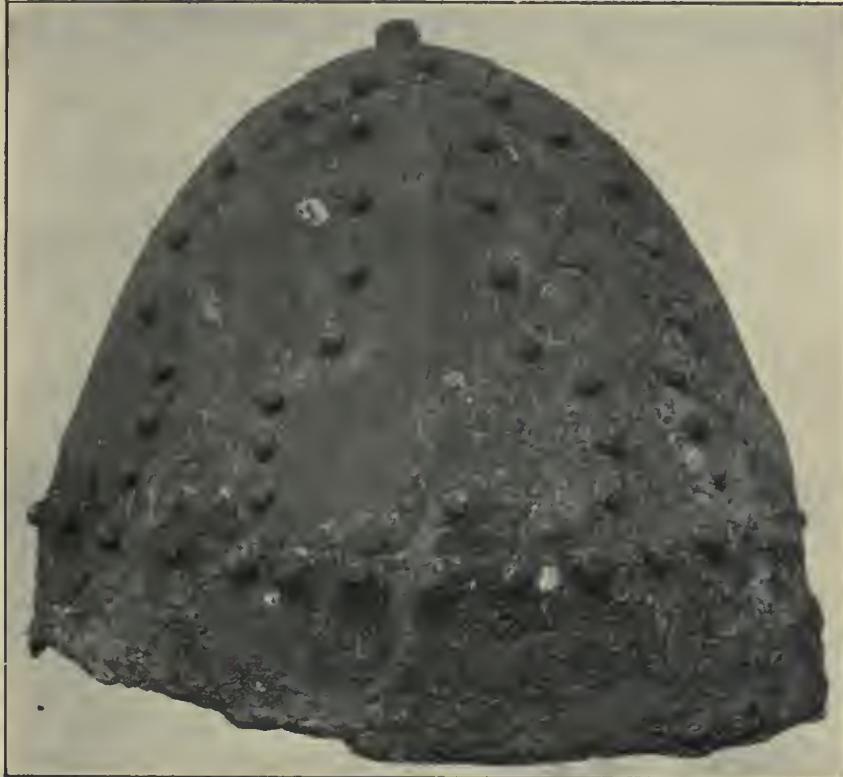


FIG. 61. CONICAL HELMET -

Sassanian (?). Probably from Van. VIth to IXth century. British Museum



FIG. 62. GOLD PLATE FROM THE BROW OF A HELMET

It belonged possibly to Agilulf, King of the Langobards (590-615)  
Bargello Museum, Florence

There has been of late years a controversy by experts as to whether or no this particular class of helmet, to which this and all the remaining conical head-pieces to which we shall allude belong, are not of a far greater

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antiquity than the period with which we are now supposed to be dealing; indeed we can go as far as to quote a helmet of almost similar construction in the British Museum, the eighth helmet in our list (Fig. 61), which has been assigned by the museum authorities to a period between the VIth and IXth centuries, and is stated to be Sassanian and probably from Van. Strongly endorsing this view as to the age of this type of conical head-piece, we can quote from a learned treatise by Herr von Ubisch, keeper of the

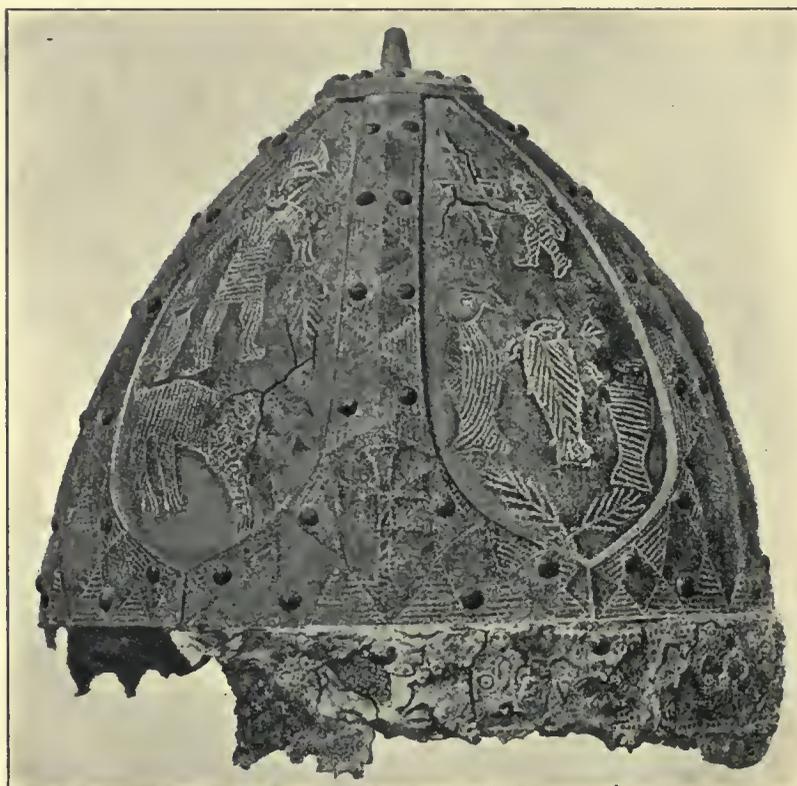


FIG. 63. HELMET OF IRON PLATED WITH GOLD

Found in 1896 at Guilanova, south of Ancona. *Zeughaus*, Berlin

*Zeughaus*, Berlin, on the helmet (Fig. 63), who heads his description of it: "A Langobard (Lombard) helmet of the first half of the VIIth century." Herr Ubisch brings forward as evidence as to the age of such helmets a gold plate in the museum of the Bargello, Florence (Fig. 62), which in itself is that portion of the encircling band from a helmet, shaped to fit above the eyes. It is embossed with figures wearing helmets of exactly the same type as these under discussion. The central figure on this gold plate has the name AGILULF inscribed level with the head. The appearance of this name

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very naturally led Herr Ubisch to suppose that this example of goldsmith's work was part of a golden helmet worn by Agilulf, King of the Langobards (590-615) and husband of the famous Theodolinde. If this be the case, it would therefore point to the fact that the remaining conical helmets (Figs. 60 to 68) that we record are not Norman, but date from the VIth to the IXth century, a somewhat disconcerting admission to make, as instead of sixteen



FIG. 64. BRONZE AND IRON HELMET DISCOVERED IN FINLAND  
Imperial Armoury, Vienna

conical Norman helmets being known to us, we shall have to acknowledge only the first six helmets to be Norman, admitting the possibility that the latter ten may belong to Merovingian or Carolingian times.

The ninth helmet, of iron overlaid with gold (Fig. 63), was found in 1896 at Guilanova, south of Ancona, passing into the possession of Herr J. Rosenbaum of Frankfurt, who in 1903 ceded it to the *Zeughaus* of Berlin. The six bands that build up the skull-piece are connected at the top by a small circular

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plate, the whole put together with hemispherically headed rivets. Upon the surface, executed with a graving tool, are represented crude figures of horses, oxen, birds, and fishes, with palm-like leaves and vessels, that in appearance resemble chalices. Herr Ubisch has construed this ornamentation to have reference to the Christian faith, and considers that it is the earliest known armament to bear such emblems. The longitudinal bands have a chequered design upon them (Fig. 63).

The tenth helmet (Fig. 64), together with the next to be described, both



FIG. 65. BRONZE AND IRON HELMET DISCOVERED IN FINLAND  
Imperial Armoury, Vienna

of iron and bronze gilt, are two of the most recent purchases made for the Imperial Armoury of Vienna; both were excavated in Finland. It has many features in common with the helmet just described, and the so-called "Henry the Lion helmet." The construction is the same, also the method of decoration. It was a poor crushed example when found, but it has been skilfully and judiciously restored.

The eleventh helmet (Fig. 65), as just stated, is also in the Imperial Armoury at Vienna, and was likewise excavated in Finland. In construction it is the same as the last described, but the lining plates are of plain iron

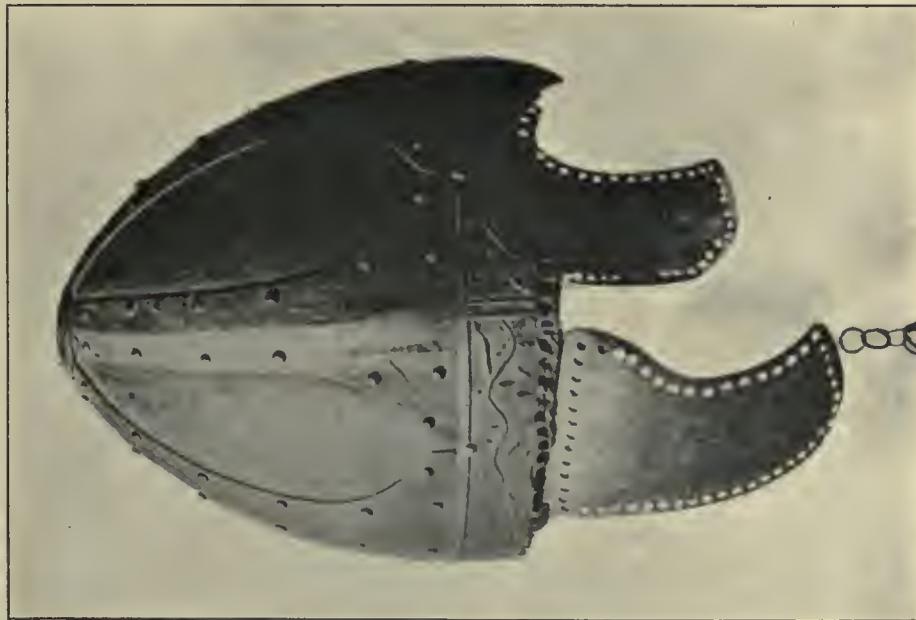


FIG. 66. HELMET OF COPPER WITH EAR-PIECES  
AND REMAINS OF A NASAL-GUARD  
Museum of Grenoble

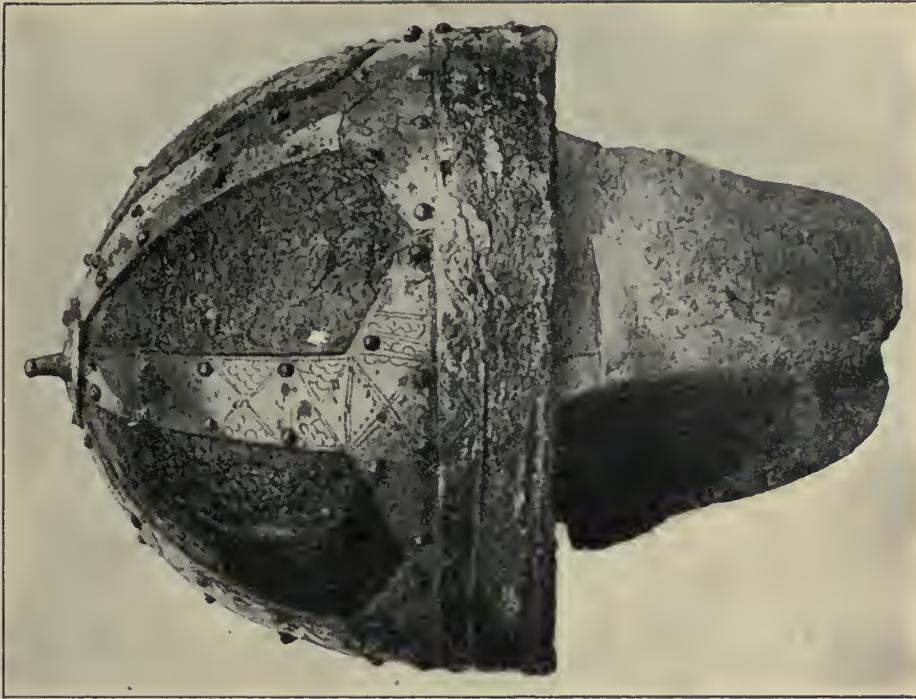


FIG. 67. HELMET OF IRON AND COPPER FOUND AT  
GÜTLINGEN  
Museum of Stuttgart

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only, and the skull-piece is but divided into four segments. It is in fragile condition, but the outline is not lost.

The twelfth helmet (Fig. 66) is in the same category as the last described as regards construction, though it is wholly composed of copper or bronze. It is also far more complete, as there is the indication of the nasal-guard, and it possesses the extremely interesting feature of hinged ear-pieces; the method of its decoration is the same—barbaric, but effective. In the opinion of the antiquary, M. Jules Quicherat, it belongs to the Merovingian period, as it was found in 1870 in a turf pit at Vézeronce (Isère), which is supposed to



FIG. 68. REMAINS OF A BRONZE HELMET WITH TRACES OF GILDING  
Museum of the Friends of Science, Posen. Excavated at  
Giez in the province of Posen

have been the locality where a battle took place in the year 524 between the Burgundians and Clodomir, King of Orleans. In subsequent arguments it has been assigned to the close of the Carolingian epoch. It bears a great likeness to the helmets the soldiers are represented wearing on the famous capitol of the Granet Collection in the Aix Museum. This capitol is now considered to belong to the opening years of the XIth century, but since the remarkable likeness of this helmet to that of "Henry the Lion," and indeed to all the others of this class we have mentioned, we have now great hesitation in assigning it to so late a date. It was presented in 1873 by M. Bron to the museum at Grenoble.

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The thirteenth helmet (Fig. 67) is of iron and copper gilt, and possesses ear-pieces like the helmet just described. It was found at Gltlingen, and is now in the museum of Stuttgart. The construction is much like the Henry the Lion helmet, but five bands radiate from the apex instead of four.

The fourteenth helmet is in the museum of Sigmaringen. This we have



FIG. 69. A RECONSTRUCTED NORMAN HELMET  
Late XIth century type

not seen, neither have we been able to obtain a photograph, but Herr von Ubisch likens it to our illustration (Fig. 63).

The fifteenth helmet, according to Herr von Ubisch, is in private hands in Austria; we are unable to obtain either a photograph or description of it.

The sixteenth helmet (Fig. 68), of much the same type as the others described, is but a poor broken fragment—a shadow of its past splendour. It

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was excavated at Giez in the province of Posen. The whole is of bronze with certain remains of gilding. The modelling of the skull-piece is graceful, and is made of two halves welded together. The crown-shaped border and plume-holder show traces of their former gilding. At the lower edge are remains of staples by which ear-pieces might have been attached. Giez was destroyed by the Bohemians in 1039. The helmet is now in the Museum of the Friends of Science, Posen.

When Mr. Seymour Lucas, R.A., was commissioned to paint for the Royal Exchange the panel illustrating the subject of William the Conqueror granting the first charter to the citizens of London in 1067, he went most carefully into the matter of the Norman helmet, and from drawings and

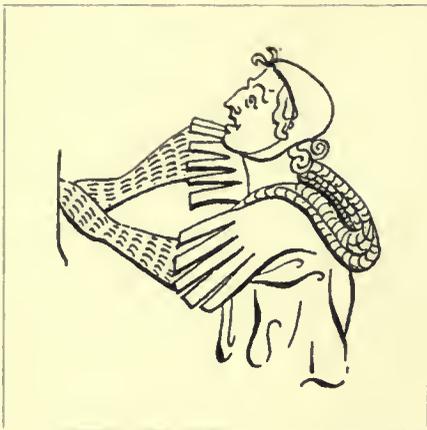


FIG. 70. FROM THE ALBUM OF  
VILLARD DE HONNECOURT  
(ABOUT 1260)

Showing a close-fitting bonnet of material worn beneath the chain mail coif

notes which he then collected, had one reconstructed. By his courtesy we are able to reproduce it, and we give it as illustrating with much truth a characteristic Norman conical helmet of about 1080 (Fig. 69). It may be added that many impudent forgeries of these Norman conical helmets are in existence, some made as early as fifty years ago, and others, far more skilfully forged and difficult to detect, produced within the last few years in a factory outside Paris. They will be found described in Appendix I dealing with forgeries.

We should have imagined these conical helmets to have been very wide at their base, as for instance we see in the Eastern helmets of practically the same type but belonging to the XIVth and XVth centuries, for we have to remember they were usually depicted worn over the coif of mail, which in its turn was lined and probably padded, thus necessitating a helmet with a considerable base measurement to fit comfortably over these additions to the circumference of the head. However, from the evidence of those helmets we have examined and pictured, this is not universally the case, for many are of no greater circumference at their base than the small mid-XIVth century bascinet. We can therefore only surmise that many of these conical helmets were worn without the coif beneath, this class being distinguished by the presence of the holes round their lower edge to which the protection coif or lining was directly sewn. There was usually no separate protective apparel beneath

## EARLY NORMAN PERIOD

mail coif, though we do see, at a slightly later period, a close-fitting bonnet of leather or some other material as a separate piece worn under the chain mail, as shown in the illustration taken from the album of Villard de Honnecourt (Fig. 70). The helmets must have been attached to the head by some means which is now not easy to determine. Close inspection of some of the helmets of the soldiers in the Bayeux needlework reveals the fact that there are three projections at the back of the helmet that may be intended to represent the leather thongs by which the helmet was secured; not being in use, they are shown loose in the wind.

It is worth noting that some helmets in our illustration (Fig. 71) chosen from the Bayeux needlework are here and there shown with a neck defence, which might possibly be described as a primitive camail: for in one or two instances it reaches to the ears on either side, and descends to the shoulders.

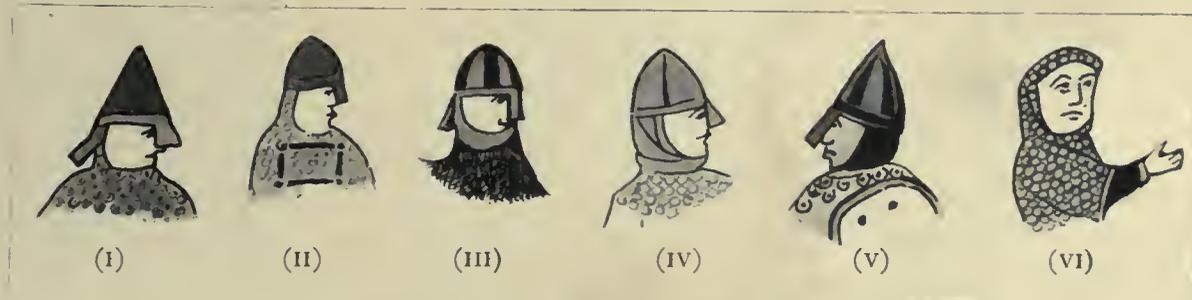


FIG. 71. FIVE SELECTED HELMETS AND A COIF OF MAIL DEPICTED IN THE BAYEUX NEEDLEWORK

Showing the divers types of nasal-guard, neck-guard (?), etc.

These helmets must have resembled very much the conical helmets with quilted neck protections and prominent nasal-guards taken from the Soudanese after the battle of Omdurman in 1898. We illustrate three of these helmets (Fig. 72) which, from their crudeness of workmanship, might have belonged to any age, but which, as a matter of fact, are XIXth century adaptations of ancient material, though as they now appear are angleform like the helmets figuring in the Bayeux needlework.

With the last years of the XIth century we see but little alteration in the form of the helmet; perhaps it may have decreased somewhat in height and have grown a little more shapely in its outline. From the Great Seal of William II we notice that the nasal-guard is there certainly a part of the helmet. On referring back to page 41 (Fig. 47) we see a soldier whose nasal-guard is distinctly drawn out of the helmet itself and not attached to

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it: the skull-piece likewise shows more accomplished moulding. The Anglo-Saxon helmet on the Phrygian-cap model had not yet disappeared, and was occasionally adopted by the Norman soldiery; we can refer to it in a MS. of the period (Harl. MS. 603). Indeed, as late as 1149 a Phrygian-cap model is represented on the famous enamelled plate now preserved in the Museum of Mans, whereon is Geoffrey, Count of Anjou (page 77, Fig. 93).

Although other changes in the outline of the helmet of this period are traceable here and there, they are too slight to be of much importance.

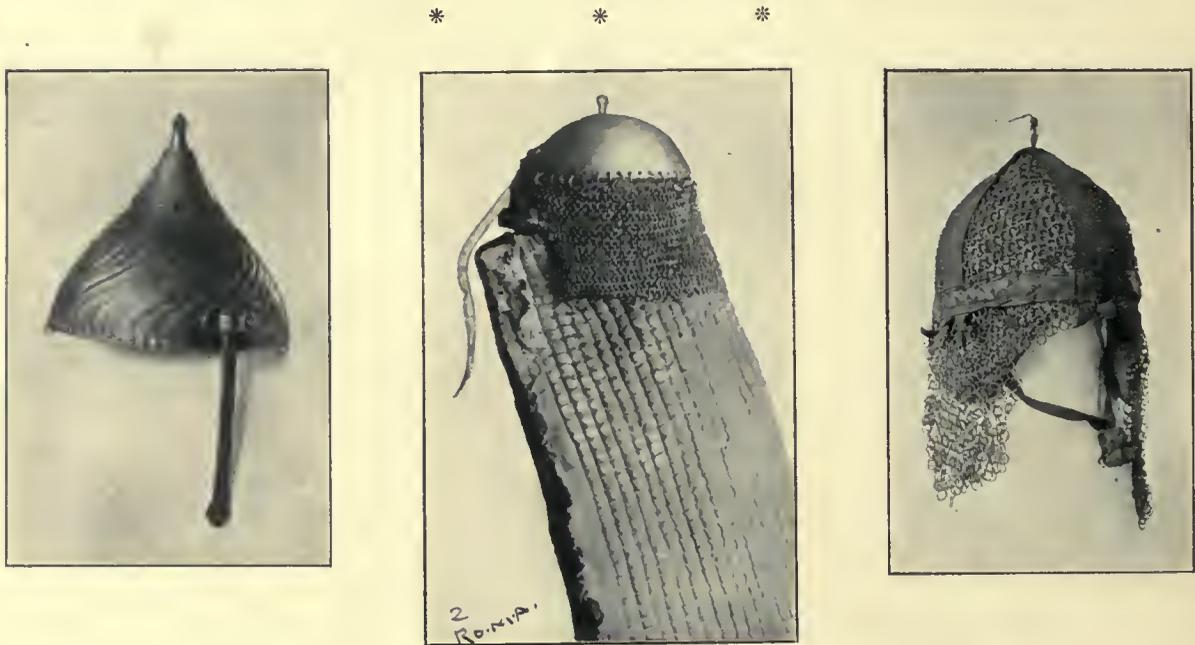


FIG. 72. THREE HELMETS FROM THE SOUDAN  
Made of old material, but adapted for modern usages

The shield, the principal auxiliary defence, has now become a very prominent feature of the warrior's equipment. As we have already explained, the circular shield was, at the time of the Norman invasion, characteristic of the defenders. In the Bayeux needlework we see the knights of Harold clad in armour similar to that of the attacking force; but many carry the circular shield of the Saxon (Fig. 73), although Harold and some of his principal knights bear the kite-shaped shield of the Norman. Invariably, however, the Norman knights are depicted with the large kite-shaped shield, which was from four to four feet six inches in height.

In nearly every missal of this period, shields similar in shape to those seen in the Bayeux needlework make their appearance. It has been said that

## EARLY NORMAN PERIOD

the devices upon the front face of the shield are the earliest forms of heraldic blazon known (Figs. 74 and 75). It is difficult, however, to believe that



FIG. 73. FROM THE BAYEUX NEEDLEWORK

Showing the circular shield of the Saxon. The profile view of a circular shield in the lower margin has been for the purpose of this illustration altered from the proper position in the needlework

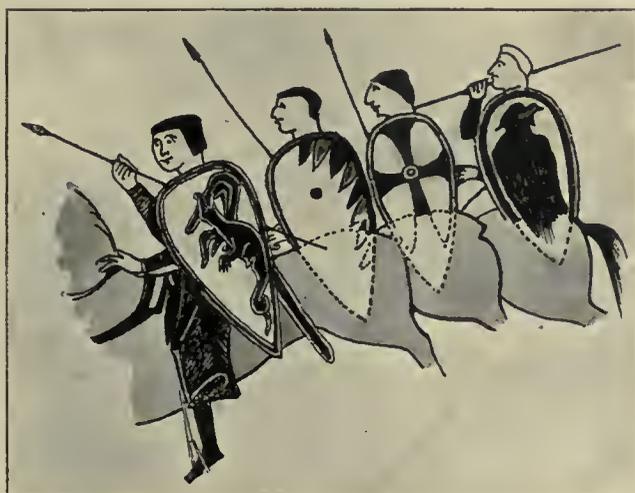


FIG. 74. NORMAN SHIELDS VARIOUSLY DECORATED

Drawn from the Bayeux needlework. The attendants on Guy, Count of Ponthieu



FIG. 75. THE SHIELD OF DUKE WILLIAM

From the Bayeux needlework. Showing also his gonfanon

these crude and indescribable markings on the shield possessed any heraldic significance, or, indeed, had any other purpose than that of mere orna-

## EUROPEAN ARMOUR AND ARMS

mentation (Fig. 74). On the other hand, the devices which appear on the bannerets or gonfanons consist in fairly regular arrangements of crosses and dots.

It is noticeable in the Bayeux needlework that no knight bears the same device on his shield as on his banneret, which would rather go to show that neither had any particular significance; but if either had, then we are inclined to select that on the banneret as possessing a more purposeful design.

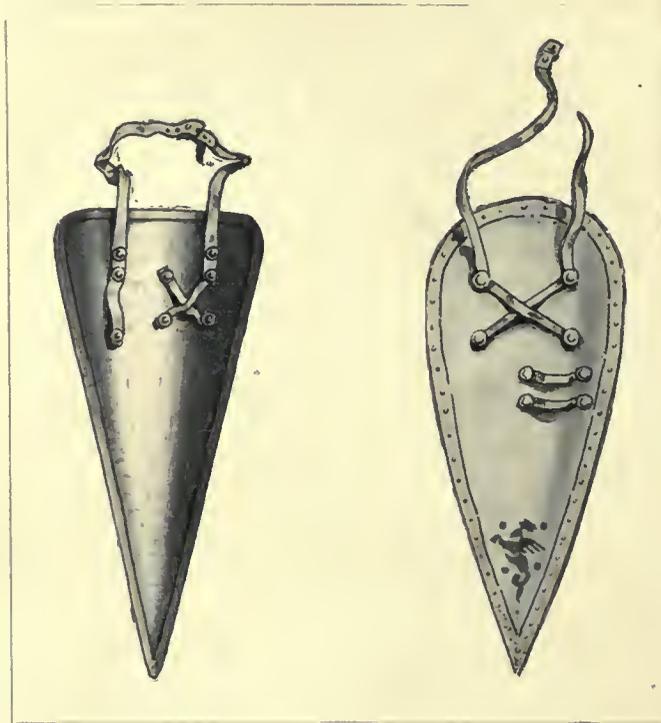


FIG. 76. THE MEANS OF THE ATTACHMENT OF THE ENARMES AND  
GUIGE TO THE INTERIOR OF THE SHIELD

Suggested by Viollet-le-Duc

It is not unlikely that as time advanced the ornamental devices borne by a knight became distinguishing features of his equipment, and that it was then that he adopted some recognizable emblem appropriate to his birth, or to his fame. Owing to their perishable nature, no shields of this time have been handed down to us. They had a foundation of wood—often scarified lime wood—overlaid with dressed hide, parchment and linen, and were fancifully tinted, with only the smallest metal reinforcements for the purpose of binding them together.

On the inner side they had the leather arm straps, known as enarmes,

## EARLY NORMAN PERIOD

likewise a suspending loop to be passed round the neck, called the guige (Fig. 76). This extra means of attachment was almost a necessity, for from the very unwieldiness of the Norman shields, the enarmes could barely do their duty alone. The shield, when not in use, could also by this means be slung on the back, and it was possible to give the free use of both hands for wielding a weapon or controlling a horse. Wace, the Norman poet, in *Roman du Rou*, speaks of the advantage this extra means of attachment gave to his countrymen over the English, for "When they wished to strike with



FIG. 77. HAROLD REPRESENTED IN THE BAYEUX NEEDLEWORK

Showing the lobated pommel and belt of his sword



FIG. 78. A NOBLE FROM THE SAME GROUP

Showing his sword and the buckles of the belt clearly defined

their battle-axe, they were forced to hold it with both hands; to strike strong, and at the same time to cover themselves, was what they could not do."

It seems that from the very earliest times only those who were able to wear a sword, as a thegn, were privileged to bear the shield; and the same custom held good in Norman times, when the knight and squire were the lowest in the scale of nobility to possess this privilege.

Before the Conquest "Knight" signified a military dependant of the great land holder. The order of Knighthood afterwards became the distinguishing mark of a man who owned 500 acres of land. In 1166 from Henry II Cartiboronum we learn there were 5,000 mounted knights in

## EUROPEAN ARMOUR AND ARMS

England, including 800 church fief knights. The fyrd could muster about 60,000 men. English thegns bought back their land by service, and by providing one mounted man for 500 acres. On the Continent the Knight was called *miles*, the man-at-arms, *serviens*, or sergeant.

\* \* \*

In passing to the offensive weapons, we will consider the sword first.

It is really difficult to differentiate between the sword of the Norman conqueror and that of the conquered. We note no appreciable divergence in their character until towards the close of the XIth century, when, in addition to the lobated pommel to the hilt, we see the flat wheel pommel first make an appearance, as also the Brazil nut form, which becomes the usual type and supersedes by degrees the lobated variety. The quillons still remain of robust proportions, and are, as a rule, straight: at least in every case they are so represented in the Bayeux needlework.

One of the most satisfactory illustrations taken from that source shows the sword carried by Harold in the incident where he parleys with Guy of Ponthieu. Here, as he holds his sword, the lobated pommel is clearly visible, likewise the short, thick, straight quillons (Fig. 77), whilst a noble from the same group of figures holds a sword the details of which are clear (Fig. 78).

The scabbard is shown, and the locket—to which is attached the belt, the buckle being accurately defined. A second sword in this same needlework roll that is distinctly represented is that worn by the Conqueror, where he is seen about to mount on his advance to meet Harold (page 37, Fig. 43). The profile of the hilt there shows it to be a sword with a lobated pommel, and short straight quillons, very similar to the sword in the Wallace Collection (page 15, Fig. 17).

The pommels of certain of the sword hilts in the Bayeux needlework may be intended to be those of wheel formation, but from the extreme crudeness of the drawing and rendering, this point cannot be determined.

Swords of this precise period, other than those with the lobated pommel, have very little to distinguish them from weapons of a later date, say up to the middle of the XIIth century, when onwards for a period extending over a hundred years the Brazil nut and primitive wheel-shaped pommels gradually superseded them.

\* \* \*

Next to the sword, the lance may be considered as the most distinguished knightly weapon, but there is little that can be said about it. It appears to

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have had an average length of from ten to twelve feet. The iron head was either drawn out in an elongated leaf form, with a neck into which the haft was fixed, or it was more robustly fashioned without a neck, the haft being sunk into the head itself, as we see in the Harl. Roll 76, Cotton MS. Nero (page 70, Fig. 87).

In the Bayeux needlework the gonfanon is continually represented, resembling the pennant on a modern military lance.



FIG. 79. AXE HEAD  
Mid XIIth century (the haft  
modern)  
Collection: Baron de Cosson



FIG. 80. ODO, BISHOP OF  
BAYEUX, ARMED WITH A  
BASTON

From the Bayeux  
needlework



FIG. 81. A MACE AND JAVELIN  
IN FLIGHT

From the Bayeux  
needlework

The axe was likewise a knightly weapon, but the variations in its form were inconsiderable; we see but one type represented in the Bayeux needlework. The *byl* of the Saxon, with its long handle and more or less triangular head, is little different from the weapon of the Norman. The axe-head appears seldom to have been subject to surface decoration, for only a few isolated specimens that have been found are inlaid or plated with gold or silver; but that occasionally they were delicately formed we see by the specimen (Fig. 79). It will be noticed that the top of the cutting edge here

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terminates in a delicately drawn-out backward curl, while the neck that connects the head of the axe with its haft is narrow and elegant, although of strong, square-shaped section.

This axe-head was formerly in the collection of the Baron de Cosson, who unhesitatingly places it as belonging to the middle of the XIIth century. It was found in the lake of Lucerne.

Of the less important weapons, that which we now call the mace deserves first place. Duke William in his eleventh representation upon the Bayeux needlework brandishes such a weapon in its most simplified form. As represented, it appears no more elaborate a weapon than a long



FIG. 82. Norman archers

FROM THE BAYEUX NEEDLEWORK

shillelagh (page 34, Fig. 41). It was doubtless the *baton-ferie* with rings of metal, such as, even to-day, is used by the Khond tribes of Central India.

Odo, Bishop of Bayeux, is similarly armed, thus evading the denunciation against those who smite with the sword (Fig. 80). Wace describes him: "*un baston tenoit en son poing.*"

The knight immediately behind William in the Duke's ninth representation in the Bayeux needlework carries the baston, but with a tripartite head, which we associate with the maces of a much later date (page 44, Fig. 53). We likewise see, in the roll, where the battle of Senlac rages

## EARLY NORMAN PERIOD

most fiercely, a mace with a trefoil-shaped head flying through the air, as if hurled by one of the defending side (Fig. 81). This may be a primitive instance of the XVth century German throwing-axe or *Wurfbeil*. The throwing-axe was certainly known to the English in the XIth century, as King Cnut ordered "the throw of an axe" as a space measure.

The javelin, a slender weapon with a barbed head, in bundles of four or more, is carried by some of the knights of Harold's army.

\* \* \*

The Norman bowmen also appear in large numbers in Duke William's attacking force, some clad in mail hauberks, and others apparently unarmoured, save for a small conical helmet (Fig. 82). The bows appear to be about four feet long, and of very strong build. Each archer bears a quiver, and, in some instances, holds in the bow hand a bunch of barbed arrows. The Conqueror placed great reliance upon his archers, and, according to Henry of Huntingdon, after his victory at Hastings, reproached the Saxons for their want of proficiency in the use of the bow.

\* \* \*

The dagger, which was still but a useful domestic implement in the form of a back-edged knife, does not appear as part of the knightly military equipment. Those that have come down to us cannot, with any degree of accuracy, be sorted, and may be accredited to any one of the Xth, XIth, or XIIth centuries.

## CHAPTER III

CONTINUED GENERAL HISTORY OF ARMOUR, ARMS, AND ACCOUTREMENTS

A.D. 1100—1320



WITH the invaluable assistance of the Bayeux needlework to guide us, we have now carried our subject into the first half of the XIIth century. As we proceed, we find the pictorial authorities, from which we can choose illustrations to assist us in tracing the evolution of military equipment, more plentiful and clearer in detail. But it is impossible to take advantage of these in describing all the minor changes that take place as the years advance; otherwise our work would run to unwieldy proportions.

The hauberk, still the principal armament of the knight, remains much the same in form, although worn rather longer. It seems also to be more shapely; but this fact may be a mere pictorial illusion due to the improvement made in drawing by the artists who illustrated the missals.

A series of full-page illustrations representing the life of Christ, in the possession of the Pierpont Morgan Library, New York, one page of which, by kind permission, we are able to reproduce, gives us matter for study. Originally prefixed to a liturgical manuscript, either a psalter or a gospel book, it has been suggested that Limoges was the place of origin of these illuminations, and about the year 1170 the date of their production (Fig. 83).

In these pictures it will be observed that a new feature has been introduced—the *chausse* of mail, as previously leather thongs appeared for the most part the protection for the legs from the knee downwards. Probably this development in the leg defence was the outcome of the evolution of half a century, but in these particular illustrations of about 1170, it appears universal. Doubtless, could we come across some illustrations covering the previous fifty years, we should see the mail *chausse* only in partial use. The plate selected for illustration is “The Betrayal of Christ,” which has special interest for us, owing to the number of armed figures introduced into it. On the right of the composition are four soldiers whose armaments show a more distinct advance than any other figure illustrated at this time that we have come across. The subject is painted in colours, blue, red, orange, green, and gray upon a gilded ground. The style of the painting is clumsy and unsightly,

## GENERAL HISTORY A.D. 1100—1320

the eyes of the figures are usually too large, and the attitude stiff. From the heaviness of the face lines one is reminded of the technique of the earliest painted glass. However, notwithstanding the artistic defects of the picture, a close study of some of its principal figures will prove of the greatest interest. Selecting first the soldier who grasps the hand and garment of



FIG. 83. FROM A LITURGICAL MANUSCRIPT, "THE LIFE OF CHRIST"

Probably painted at Limoges during the third quarter of the XIIth century  
Pierpont Morgan Library, New York

Christ, we note the shape of his mail hauberk. It descends to just above his knee and is divided in front up to the fork of his legs. Around its lower edge is a binding of what appears to be leather. The hauberk, owing to its weight, clings closely to the legs and body, and so suggests a satisfactory explanation of the trouser-like aspect of the hauberk skirts that figure in the Bayeux needlework; for it is clear if any of the soldiers in this illustration were viewed in direct profile, the lower part of the hauberk would certainly

## EUROPEAN ARMOUR AND ARMS

have the same appearance. An idea of the weight of the hauberk is cleverly conveyed by the artist in making the orange-coloured under-garment spring out below its lower edge. The sleeves of the hauberk are tight-fitting, and extend almost to the knuckles; the hauberk also does not stop at the neck, but is one with the large and full coif of mail, the upper portion of which is lost to sight beneath the low conical helmet. To prove conclusively the contemporary use of the chain shirt with and without the mail *chausse*, we



FIG. 84. THE HUNTINGFIELD PSALTER; LATE XIIITH CENTURY  
Pierpont Morgan Library, New York

reproduce an illustration from the illuminated Huntingfield Psalter, also in the Pierpont Morgan Library. This Psalter is of known English workmanship of the end of the XIIth century, and was formerly in Mendham Priory, Suffolk. The illumination chosen is from f. 156, 27, depicting the Israelites gathering from the shores of the Red Sea the armour of the drowned Egyptians. Helmets and hauberks are there in profusion (Fig. 84). The hauberks are large and complete, with long sleeves and coifs, all in one, exactly the same as those worn by the soldiers in the "Betrayal" illustra-

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tion. The hauberks are being held out by the Israelites for inspection, so their outline is most clearly defined. Their surface is conventionalized by crescent-shaped strokes with dividing lines; but most curiously they are



FIG. 85. THE HUNTINGFIELD PSALTER; LATE XIIITH CENTURY  
Pierpont Morgan Library, New York



FIG. 86. ILLUSTRATION FROM TITUS LIT. DXVI, J. 6; LATE XIIITH CENTURY  
Showing the long hauberks with full sleeves. British Museum

coloured a pale green, for what reason we are at a loss to understand. We likewise see lying about other objects of uncertain shape, with a mail painted surface: these possibly are intended to portray *chausses*. In another

## EUROPEAN ARMOUR AND ARMS

illustration in the same Psalter we see Goliath clothed in a mail hauberk of great completeness: indeed, his war apparel might, from its character, be easily associated with the first quarter of the XIIIth century, yet his legs are unarmoured (Fig. 85).

Other good examples of the use of the hauberk as the sole armament without the *chausses* may be mentioned. One is in the illustration taken from Titus Lit. dxvi, j. 6, where the figures, though they are mythical, are habited in what appears very real and ample coats of mail (Fig. 86). The hauberks are in every respect similar in cut to those we have already been



FIG. 87. FROM THE HARL. ROLL 76, COTTON MS. NERO; LATE XIIITH CENTURY  
British Museum

discussing, but they fall below the knee, and show much wider sleeves. Their conventional representation is certainly that of interlinked chain mail, although it is rather untidy and weak in the drawing. The manuscript with these illustrations may be assigned to the third quarter of the XIIth century; so that it will be noticed with interest that the legs of the combatants are unarmoured. This is also the case with the figures in the illustration chosen from Harl. Roll 76, Cotton MS. Nero. Here it will be observed, however, that the hauberks are short but that the legs are still represented bare save for what appears to be a buskin boot. In this illustration we see, however, a new and advanced departure in the shape of the helmet (Fig. 87).

In our reference to the hauberks of the invaded English, on pages 6

and 7, we gave a very brief general description of what might have been their actual composition; but we have no direct authority for the views there expressed. We have passed over the succeeding hundred years, and even yet we have no authority to guide us in our endeavour to throw light on the exact methods that were employed in the making of the hauberk and the coif of the Norman conquerors. In fact, we may say that we are now even more uncertain on the subject; for with the increase in the number of pictures as the years pass by, a proportionate increase in the conventional representation of chain mail is also manifest. Let us look once more carefully at the hauberk of the soldiers in the "Betrayal of Christ" (page 67, Fig. 83), the shape of which we have been discussing. The surface of the armour protecting the body, arms, and head is represented by a series of crescent-shaped strokes running in diagonal rows around the body; these rows are divided by dual lines. The whole is painted bright blue. But we notice that the mail *chausses* upon the same figure are rendered in a different manner, namely, by crescent-shaped markings without the dividing lines between the rows. Again, the mail worn by the soldier holding the lantern immediately on the right of the principal figure of the group is also different from the hauberk of the first soldier, and the legs of a third are clad in mail represented by cross-hatching and dots, familiar in the Bayeux needlework. The question which presents itself for consideration—and it is one which cannot now be definitely settled—is whether these different drawings are intended to represent one and the same thing, *i.e.*, interlinked chain mail, or whether each really represents a distinct make of mail armour. If we are to take the latter view, then we have only our imagination to draw on in reconstructing the various types suggested by these crude drawings.

The representation of mail by diagonal arrangements of crescent-shaped markings, with dual lines between each set, may possibly constitute an attempt to portray double strips of leather interwoven through every other row of links, or rings between two layers of leather. The hauberk worn by the foremost soldier certainly gives the appearance of having every other row of rings threaded with flat strips of leather, the width of the interior circumference of the ring or what has been termed "banded" mail. The objection to this process of strengthening the hauberk is a certain difficulty in construction which does not seem to be compensated for by any extra utility gained. The first difficulty would arise in getting the thongs actually the same length in the large circumference of the body, for one thong of leather is more liable to stretch than another, the result of which would be

## EUROPEAN ARMOUR AND ARMS

the general inclination to drag the hauberk out of shape. Admittedly superior power of defence, likewise greater rigidity, would be obtainable when the hauberk was newly thonged; but after a few days of wear the leather straps would curl round to the shape of the rings and they would lose their utility in giving support. Again, if the leather strips were passed through every row of rings the hauberk would lose a great deal of its flexibility. This was the disadvantage of the reinforced mail of the latter part of the XVth century, when the system of widening the rivet joint of the links, in order to make the mesh of the mail smaller, was often carried to such an extent that the hauberks lost nearly all their flexibility. A hauberk in the collection of Dr. Bashford Dean, of New York, made on these principles, has about the suppleness of a very thick piece of felt.

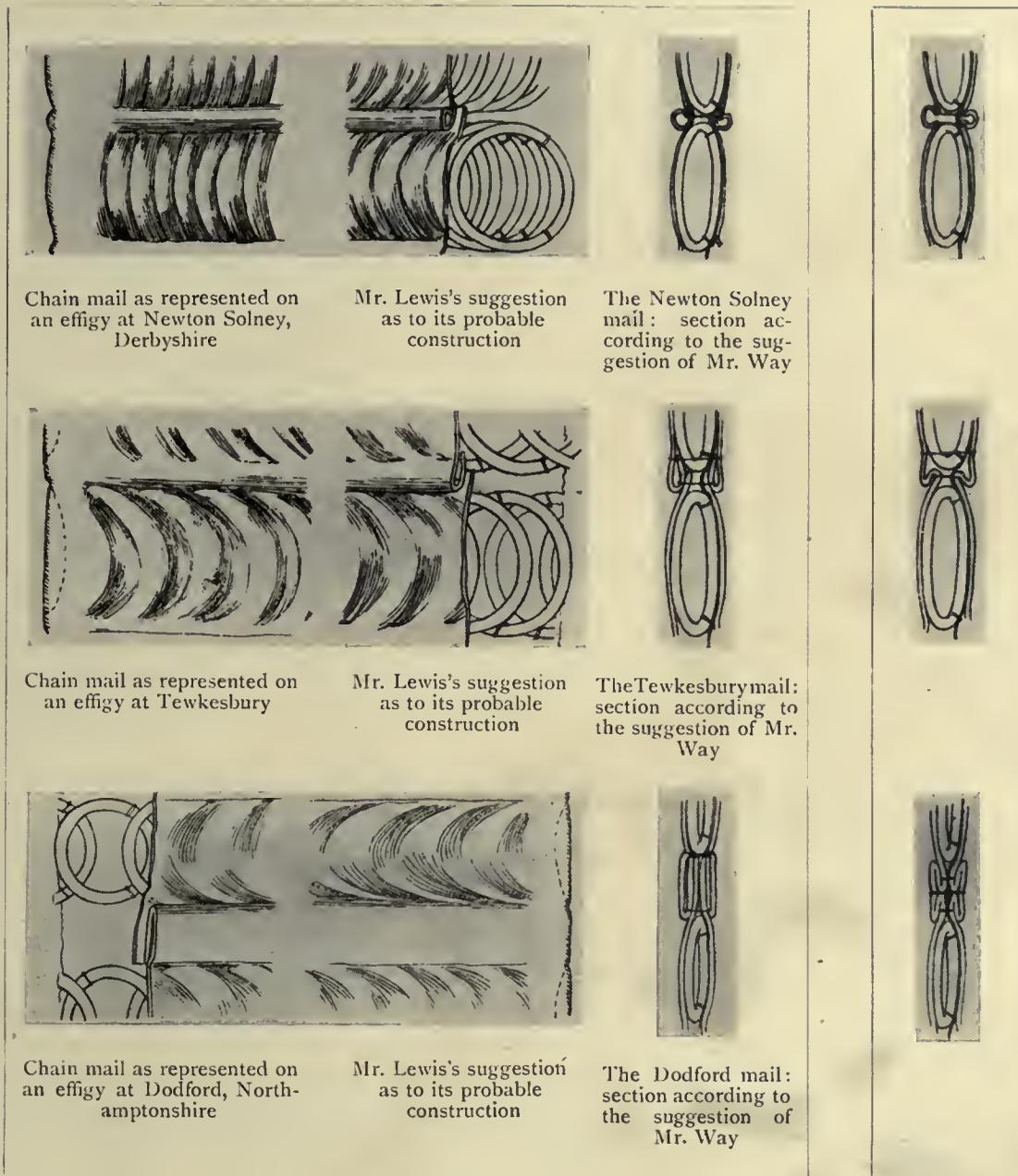
The fact that mail is so hard to depict caused the early artists to treat it in many different ways, and thereby to furnish the latter-day students with a topic fruitful in points. For even in modern times when we look at a pen-and-ink drawing, say by the late Sir John Tenniel or Linley Sambourne, we see chain mail as conventionally represented as it was in any early illumination.

After Sir Samuel Meyrick's time, possibly no one has given such close study to chain mail and its representation as the late Mr. J. G. Waller, who, agreeing with the late Mr. Albert Way, eventually came to the conclusion that all the variations were in the end but different formal manners of representing the ordinary interlinked mail.

Since we have no chain mail that can with certainty be assigned to the XIIth or even XIIIth century we must be satisfied to consider it as almost identical with the same material of a later date that has been handed down to us. Certainly entire suits of chain mail, purporting to be of the XIIth and XIIIth centuries, exist in the Zouche collection at Parham; but, to quote the late Mr. W. Burgess's opinion, "their origin is more than doubtful, indeed, it must be confessed that the appearance of the surface of the rings points to the action of fire rather than the oxidization truly produced by time."

Before quitting the subject of the pictorial representation of chain mail, an ingenious suggestion put forward by Mr. W. G. B. Lewis, the illustrator of the now famous brochure on "Helmets and Mail," by the Baron de Cosson and the late Mr. W. Burgess, published by the Royal Archaeological Institute in 1881, is worthy of consideration.

His theory is that "banded" mail was made by first sewing rows of overlapping rings on to linen (some examples having the rings closer than



Chain mail as represented on an effigy at Newton Solney, Derbyshire

Mr. Lewis's suggestion as to its probable construction

The Newton Solney mail: section according to the suggestion of Mr. Way

Chain mail as represented on an effigy at Tewkesbury

Mr. Lewis's suggestion as to its probable construction

The Tewkesbury mail: section according to the suggestion of Mr. Way

Chain mail as represented on an effigy at Dodford, Northamptonshire

Mr. Lewis's suggestion as to its probable construction

The Dodford mail: section according to the suggestion of Mr. Way

FIG. 88

From "Ancient Helmets and Mail," by the Baron de Cosson and the late Mr. W. Burgess, published by the Royal Archaeological Institute of Great Britain and Ireland

FIG. 89

Sections of the same mail but covered by leather, not cut into strips. This was the late Mr. W. Burgess's improved version of Mr. Lewis's suggestion

others). This foundation was then covered on both sides by sewing strips of leather over the rows of rings with the seams between the rows. To

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increase the strength of the defence between the rows, the lower edge of each strip, being made broader than the upper, was doubled back before being sewn down over the upper edge of the strip next below. By this means six thicknesses of leather were obtained as a defence between the rows of rings. The illustration (Fig. 88) shows Mr. Lewis's theory with three types of conventional chain mail rendering.

When the surfaces had become pressed and discoloured by usage so that the impressions of the rings stood out, a perfect resemblance to the usual portrayal of chain mail in the XIIth and XIIIth centuries would be produced. The late Mr. W. Burgess only made this objection to the theory of Mr. Lewis, that an unnecessary amount of sewing seems involved in attaching together the various strips, a method of construction, too, which was not calculated to allow of much wear and tear during a campaign. To him, therefore, it hardly appeared necessary to make the garment in strips, inasmuch as it was perfectly possible to make the exterior and interior coverings of two continuous pieces of leather, gathering them up, with or without cords, at the intervals between the rows, as suggested in sectional drawing (Fig. 89).

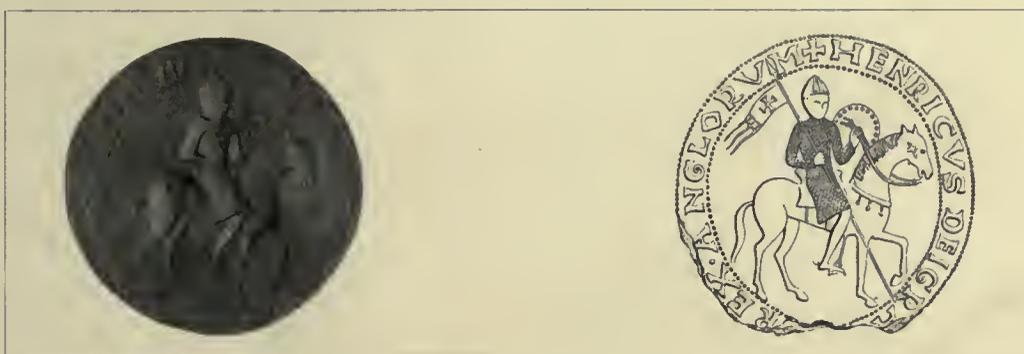
\* \* \*

The last quarter of the XIIth century shows us certain advances in the form of the conical head-piece. In the illustration already referred to (page 70, Fig. 87) the hindermost soldier wears a low conical helmet from which depends a broad nasal-guard which is surrounded by a line of ornamentation. The next soldier displays only the mail coif. The third soldier bears a basin-like head-piece, to which is attached no nasal-guard, but a deep enriched border and a curious little beaded ornament at the top; whilst the fourth and foremost soldier is furnished with an almost cylindrical helmet provided with a very wide nasal-guard, and having its crown-piece enriched with what might be a band of jewellery.

Throughout the XIIth century the nasal-guard was certainly the feature of the helmet; although curiously enough it fails to appear on the seal of Henry I or on the first seal of Stephen. The seal of Henry I (Fig. 90, *a, b*) shows a well-modelled conical head-piece. The seal of Stephen (Fig. 91, *a, b*) shows a head-piece that very closely resembles that worn by the soldiers in the illumination (page 67, Fig. 83). In both the Stephen seal and the illumination it will be seen that the apex of the helmet is not immediately in the centre of the skull-piece, but in a more forward position, as in the style of the Phrygian cap. This position of the apex we find reversed in the bascinet helmet of the end of the XIVth century, for there it appears towards

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the back of the helmet. Stephen's head-piece, on the second of his great seals, is inexplicable. At the end of the XIIth century the helmet was usually forged from one piece, and not as was mostly the case in earlier times made in



(a)

FIG. 90

(b)

(a) THE GREAT SEAL OF HENRY I

(b) THE GREAT SEAL OF HENRY I

Construed by John Hewitt, from "Ancient Armour and Weapons in Europe"

sections joined together. Its medium may still have been sometimes copper; for an interesting helmet of large proportions found in 1835 near Saintfield, county Down, Ireland, and now preserved in the Belfast Museum, though



(a)

FIG. 91

(b)

(a) THE FIRST GREAT SEAL OF STEPHEN

(b) THE FIRST GREAT SEAL OF STEPHEN

Construed by John Hewitt, from "Ancient Armour and Weapons in Europe"

made of iron, has ornaments and bindings beautifully fashioned of copper. The author has never had the opportunity of examining this helmet, but its date has been ascribed on good authority to the latter part of the XIIth century, though as we are fully aware it is extremely difficult to assign even an approximate date to mediaeval antiquities of Irish origin (Fig. 92). Iron,

## EUROPEAN ARMOUR AND ARMS

however, was now the favourite medium. In the "Betrayal" illustration (page 67, Fig. 83) the substance of the helmets is not suggested by the usual primitive blue tint for iron or red for copper; they are painted in segments of green, orange, and white, and the binding material round the lower edge, silver. This clearly demonstrates that the helmet was either covered with some coloured material, or that the surface itself was painted, a custom similar to that in vogue in the XIVth century. Further evidence of the helmet colouring in the XIIth century can be seen in the Huntingfield Psalter illustration (page 68, Fig. 84). Here, among the other armaments which the five Israelites are picking up, is a conical helmet with nasal-guard painted yellow. As the remainder of the illustration is rendered in natural colouring the evidence is strongly in favour of the helmet being decorated with paint. One more instance is found in the helmet of Geoffrey Plantagenet, Count of Anjou, who died in 1149, shown on the enamelled plate now in the Museum of Mans, but originally in the church of St. Julian of that town, where he was buried (Fig. 93). His helmet, which is decorated with a lion of gold on either side, on a blue ground, may be a little later in fashion, as it is recorded that the enamelled plate was not executed until twelve years after the death of the Count, but it is certainly decorated with polychromatic colours. We can produce no actual helmet of this time to assist us in confirming our theories.

In the picture from the Huntingfield Psalter just referred to, the item of greatest interest is the blue helmet laying on the sea bed. This helmet, which is very accurately drawn, shows a great advance in construction, for it possesses a visor or *mezaille*.

The skull-piece is almost hemispherical, and what in other helmets is a nasal-guard here broadens out at the end to form a fairly substantial visor, extending to the lower part of the chin. This feature is certainly remarkable, as being the earliest (close of the XIIth century) suggestion of a visor, to be found in an English manuscript. The *mezaille* does not generally become a feature of the helmet until well into the first quarter of the XIIIth century. An additional point of interest is the appearance of a curtain of chain mail attached to the helmet in place of the coif worn under the helmet.

\* \* \*

The Norman shield of this period is still kite-shaped although it varies very much in size. It appears now more abruptly curved, to form a better protection. No happier illustration can be given of this large type of shield than that borne by the Count of Anjou in the enamelled plate (Fig. 93), in which it is carefully rendered and heraldically coloured. Here we

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see the shield splendidly emblazoned with arms correctly coloured, thus affording us evidence that it was between the years 1080, the date to which



FIG. 92. HELMET FOUND IN 1835 NEAR SAINTFIELD, COUNTY DOWN, IRELAND  
Probably of the latter part of the XIIth century. Now in the Belfast Museum



FIG. 94. SLEEPING SOLDIERS IN THE PICTURE OF THE RESURRECTION  
Showing the medium-sized shields. (Nero MSS., C. IV, f. 23). British Museum



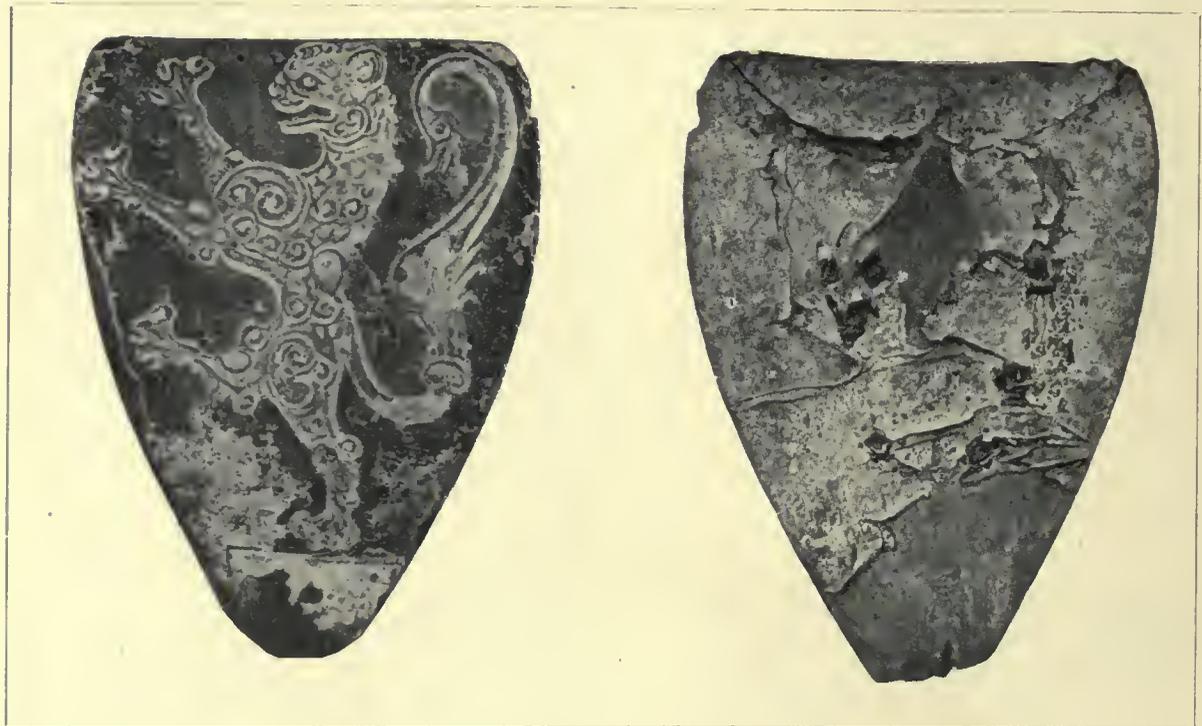
FIG. 93. GEOFFREY PLANTAGENET, COUNT OF ANJOU  
From an enameled tablet of the third quarter of the XIIth century, now in the museum of Mans

we assign the Bayeux needlework, and about 1170, the period of the production of the Anjou enamel, that a true heraldic significance was attached to decoration of the shield. In the centre of the Anjou shield is the umbo of

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gilded metal, set with some semi-translucent cabouchon stone. This shield is, to the scale of the man, fully five feet high and two and a half feet wide, curved almost to exaggeration. We may assume that its mode of attachment was by the enarmes and the guige, as we have reconstructed the interior of such a shield, though of rather earlier date (page 60, Fig. 76).

Of the medium-sized shield we have evidence in Nero MSS., C. IV, f. 23, Brit. Mus., where we see the sleeping soldiers in a picture of the



*a* (outside)

*b* (inside)

FIG. 95. SHIELD OF THE BRIENS FAMILY, EARLY XIII<sup>TH</sup> CENTURY

Formerly preserved in the church of St. Lazarus in the village of Seedorf, Lake of Lucerne

Resurrection armed with shields which are curved, kite-shaped, and, according to their scale with the figures, about three and a half feet high. Their surface is painted with designs of undoubted heraldic significance (Fig. 94).

The small kite-shaped shield is admirably shown in our illustration (page 70, Fig. 87), where small almost triangular shields, curved and supported by the guige, are carefully drawn.

Although pictorial evidence goes a long way, and we have up till now had to rely mainly upon it, it is only by the examination of actual weapons offensive and defensive that we can ascertain for certain their mode of con-

struction. Fortunately to assist us in our notes dealing with the Norman shield there is in existence a shield somewhat of the type we have been describing—although it belongs properly to the first decade of the XIIIth century. This may be studied with advantage (Fig. 95, *a*, *b*). The blazonry of this shield, which is in Seedorf, a small village on the south-eastern shores of the Lake of Lucerne, shows that it belonged to the Briens, a knightly family who resided in this locality. Originally a battle shield, it was hung up after the death of its owner in the church of the Knights of the Order



FIG. 96. HEATER-SHAPED SHIELD IN THE CHURCH OF ST. ELIZABETH AT MARBURG (HESSE), MIDDLE OF XIIIth CENTURY

From Hefner-Alteneck's "*Waffen, etc.*"



FIG. 97. HEATER-SHAPED SHIELD IN THE CHURCH OF ST. ELIZABETH AT MARBURG (HESSE), END OF XIIIth CENTURY

From Hefner-Alteneck's "*Waffen, etc.*"

of St. Lazarus at Seedorf, which was built by a member of the family. Both the church and the cloister of Seedorf were originally set apart for the use of the Augustinian Friars, but were subsequently handed over to the monks of the Benedictine Order. These latter, setting little store by the venerable military achievement, and considering it an unsuitable ornament for their church, put it aside, so that in time it was forgotten. Only a few years ago it was discovered in an unused cupboard within the church. It is now in the collection of the Rev. Anton Denier, vicar of Attinghausen. The Rev. Anton Denier attributes the shield, and probably correctly, to the founder of the Monastery of the Knights of St. Lazarus at Seedorf, one

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Arnold of Briens. The monastery was founded at the end of the XIIth century, probably in 1197; and inasmuch as Arnold died about the year 1225, the date of the shield should be put somewhat anterior to that year—in all probability within the first ten years of the XIIIth century. It is composed of lime wood covered with parchment, and was originally distempered blue, with the addition of a rampant lion in silver, the details of the animal being of *gesso duro* modelled in slight relief. The whole is now in a dilapidated condition, but it still gives a fair idea of the general character of the

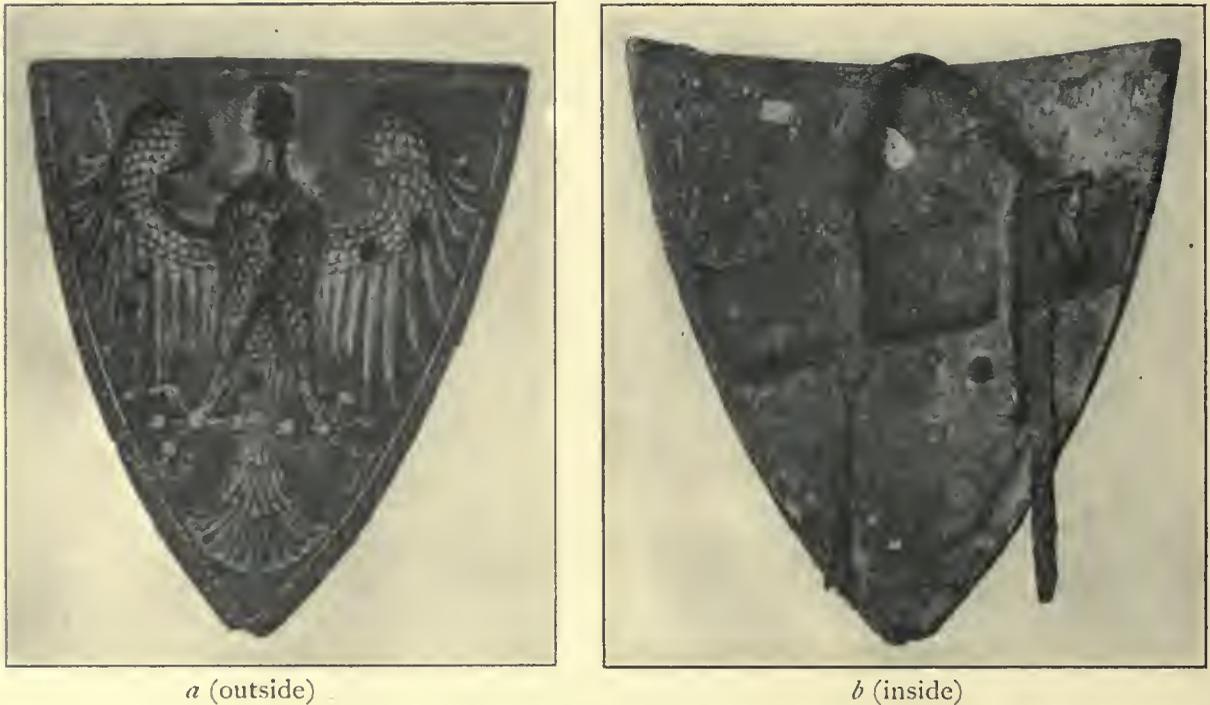


FIG. 98. SHIELD KNOWN AS THE SITTEN SHIELD, REPUTED TO HAVE BELONGED TO A NOBLE, BY NAME VON RARON, ABOUT 1300

From the County Archaeological Museum, Valeria

XIIth century shield. It, however, possesses no boss, which was a distinct feature of the early Norman shield; it is also rather short and flat.

Six other shields of this type and of about this period are known to the present writer, two in Hesse, an example in the County Archaeological Museum, Valeria, about 1300, a shield in the Tyrolean *Landesmuseum*, Innsbruck, about 1320, and two in the Royal Armoury, Madrid (D 59 and D 60).

The Hessian shields are both in the church of St. Elizabeth at Marburg. Our knowledge of their existence is owing to their illustration and description in Herr Hefner-Alteneck's famous *Waffen, ein Beitrag zur Historischen*

*Waffenkunde.* The shields in question are heater-shaped, our illustration (Fig. 96) probably representing the older of the two, as it may date from the middle of the XIIIth century. It is of wood, on the face of which is applied in tooled leather a crowned rampant lion, painted in red and silver, representing the arms of Konrad von Thuringen and Hesse (1220-1241), a grand master of the Teutonic order of the Knights of Prussia. The interior is gilded and painted with the figure of a knight in the armour of the period and a lady. The shield (Fig. 97), though bearing the same arms, is somewhat more elaborate in the treatment of its heraldic subject: the medium of the field of the shield being pierced shows a coloured pigment beneath. Herr Hefner-Alteneck dates this example as belonging to the end of the XIIIth century.

The shield in the County Archaeological Museum, Valeria, is also heater-shaped, and, like those we have described, is built up of wood, leather, and canvas (Fig. 98, *a, b*). It still retains the enarmes in the interior side. The shield is known as the Sitten shield, and is reputed to have belonged to a noble, by name Von Raron, about 1300. Another shield in the Tyrolean *Landesmuseum* of Innsbruck has a rounded top and base (Fig. 99). The front is painted with the arms of Carl Beffart von Trier (Trèves), another grand master of the Teutonic order of the Knights of Prussia between 1310 and 1319. The shield was obtained from Castle Reifenstein in the Tyrol.

Of the shields in the Royal Armoury of Madrid, both are associated with the Monastery of San Salvador de Oña (Burgos). We have unfortunately been unable to obtain an illustration of either of them.

The older of these two shields (D 59) is made of wood resembling cedar. It is covered on both sides with parchment, thicker on the outer



FIG. 99. WOODEN SHIELD PAINTED WITH THE ARMS OF CARL BEFFART VON TRIER, GRAND MASTER OF THE TEUTONIC ORDER OF THE KNIGHTS OF PRUSSIA, BETWEEN 1310 AND 1319

Tyrolean *Landesmuseum*, Ferdinandeum, Innsbruck

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side than on the inner; there are no metal mounts to it. The inside appears to have been painted black, with a wide band of red crossing it diagonally. It still retains the enarmes, made of strong dressed buckskin and lined with purple velvet. Portions of the neck strap (guige) are likewise in existence. So strong is all the material of which it is composed, that there can be no doubt it was used in warfare.

The exterior still shows a red field upon which numerous stripes, some of them gilded and incised, run from the centre to the outside edge.



FIG. 100. SWORD, EARLY XIII<sup>TH</sup> CENTURY

J 4, Musée d'Artillerie, Paris



FIG. 101. SWORD, EARLY XIII<sup>TH</sup> CENTURY, FOUND NEAR COLOGNE

No. 2, Wallace Coll.

The second shield (D 60) was presented to the Royal Armoury by the Marquis of Coquilla in 1887. It is apparently fashioned of similar wood. Inside and out it is covered with parchment, and over this, on the outer side, are painted hoods or helmets; but of these one only has survived to show what they were originally. Although much perished, the remains of red paint in the interior are discernible, also a portion of the white buckskin straps that were originally the enarmes. Don Leocadio Cantón Salazar asserts—founding his statement on the examination of an old manuscript

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in the monastery of San Salvador de Oña—that the heraldic design represented by the four hoods or helmets, with borders of gold fleur-de-lis, belongs to the Count of Bureba, Don Rodrigo Gomez; the epitaph on whose grave reads: “His name was as famous in Spain as was that of Themistocles at Athens.”

\* \* \*

The knightly sword of the transitional XIIth-XIIIth century type, with its large pommel, either of what we term the Brazil nut form or of the wheel

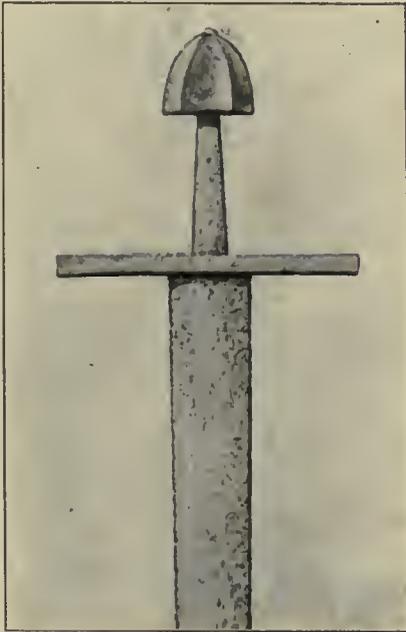


FIG. 102. SWORD, PROBABLY EARLY XIII<sup>TH</sup> CENTURY

Collection: Count von Erbach zu Erbach.  
From Hefner-Alteneck's  
“*Waffen, etc.*”



FIG. 103. FROM AN ILLUMINATION ASSIGNED BY THE LATE HERR HEFNER-ALTENECK TO THE END OF THE XII<sup>TH</sup> CENTURY, BUT WHICH, IN THE OPINION OF THE PRESENT WRITER, DATES FROM THE EARLY YEARS OF THE XIII<sup>TH</sup> CENTURY

From Hefner-Alteneck's “*Waffen, etc.*”

form, its heavy straight quillons, its broad blade, as yet but lightly tapered, should be quite familiar, for it appears in nearly every contemporary illumination. If we look at the later illustrations of which we have made use up to this point to assist us in the description of other armaments, we find that in most instances the wheel-pommeled sword is there, varying only in the thickness of its quillons or the length of its grip. Of this type we are able to give an illustration (Fig. 100) from an authentic specimen in the Musée d'Artillerie of Paris. The pommel is of flat wheel form, and the

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blade abnormally wide; but the quillons are of light build and drop slightly towards the blade at their ends. The grip is a restoration. Many swords of this general type have been found in the Thames and other watercourses in England; but no other can be placed so conclusively in the early years of the XIIIth century as that in the Musée d'Artillerie. The Wallace Collection shows us a sword (Fig. 101) which it is almost safe to assign to the first quarter of the XIIIth century. In this instance the pommel is not of the wheel form but of the Brazil nut shape, while the quillons are straight, heavy, and of quadrilateral section. The late Herr Hefner-Alteneck, in his famous work *Waffen, etc.* (on Plate 8), shows us a sword (Fig. 102)—then in the collection of Count von Erbach zu Erbach Odenwald—where we see a different formation of pommel, that of the faceted beehive form, but with



FIG. 104. SWORD, FIRST HALF OF XIII<sup>TH</sup> CENTURY

Collection: Felix Joubert, Esq.



FIG. 105. SWORD, FIRST HALF OF XIII<sup>TH</sup> CENTURY

Collection: Godfrey Williams, Esq.



FIG. 106. SWORD, XIII<sup>TH</sup> CENTURY

Maidstone Museum

a straight and perfectly rectangular quillon guard. His authority for placing this sword at so early a date being its almost exact portrayal in an illumination (Fig. 103) which he considered dated from the end of the XIIth century, but which we feel, noting the development of the gauntlet sleeves on the hauberk worn by the knight, belongs more likely to the first half of the XIIIth century. Three other swords we propose to illustrate showing variations of the Brazil nut shaped pommel. The first is a weapon of unusual length of blade, forty-four inches (Fig. 104), in the collection of Mr. Felix Joubert. In this sword the pommel is very massive, though the Brazil nut form we can hardly consider strongly accentuated. The second (Fig. 105) is a fine weapon with a considerably smaller pommel, but with longer and narrower quillons, now in the collection of Mr. Godfrey Williams at St. Donats Castle, Wales. On the blade of this sword are religious phrases

in Latin; the third sword (Fig. 106) now in the Maidstone Museum, was found outside the town, and shows the same general construction, but the pommel is of larger proportions and of the advanced Brazil nut form. The general similarity of all these hilts is interesting, since it establishes a certain international conformity as regards shape and fashion, for the latter is an English find, whilst the others were excavated on the Continent.

A contemporary illustration of swords with both the wheel and Brazil nut types of pommel in use at the same time may be seen in an illumination taken from a Jewish Prayer Book in the University Library of Leipzig. It represents Pharaoh with two warriors persecuting the Jews (Fig. 107).

Having alluded to the type of the ordinary sword of the first half of



FIG. 107. SWORDS OF THE XIII<sup>TH</sup> CENTURY

Showing the pommels of the wheel and Brazil nut types. Illumination from a Jewish Prayer Book, University Library, Leipzig

the XIII<sup>th</sup> century, we now have arrived at that era to which it would be safe to assign the production of certain famous swords of sumptuous craftsmanship and of historical importance. For instance, such weapons as are to be seen in the Royal Armoury of Turin, in the Louvre of Paris, in the Imperial Treasury of Vienna, in the Royal Armoury of Madrid, and in the Hermitage, Petrograd.

We will deal first with the sword that justly claims the greatest seniority—the sword known as that of St. Maurice in the Royal Armoury of Turin (Fig. 108). The St. Maurice sword is of Italian workmanship and dates from within the first quarter of the XIII<sup>th</sup> century. It was originally in the Treasury of the Abbey of St. Maurice in the Valois (Switzerland), an abbey said to have been founded at the end of the IV<sup>th</sup>

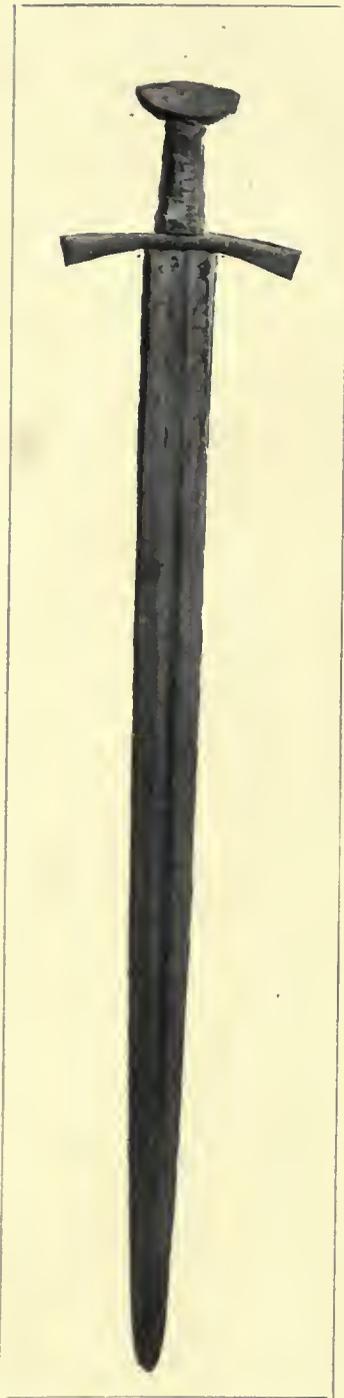


FIG. 7 THE "SWORD OF  
ST. MAURICE"  
Early XIIIth century, unsheathed,  
showing its superb blade. Royal  
Armoury, Turin



FIG. 8 CASE OF LEATHER DECORATED  
WITH *GESSO DURO*  
Made in the early part of the XVth century  
to contain the St. Maurice sword.  
Royal Armoury, Turin

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century by St. Theodore. The Treasury of this abbey is still one of the richest in treasures of very early date.

In 1591 Carlo Emanuele I of Savoy transferred this sword, together with half the bones of St. Maurice, to whom the sword was by tradition attributed (St. Maurice died in A.D. 302!), to the Royal Chapel at Turin. In 1858 the sword was placed in the Royal Armoury of Turin, where it is now shown with its fine *gesso duro* case made to contain it early in the XVth century

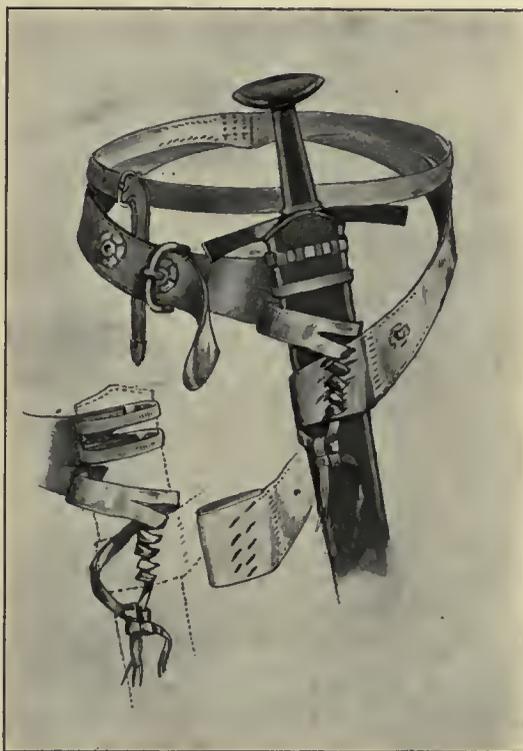


FIG. 9 SUGGESTED METHOD OF ATTACHING THE  
SWORD SCABBARD TO THE BELT

A reconstruction applicable to the St. Maurice sword by  
the present author after Viollet-le-Duc

(Fig. 109). This form of travelling case was a very necessary precaution for the preservation of this supposed relic, as, according to tradition, this sword was constantly being handled, not for purposes of destruction, but from the faith of the time in the power of its touch to aid the barren woman to attain her world's desire. (It was originally a war sword. The quillons and pommel are of iron, the latter of Brazil nut form; whilst the quillons, which are oblong and rectangular in section, grow wider towards their ends and droop slightly. The blade,  $1\frac{1}{4}$  inch wide at the hilt, is of superlatively fine make.

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It has running down the centre on either face a shallow, well-marked groove, from the hilt to the extreme point. The grip of wood is covered with parchment, of which material the scabbard is likewise covered. This is intact. The whole sword, which is of quite simple shape, is in perfect preservation, and especially instructive, as much of the intricate belt attachments, which are still in their original state, is fastened to the scabbard.) These fastenings form the subject of a very able dissertation contributed by M. Viollet-le-Duc to his *Dictionnaire du Mobilier Français*. We show this reconstruction adapted to the St. Maurice sword (Fig. 110).



FIG. 110 SCABBARD WITH PART OF ITS BELT

Early XIIIth century. In the Treasury of the Cathedral of Bamberg, Bavaria  
From Hefner-Alteneck's "*Waffen, etc.*"

Perhaps the scabbard, with its hangers, of the St. Maurice sword of Turin is the only complete example of such sword furniture of the early years of the XIIIth century that has been handed down to us. Herr Hefner-Alteneck alludes to part of a scabbard and belt that was, in 1842, found among some old parchments in the Treasury of the Cathedral of Bamberg (Bavaria). This scabbard is fashioned of wood (the end is broken and missing) covered with white parchment, upon which is a very simple design reserved in the natural colour of the hide on a dark brown ground. At the top is a semicircular piece of leather platted with green and red silk. The leather straps of the



*Photograph A. Girardon)*

FIG. 112. HILT OF THE SWORD KNOWN AS THAT OF "CHARLEMAGNE," WORN BY THE KINGS OF FRANCE AT THEIR CORONATIONS

It is in reality a weapon of the early years of the XIIIth century  
Galerie d'Apollon, Louvre

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belt are in this case white. When discovered it was twisted out of recognition and sewn up in a ball of leather (Fig. 111).

Of the two swords supposed to have belonged to Charlemagne, probably that in the Louvre has prior claim to our attention, inasmuch as it has figured in many of the portraits which have been painted of the kings of France attired in their coronation robes, and has been used, so we are informed, at the crowning of these Princes since the time of Philip the Bold (1270-1285). It is also more "European" than the so-called Charlemagne sword in the Imperial Treasury of Vienna. The Louvre sword of this Emperor (so called) is now to be seen in the Galerie d'Apollon (Fig. 112).

The monks of St. Denis believed themselves to possess the royal insignia of Charlemagne. As the ceremony of the coronation of the kings of France took place at Reims, the custody of the Royal insignia belonged to the abbey of St. Denis and was a privilege jealously prized. Among the regalia was supposed to be the sword in question and the spurs referred to on page 106. The provenance of these general ensigns of royalty does not here matter, as it is only the sword that now concerns us. That erudite scholar, Sir Martin Conway, writing in "Archaeologia" (February 4, 1915) on "The Abbey of Saint-Denis and its Ancient Treasures," puts forth his theory that certain parts of the sword might be of the age reputed, though it has been subjected in the process of time to many restorations and repairs. It appears that from the shape of the pommel Sir Martin forms this conclusion, as he goes on to say "the pommel finds no corresponding neighbours so far as I can discover amongst objects of the twelfth century," but, with all due deference, the present writer ventures to suggest that, in a simpler form, the pommel seen upon the hilt of the "St. Maurice" sword of the Vienna Treasury (see page 97, fig. 119) is the counterpart of that on the Louvre sword, and that the length of quillon is precisely the same, which certainly goes to prove that the hilts of these two swords are of corresponding date, namely, the first quarter of the XIIIth century, at which period we have satisfactorily established the manufacture of the Vienna example. Sir Martin is certainly reinforced in his view as to the age of the hilt of the Louvre sword by the opinion of Monsieur Dieulafoy expressed in his *L'Art antique de la Perse* (vol. v, p. 164). Monsieur Dieulafoy calls attention to the ornamentation on the pommel on which are a pair of attached wings and the ornament rising above them, and points out how they reproduce in their form, their disposition, their style, and their most minute details the emblematic wings

that surmount the tiara of the latest Sassanian kings. The central ornament is a mixed solar and lunar emblem.

In Monsieur Dieulafoy's own words: *La broderie, les entrelacs formés par les oiseaux, la forme, et surtout la disposition si particulière des ailes, et l'aspect de la garde elle-même, accusent une filiation perse sassanide incontestable.* Assisting us in our belief of the true age of the hilt, may we say that M. Dieulafoy does not think the actual workmanship oriental or of such antiquity, but holds that it was done in the west by some western craftsman *imitating* a Sassanian original of about A.D. 640.

Let us therefore dissect the sword and see how it is possible to fit the school of design detected by these two eminent scholars to the actual period of the weapon.

First, there is the blade, which has been claimed as early mediaeval;



FIG. 113. SWORD POMMEL OF BRONZE  
Late XIIIth century

Cast much in the same manner as that of the so-called Charlemagne sword in the Louvre  
British Museum

with that we are entirely in accord, for, ground down and over-cleaned as it now appears, it belongs, in our opinion, to the period of the gold hilt. Next the pommel and quillons. These, as we have said, we estimate as having been made within the first half of the XIIIth century, based solely on their individual shapes and proportions. We most certainly bow to the opinions of Sir Martin Conway and M. Dieulafoy as to their very much earlier school of enrichment, but we strongly maintain our opinion that no hilt of the actual proportions and type of the Louvre sword was made prior to the year 1200 or 1150 at the very earliest. The gold pommel is flat and what we continue to term Brazil nut shaped. It is hollow and made in two halves, much after the manner of a bronze wheel pommel in the British Museum (Fig. 113). The gold quillons are character-

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istically long in proportion to the length of the grip, and each shaped to the elongated body of a winged monster. Beneath the quillons, in small capital letters of XIIIth century date, the weight of the gold of the hilt, *Deux marcs et demi et dix esterlius*, is punched on, no doubt at the time the hilt was made, in order to record once and for all the value of the gold originally used. We may assert the grip to be practically new, for it was re-made for the coronation of Napoleon I when the sword was borne by the Marshal Lefèvre. When we consider the age of the scabbard we hesitate to pass an opinion, as its blue velvet covering with fleur-de-lis was added in 1824 for the coronation of Charles X. There is, however, always the chance that the reset gems may have belonged to the original. It is, therefore, our opinion that, though the ornamentation of the two parts of its hilt may be founded upon a VIIth or VIIIth century model, such ornamentation was adapted to a hilt in the proportions of the fashion of when it was made, namely, early in the XIIIth century, the explanation being that it replaced the original "Joyeuse" of Charlemagne, which may have become much perished through its service in many ceremonials, or even destroyed, with the result that the recollections of the original decorations were applied to the then newly made hilt. Where it was made is another matter for speculation, but like many arms of this early date, agreeing with Sir Martin Conway and M. Dieulafoy, we note a strong suggestion of the Orient in its method of enrichment, though, according to that eminent antiquary, M. Courajod, a Scandinavian influence might possibly be discerned in its applied ornamentation.

There exists in the Gagnière Collection a drawing of the whole sword in what is claimed to be its original condition, but taking that for what it is worth, it certainly shows the sword and scabbard prior to its drastic early XIXth century restoration.

In the earliest existing inventory of the treasury of St. Denis, a manuscript preserved in the Bibliothèque Nationale of Paris, dated 22 janvier 1504 (1505 N.S.), the Louvre sword is noted under No. III, the "Joyeuse" of Charlemagne. In this same inventory, three other swords are mentioned, none of which exist at the present day, under Nos. 112, 113, and 114: (i) The sword carried by St. Louis on his first crusade (Louis IX, 1226-1270); (ii) a sword which belonged to Charles VII; and (iii) a sword to which the name of Archbishop Turpin was attached. Jacques Doublet's *Histoire de . . . S. Denys*, Paris, 1625, alludes to the sword under discussion on pages 347 and 371; also S. G. Millet in *Le Tresor Sacré . . . de Saint-*

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*Denis*, Paris, 1645, on page 126. In M. Michel Félibien's *Histoire de . . . Saint-Denis*, 1706, it is represented engraved on Plate IV of that work. In the inventory of the treasury of St. Denis made in 1739 by Monsieur Omont, who quotes the inventory of 1505, it figures under No. 80. It is here

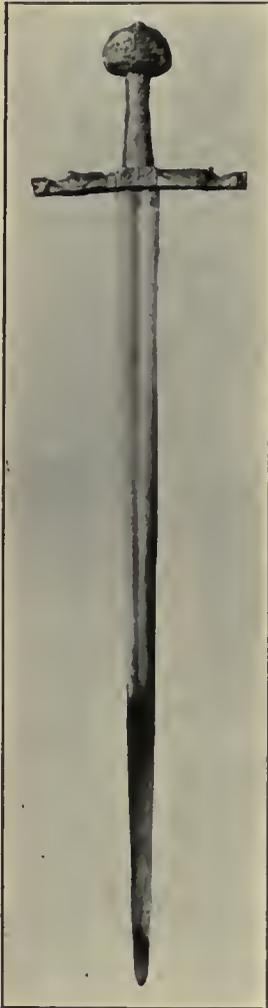


FIG. 114. THE LOUVRE "CHARLEMAGNE" SWORD UNSHEATHED



FIG. 115. THE LOUVRE "CHARLEMAGNE" SWORD WITH ITS SCABBARD AND BELT

interesting to note that Doublet in 1625, Millet in 1645, Félibien in 1706, and Omont in 1739, allude to a sword that is not mentioned in the 1505 inventory, namely, that of Jeanne d'Arc, which sword, alas! we need hardly say is now non-existent.

We give additional illustrations of the Louvre sword unsheathed and

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sheathed (Figs. 114 and 115). The other sword attributed to Charlemagne is that preserved in the Imperial Treasury at Vienna (Fig. 116). It is the tradition the sword was presented to him by the Caliph Hārūn-al-Rashid, the fifth of the Abbasid Caliphs of Bagdad (c. 785-c. 809), but the accuracy of the story lacks substantiality, for although a semi-Oriental made weapon of great age, it is extremely difficult to believe that it can possibly belong to so remote a period as the early years of the IXth century. It has been suggested there is the possibility that the origin of this remarkable sword was synchronous with most of the other objects contained in the coronation regalia of the Holy Roman Empire, and, if so, it was made during the period of the Norman domination in Sicily at the end of the XIIth and commencement of the XIIIth century, that is to say, during the reigns of the Norman kings, Roger II (1133) and William II (1181).

The belief that this curiously shaped weapon was actually of the time of, and worn by, Charlemagne survives to the present day. A XVIth century wood block of the great Emperor Maximilian I dressed in his full coronation robes shows this actual sword girded to his side (Fig. 117).

The sword has that curious bend in the tang that we associate with the curved weapon of the north-east of Europe. The quillons, which, like the cap-shaped pommel and other mounts of the hilt and scabbard, are of silver-gilt, hollow and very short, swelling to knobs at the end. All the enrichments are embossed and chased with an elaborate arabesque design, introducing forms which might be construed to resemble the fleur-de-lis, but which in reality are part of the design of the true arabesque. The grip is covered with fish skin, and is encircled with three jewelled gold rings, which appear later mediaeval additions. The scabbard of wood is covered with dyed ass's skin, while the silver-gilt locket mount is very wide, and must have allowed for the passage of a strap which would attach the weapon at almost a right angle to the body. Both this and the other mounts of the scabbard are embossed and chased in a similar manner to the hilt ornaments.

In endeavouring to establish a date to which we might assign this interesting relic, we are only able to do so by comparing it with any existing swords of a similar character. Of these, four swords of the same family are known to the writer, all found in Hungary, in association with coins of the Xth and XIIth centuries. Most like the Vienna "Charlemagne" sword is that known as the sword of Tarczal (Comitat Zemplén), which evidently belonged to a noble of importance, being found in a grave in the Tokay Mountains where he was buried with his horse. Only fragments of the blade of this weapon

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are left; this is single edged and slightly curved, but the silver mounts of the grip and the short quillons are of precisely the same character as the Vienna Imperial Treasury sword. Next like is the sword of Demkóhegy (Stuhlweissenburg) save that the mounts of the hilt are of yellow metal, and the blade is straight and single edged, otherwise it has all the features of the sword in question. Next is a very fragmentary weapon taken from the tomb of Gomba (Comitat Alsó Fejér); the quillons are well preserved, but only a very small portion of the grip is left, sufficient, however, to show that it was originally placed at an angle to the blade. The fourth sword is that of Nemes Ócsa (Comitat Komorn). This again is so perished that it is difficult to say whether or no the blade was curved, but the bronze mountings to the hilt show that it was set anglewise to the blade, as with the swords under discussion. Added to these, as they certainly belong to the same group of weapons, if not actually the same family, are four other swords in the *Zeughaus*, Berlin, two bought at Tiflis by Dr. Grempler, a sword excavated at Czechovitz, and a sword which M. Yastróboff found in a tomb at Liada (Middle Russia). So much for the actual swords that belong to this same group. From the fact that the four more important have been found in Hungary, and in association with Xth-XIth century coinage, we may reasonably surmise that they one and all emanated from north-eastern Europe, and that they were there the prevailing fashion of weapon of that period. But we hazard the suggestion that the Vienna Charlemagne sword is of later date than any we have referred to, not only on account of the far more intricate ornamentation of its hilt and scabbard mounts, but, and this is important, because its blade, though slightly curved as with most of the other swords of this same group, is double edged, and has that most curious shoulder, if the term may be used, a little less than half-way down its length. This is a feature only seen on Hungarian blades after the XIIth century. There is a possibility that a XIIth century blade was added to an earlier hilt, but even this seems unlikely, for the decoration of the former seems in accord with that of the latter, whilst the whole weapon, hilt, blade, and scabbard appear to have grown together, though it is apparent they have many times been subject to reparations. Therefore, with this evidence before us, we are inclined to think that the Charlemagne sword, though in the fashion of weapons common to north-eastern Europe in the Xth and XIth centuries, must have been produced nearly four centuries after the death of the great monarch to whom it is supposed to have belonged.

The Treasury of Vienna also supplies two other splendidly enriched



FIG. 116. THE SO-CALLED SWORD OF CHARLEMAGNE  
Imperial Treasury, Vienna



FIG. 117. THE EMPEROR MAXIMILIAN I IN HIS FULL CORONATION ROBES  
From a contemporary engraving  
Showing the so-called Sword of Charlemagne girded to his side

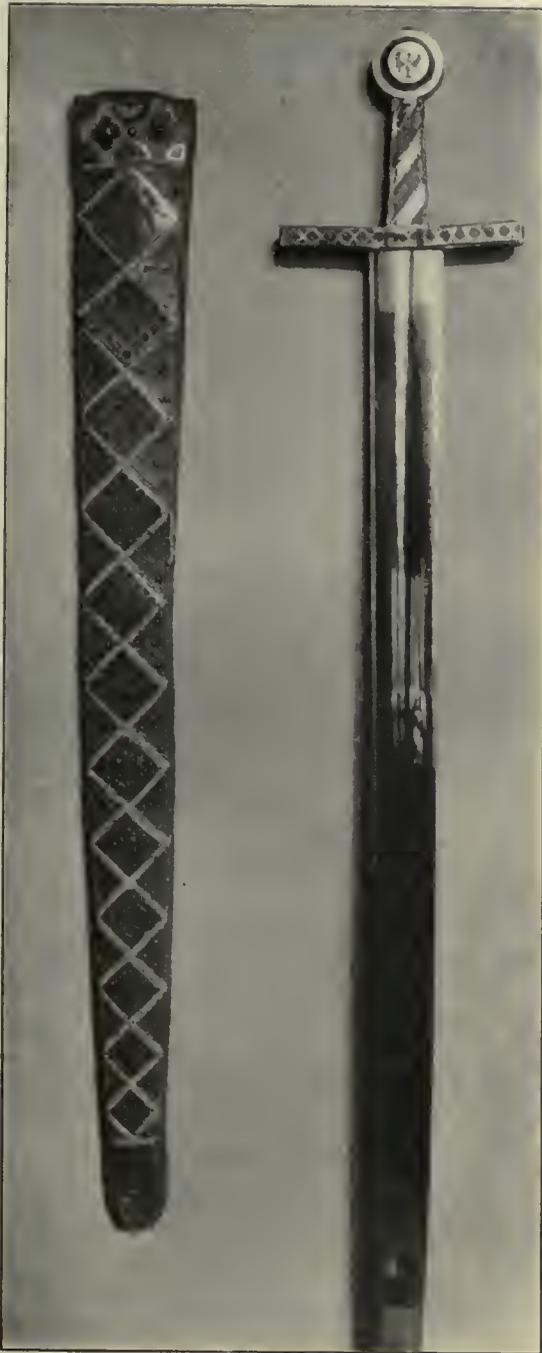


FIG. 12 THE IMPERIAL SWORD OF CEREMONY  
Possibly Sicilian, late XIIth or early XIIIth century. The pommel was added in the XIVth century.  
Imperial Treasury, Vienna

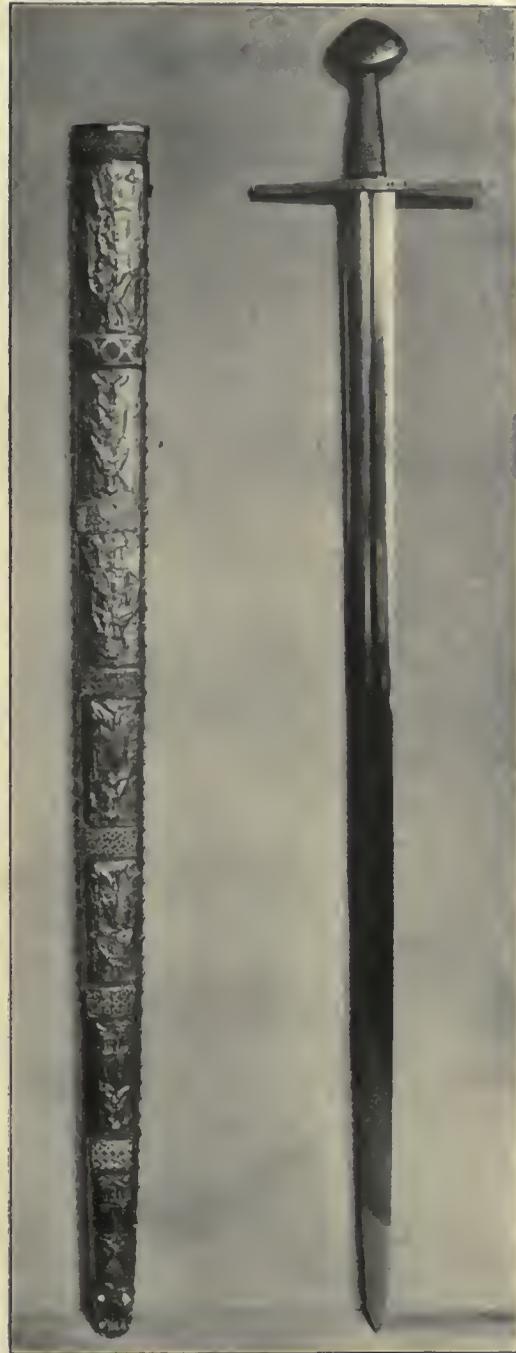


FIG. 13 THE SO-CALLED SWORD OF  
ST. MAURICE  
Early XIIIth century  
Imperial Treasury, Vienna

## EUROPEAN ARMOUR AND ARMS

swords that are deserving of mention, as coming most certainly within the period with which we are now dealing. One is known as the Imperial Sword of Ceremony (Fig. 118), and the other is a sword attributed, like that at Turin, to St. Maurice. There is every reason to believe that this sword, which is always used in the ceremony of the accolade after the coronation, originally came from Sicily. The grip, the quillons, and the square plates of enamelled gold ornamenting the scabbard are wrought in a similar style to those ornaments which adorn the Imperial Coronation mantle and dalmatic. On examination it will be seen that the Romano-Germanic eagles, which appear on the uppermost scabbard mounts, are similar in workmanship and in character to the other enamel enrichments of the sword; which fact is advanced as an indisputable proof that this sword was not included among the heirlooms of the Norman kings, as in the case of the actual coronation robes, but was in all probability made at Palermo for the Emperor



FIG. 120. INSCRIBED SWORD BLADE

Said to be of the XIIIth century  
Imperial Armoury, Vienna

Henry VI (1190-1197). The pommel, which is of wheel form, is not that made originally for the hilt as it is of characteristic mid-XIVth century section, and was made probably in the time of the Emperor Charles IV (1347-1378), as upon it, beside the Romano-Germanic eagle, is the symbolic lion of Bohemia. From the rectangular formation of the quillons we may judge that the original pommel was of the form of that upon the St. Maurice sword which we are about to deal with. The blade has a single groove on either side.

(The other sword in the Vienna Treasury is known as "the Sword of St. Maurice." It was carried before the sovereign on his coronation day, as *signum potentiae et majestatis*.) It was until recently carried in front of the reigning Emperor and King by the Grand Court-Marshal at the opening of the Austrian Reichsrath and of the Hungarian Parliament.

(In every respect a weapon of great splendour it was equally serviceable for practical use as for ceremony, and may be looked upon as a typical knightly weapon of the commencement of the XIIIth century (Fig. 13).)

## GENERAL HISTORY A.D. 1100—1320

The pommel is of the Brazil nut form, but much developed; the quillons, which like the pommel are fashioned in silver-gilt, are rectangular in section and of considerable length.

The pommel is engraved on either side with a shield of arms, one charged with the Romano-Germanic eagle, the other with a demi-eagle and three leopards, arms adopted by the Emperor Otto IV (1198-1215). The latter English device was doubtless in compliment to King John of England, with whom he was in alliance against Philip II (Augustus) of France. The lower edge of the pommel bears the inscription: BENEDICTVS DOS [Dominus] DES [Deus] MEVS QVI DOCET MANVS; whilst on the quillons runs the inscription: CHRISTVS VINCIT CHRISTVS REIGNAT CHRIST. INPERAT [imperat]. The scabbard is of wood with seven plaques of gold on either side, embossed and chased with figures of crowned kings. Between these are small plaques set with translucent enamel and cabouchon stones. The blade is grooved



FIG. 121. THE "LOBERA" BLADE OF SAINT FERDINAND (1199-1252) *16th. Cent. Coll.*  
G 21, Royal Armoury, Madrid

and of XIIIth century type, much resembling an example in the Imperial Armoury of Vienna (Fig. 120) formerly ascribed as belonging to the close of the XIIth century by reason of its bearing a mark—a heart, stars, and a cross—such as is seen on a sword blade at Dresden reputed to have been the property of a Swabian knight, Schenk von Winterstetten, who died in 1213. We cannot help feeling, however, that from the general character of the Vienna Armoury blade it is of later date; apart from the arrangement of letters, T. E. V. P. D. L. S. R. G. F. B. R., together with a primitive helm and a shield inlaid in brass, which might well have been added in the latter part of the XIIIth century.

A blade of the same period, and very much of the same character save that it has a groove running its full length, is in the Armoury of Madrid (Fig. 121); but in this case the very much rubbed lettering found in the groove can be read as follows: SI, SI, NO NON. It sounds a sufficiently puzzling cryptogram, but according to the late Conde de Valencia it is in reality part

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FIG. 15 THE SWORD OF SAINT FERDINAND (1199-1252)

G 22, Royal Armoury, Madrid

of the motto of Ferdinand III (*El Santo*) (1199-1252), which roughly rendered into English would run: "Let your yea be yea, and your nay be nay." From this slender clue the Conde de Valencia endeavoured to prove that this sword blade, which in the old inventories figures as the Cid's renowned *Colada*, is no other than that sword blade of St. Ferdinand which the canonized monarch himself on his death-bed bequeathed to the Infante Manuel: "his Lobera sword, which was of great virtue, and by means of which God had greatly helped him." It has been ground and much cleaned; at the tang end its edge has been filed to a ricasso in order to adapt it to the hilt that was added by the Toledo sword-maker, Salvador de Avila, in the first quarter of the XVIth century.

The allusion to this blade in the Royal Armoury of Madrid reminds us that it is in this armoury the next very important enriched sword of about the period with which we are now dealing is to be seen. (The sword in question is one of the most splendidly enriched weapons of the first half of the XIIIth century that has been handed down to us (Fig. 15). In the past it won reverence and renown as the sword of Roland, the famed Paladin of the VIIIth century, but as is the case of nearly all other famous swords, it has no rightful claim to the great antiquity with which it has been credited. We hardly need say it is not of the VIIIth century, but belongs to the early part of the XIIIth century. Being a weapon of this period, and possessing most distinctive Moorish features, the Conde de Valencia considered it likely to have been one of the swords of St. Ferdinand, and for this reason it was retained in the armoury. It is a long and very broad-bladed sword, having a flattened pommel that

may be described as leaf-shaped in outline.) The quillons taper towards their ends where they terminate in trefoils protected within their downward curve. On either side respectively are shown the arms of Leon and Castile. The quillons are constructed of silver-gilt, whilst the pommel is of iron overlaid with plates of the former; the grip and scabbard are of wood,



FIG. 123. SWORD AND SCABBARD

First half of XIIIth century. In the Hermitage, Petrograd

overlaid with silver-gilt plates, upon which is a true arabesque design in filigree work. This, however, is missing from the pommel and grip. Both the sheath and the hilt of the sword were originally set with cabouchon stones, some of which still remain. In the groove of the blade, which is thin and flexible from centuries of cleaning, are arrangements of tooled

## EUROPEAN ARMOUR AND ARMS

circles and cruciform devices. Viewed as a whole it is a majestically proportioned weapon, and from the artistic standpoint certainly holds its own with the other famous contemporary swords we have mentioned.)

That wonderfully complete sword now in the Hermitage, Petrograd, formerly in the San Donato, and before that in the Basilewski Collection, has a hilt that in form is a combination of both the St. Maurice sword



FIG. 124. SWORD, PROBABLY SCANDINAVIAN  
First half of XIIIth century

Bargello Museum, Florence, *ex* Signor Ressiman Collection

of Turin and the ceremonial sword in the Imperial Treasury of Vienna, having the drooping quillons with the expanding ends of the former, and the wheel pommel of the latter, but which in this case appears to be the original. Monsieur de Labanoff, in whose collection we find the sword first recorded, bought it at Moscow in 1817 for 4,000 roubles from an Armenian engaged in the Turkish wars of 1810-1811, and by whom it was originally discovered in a Turkish fortress, but where it is not recorded. The whole of the hilt is encased with silver-gilt, splendidly engraved and decorated with

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niello work. Religious emblems such as the lion of St. Mark, the ox of St. Lucas, the angel of St. Matthew, and the eagle of St. John are the principal motifs of its ornamentation, whilst legends both in Latin and gothic characters which have been deciphered by that famous paleographer, M. J. Tastu, satisfactorily prove that the sword was originally made for Herman de Salva, Grand Master of the Teutonic order of the Knights of Prussia (1210-1239).

The present writer has never had the opportunity of examining or even seeing the sword, so is unable to report as to what extent it has been restored; but there seems no reason to doubt by the evidence of its shape and decoration, that M. Tastu's statement as to its provenance and date should not be correct. However, despite any restoration to which this sword has been subjected, it still must be one of the most splendid weapons of this early date in existence (Fig. 123).

A very curious though exaggerated likeness to the type of quillons seen on both the last sword described and the St. Maurice, Turin, sword, and a pommel, apparently a development from that of the Brazil nut order, is to be noted on a very interesting sword hilt now in the Bargello Museum of Florence, bequeathed there with the remainder of his collection by the late Signor Ressman. Signor Ressman obtained this hilt from the Castellain collection. In the past considerable controversy arose as to its nationality and date—Spain and Southern Italy have been suggested as the country of its make; but the present writer, after the most careful consideration, has little hesitation in pronouncing it to be a product of Northern Europe and of the first half of the XIIIth century. Its form is so bizarre, and both the method and style of its ornamentation—thick silver plating applied to blacked iron ground—are so reminiscent of those swords of a hundred years earlier that it would almost seem evolutionized from them. The blade now in the hilt is of a somewhat later date, as is the grip (Fig. 124).

We have dwelt with these especially famous swords as being representative of the sumptuous armaments that must have been familiar to the civilized world in the first half of the XIIIth century. Many regalias and treasuries of the nobles must have contained even more splendid weapons; but all have perished, these alone to our knowledge surviving as memorials of past magnificence.

\* \* \*

The hafted weapons of the XIIIth century had made but a slight advance in comparison with those of the preceding era. It has been suggested that the halberd in its first form was now introduced; but we have been unable

## EUROPEAN ARMOUR AND ARMS

to find any contemporary illustration of its use. The lance in practically its primitive form was the staple weapon of the mounted knight, augmented with the mace, which by now had developed into a formidable weapon.

In the illustration (p. 117, Fig. 141) a mace is seen held in both hands, having a head resembling those dentated bronze heads of prehistoric origin that have been found in large numbers in Central Europe. No mace heads, however, of this type have been discovered that can, with any degree of accuracy, be ascribed to the XIIIth century. Axe-heads are found, but their form, as we have noticed, can vary so little that it is little better than guess-work to assign mediaeval specimens to any particular date.

In tracing the evolution of armour and weapons the greatest difficulty we have to contend with is in keeping the changes that continually took place sufficiently clearly before our reader, to enable him to picture to

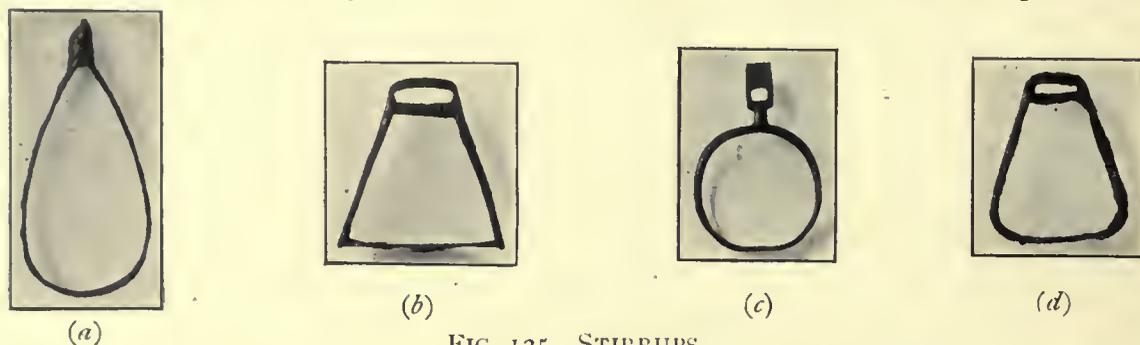


FIG. 125. STIRRUPS

(a) Xth century; (b) Late XIth century; (c) Early XIIth century;  
(d) Early XIIIth century

All found in London. London Museum

himself a knight fully equipped at, or near, any particular date that he may desire. Had the knight changed his harness from head to foot for one of a more advanced type in certain definite years, however often he may have made the change, it would nevertheless have been a comparatively easy task to follow him through every decade and to trace the changes and the necessity of these changes, as each followed upon the last. Unfortunately, without any thought or feeling for the student of armour in future centuries, the knight proceeded in his arbitrary way to alter the fashion of his head protection in one period, of his body armour in another, and of his leg defences and of his offensive weapons in even a third and fourth, allowing the fashions in the case of every piece of armament each to overlap one another in a most perplexing manner. Therefore, it is impossible to do otherwise than to take our subject in general periods most suitable for our purpose, and to trace the changes in each detail of his equipment separately,

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retracing our steps as is obligatory to pick up the story of each. It is also necessary from time to time to leave the general course of the history in order to treat our subject thoroughly by examining in detail any important example of a particular armament, offensive or defensive, that may have been handed down to us or to dilate on some piece of contemporary evidence that does not directly but eventually affects our story.

With the object, therefore, of preventing the chronicle from becoming more involved than is necessary, we have so far omitted further reference to the accoutrements and appurtenances of the knight's charger, since we alluded to it in pre-Norman times on pages 28, 29, and 30. During the period



FIG. 126. VISIGOTHIC BIT  
Early XIIIth century  
No. 102, Royal Armoury, Madrid

which we have dealt with, the horse, as far as we are able to judge, was unarmoured. True M. Viollet-le-Duc, in his *Dictionnaire du Mobilier Français*, has most ingeniously constructed an imaginary armour for the horse in the XIIth century, but he was working with next to nothing whereon to found his theories.

We can clearly see the saddles of the invading Normans and their first descendants. They are represented quite simply upon the Bayeux needlework, indeed their construction appears very similar to the modern saddle of Tibet. The stirrup, in its general form and its means of attachment to the leathers, was the same as that in use to-day. In the Bayeux needlework an excellent illustration is given (page 44, Fig. 53). Stirrups here are clearly defined, and are similar to those specimens which in limited numbers have been exhumed or otherwise handed down to us. We give illustrations of

## EUROPEAN ARMOUR AND ARMS

four (Fig. 125, *a, b, c, d*) that can, with safety, be assigned to the Xth, XIth, XIIth, and XIIIth centuries.

Of the glittering effect given to much of the harness by the introduction

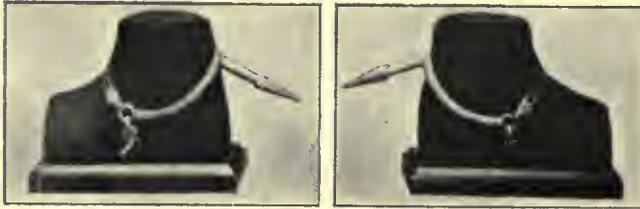


FIG. 127

THE SPURS OF SAINT FERDINAND (1199-1252)

F 159, 160, Royal Armoury, Madrid

of gold and silver plating, and by the addition of settings of precious stones, we have ample proof, exclusive of our knowledge of the ancient British caparisons of pure gold that have from time to time been discovered. In the Royal Armoury of Madrid is the famous Visigothic bit (Fig. 126), found on a battle-field in Andalusia; there, too, can be seen the spurs of Saint Ferdinand (Fig. 127). These latter are on the "pryck" principle, and are fine examples of careful workmanship, constructed as they are of iron with incrustations of gold, and inlaid with small castles in silver; which same device in gold appears on the heel straps. The Visigothic bit is on the principle that would to-day be known as a simple bar snaffle; but in place of rings for the attachment of the bridle and reins, it has four oblong plaques pierced with holes. These piercings are in the form of dragons' heads and crosses alternating with monograms. The whole is incrustated with silver almost in the Scandinavian manner, or as we are better acquainted with this inlay, as it figures on Chinese bronzes of the Sung and early Ming dynasties.

In the Galerie d'Apollon of the Louvre (Cat. No. 18) there is the sumptuous pair of spurs of pure gold, set with garnets and chased with fleur-de-lis, which, like the sword (Figs. 112, 114, and 115), came from the Treasury of the Abbey of St. Denis, Reims, and which, like it, have been associated with the name of Charlemagne. The spurs have played their part in the coronation ceremonies of the kings of France since the period of their

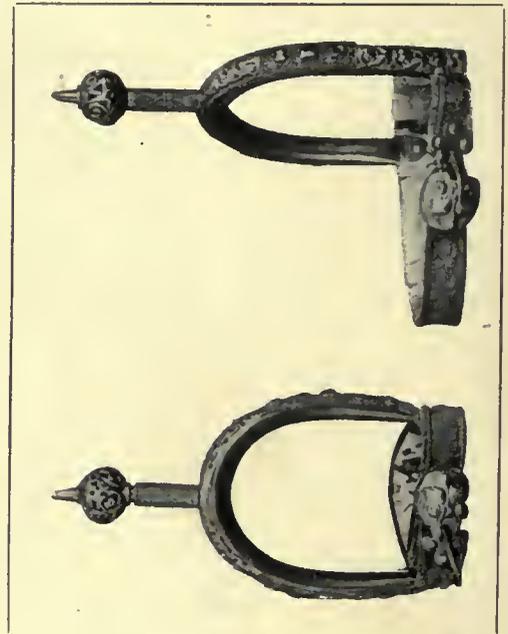


FIG. 128. PAIR OF SPURS OF GOLD

Early XIIIth century. From the regalia of France

Galerie d'Apollon, Louvre  
Cat. No. 18

## GENERAL HISTORY A.D. 1100—1320

production, either late in the XIIth or in the early part of the XIIIth century, and so they were highly prized, as the Abbey of St. Denis jealously guarded the privilege of the conservation of coronation regalia. It was the Duke of Burgundy's function at the coronation to attach them to the king's heel and immediately take them off again. In the early years of the XIXth century they were subject to the most drastic restoration, indeed, parts of them were entirely re-made (Fig. 128). However, golden spurs are mentioned in inventories of the Treasury of St. Denis by Doublet (1625), by Millet (1645), and by Félibien (1706), likewise illustrated on Plate IV of the latter's work, where they are apparently shown in much the same form as they appear to-day. Omont also alludes to golden spurs in 1739.

We may surmise that with such luxurious horse trappings in existence in the XIIIth century the standard of adornment must have been maintained and even surpassed during the succeeding centuries. From a comparison of the various types of bits that have been discovered, we may come to the conclusion that as yet the curb with its accompanying lever bars was unknown; for the bits of the XIIth and XIIIth centuries actually extant confirm the contemporary illustrations in showing us but the simple snaffle type, which could have varied in severity only according to the formation of its mouth bar.

Of the spur, with its knightly significance, much has been written. The excellent "The Book of Spurs," by J. James, F.S.A., reprinted from the *Journal of the British Archaeological Association*, gives in full the history of the spur from its first appearance down to the XVIIth century, and treats of the various types and their approximate dates, going far more fully into the subject than it is possible for us to do here. The subject has recently been dealt with by Mr. de Lacy Lacy in "The History of the Spur." The present writer has also alluded to its development in Chapter XXII.

## CHAPTER IV

CONTINUED GENERAL HISTORY OF ARMOUR AND ARMS,  
A.D. 1200—1390



ETWEEN the end of the XIIth and the commencement of the XIIIth century, the skull-piece of the helmet has become hemispherical, instead of conical. There is in the Musée d'Artillerie a helmet of this type, No. H 3 (Fig. 129). It is of iron, reinforced with bands of the same metal. It has a movable neck defence and cheek-plates, but attached nasal-guard. This helmet was found in



FIG. 129. HEMISPHERICAL HELMET, LATE XIIITH CENTURY  
H 3, Musée d'Artillerie, Paris

the river Somme near Abbeville, and presented to the Musée d'Artillerie by M. Boucher de Perthes. A helmet not quite so complete, but of almost identical form, is in the Imperial Armoury of Vienna, though there recorded, we feel in error, as belonging to the VIIth century (Fig. 130). Richard I, on his great seal, is represented with a head-piece of a shape similar to these (Fig. 131).

Entering the XIIIth century we shall first take into consideration the

flat-topped cylindrical helmet worn in the same manner as the preceding, over a mail hood. To the best of the present writer's belief there is no genuine helmet of this type in existence, but a very excellent representation of it is to be seen on the Magnaville effigy in the Temple Church, London (Fig. 132, *a*, *b*). There is no effigy that is more widely known than this monument to Geoffrey de Magnaville (or Mandeville), Earl of Essex, who died before the end of the XIIth century, and none which gives us so excellent an illustration of a knight's apparel in the early part of the XIIIth century. Geoffrey de Magnaville was excommunicated for ravaging the King's desmesnes. Being mortally wounded, he was visited by Knights Templars, and having clothed himself in their costume as a passport to heaven



FIG. 130. HEMISPHERICAL HELMET,  
LATE XIIITH CENTURY  
Imperial Armoury, Vienna



FIG. 131. THE GREAT SEAL  
OF RICHARD I  
Showing the hemispherical helmet

he endowed the order with a certain proportion of his property. His body for some years hung in a leaden shell from a tree in the old Temple garden; but absolution being subsequently accorded him, it was buried in the New Temple Church, after which no doubt the effigy was raised to him. We draw attention to these facts as accounting for the remarkably advanced fashion of the armour in this effigy, which appears to have been erected in the first quarter of the XIIIth century. On it we see a type of helmet almost cylindrical in form, and fully  $7\frac{1}{2}$  inches high. Down the front is applied a band of metal, which may be for strengthening the helmet, or for concealing the join, as the skull no doubt was made of several pieces riveted together. Around the chin is a band of metal lined with a thick quilted material having the appearance of the metal chin-straps of a modern Life

## EUROPEAN ARMOUR AND ARMS

guard's helmet, though considerably broader and apparently of one piece. Besides doing duty as an ordinary chin-strap it would also afford considerable protection.

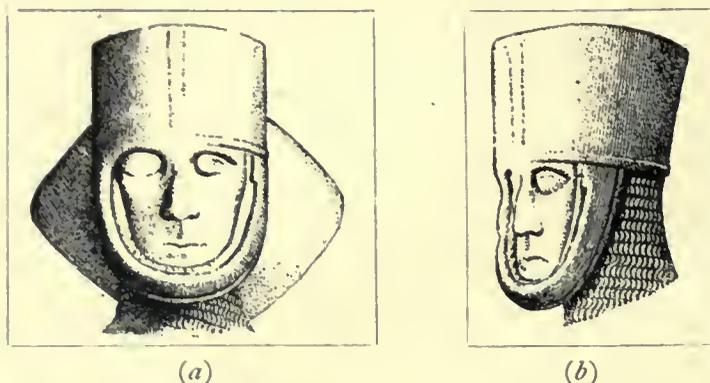


FIG. 132. FROM THE MAGNAVILLE EFFIGY IN THE TEMPLE CHURCH, LONDON. EARLY XIII<sup>TH</sup> CENTURY

(a) Front view; (b) profile view.

From Stothard's "Monumental Effigies"

The great seal of King John shows him wearing a cylindrical helmet of this type, but with a rounded top and no chin-piece (Fig. 133).

Other details of the Magnaville effigy show us complete and simple chain mail entirely covering the knight. It has the hauberk down to the knee; while the chausses and mail sollerets are of the simplest construction. This is almost one of the first instances

of gauntlets of mail formed by the extension of the hauberk sleeve, a feature which can also be seen in the fine effigy in the cathedral church of Gloucester, erroneously said to represent Robert, Duke of Normandy (see page 112).

It may safely be said there is no European body armour of the period with which we now deal in existence; it is therefore fortunate that we have many effigies which have withstood the ravages of time to assist us with true and reliable evidence regarding the fashions of those ages. Had this evidence been lacking our knowledge would have been very sparse; whereas now we are able to trace with very fair accuracy the different changes that took place from the early years of the XIII<sup>th</sup> century until the full plate harness was evolved. Even colour on certain effigies is recorded, but alas, in many cases it is fast disappearing. To prove this we have only to look at the first hand-coloured edition of Stothard's famous work on monumental effigies. There we see that he has recorded on certain of the plates colour that must have existed in his time, but which during the century now elapsed since the publication of his work has to-day almost disappeared.



FIG. 133. THE GREAT SEAL OF KING JOHN

Showing the cylindrical helmet

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Certain effigies, after suffering from the vandalism of the Commonwealth, have been subjected to restoration; we must therefore exercise some care in our search for evidence of detail lest we confuse the work of the mid XIXth century restorer with that of the original sculptor.

Taking these facts into consideration, we think it advisable occasionally to compare with the effigies and brasses other forms of sculpture and contemporary illuminations.

Towards the middle of the XIIIth century the cylindrical head-piece became gradually lower until it developed into a flat steel cap, which was worn *under* the mail coif or hood. Good examples of this are shown in the



FIG. 134. WILLIAM LONGESPÉE, EARL OF SALISBURY, FROM HIS EFFIGY IN THE CATHEDRAL CHURCH OF SALISBURY, ABOUT 1230

(a) Profile view; (b) three-quarter view; (c) the top of the coif showing the concentric arrangement in the chain mail. From Stothard's "Monumental Effigies"

effigies of William Longespée, Earl of Salisbury, set up in the cathedral church of Salisbury about 1230 (Fig. 134), and in the effigy of the same date to which we have just alluded in the cathedral church of Gloucester, wrongly attributed to Robert, Duke of Normandy (Fig. 135). The steel cap worn under the mail as depicted in these two effigies was, in all probability, thickly padded in the interior, and having the lining sewn on by means of the series of small holes, as in the later examples.

The knight wearing this steel cap drew over it the mail hood, which was held in position round the sides of the steel cap by a thong of leather laced through the mail as often represented in contemporaneous sculpture. The part of the mail itself that covered the chin was then raised and secured, in nearly every case, on the right temple, in the manner so admirably

## EUROPEAN ARMOUR AND ARMS

suggested by M. Viollet-le-Duc in his *Dictionnaire du Mobilier Français* (Fig. 136). By degrees the flat-topped skull cap conformed to the contour of the head; and as evidence of its existence in this shape towards the



(a) (b) (c)

FIG. 135. AN EFFIGY IN THE CATHEDRAL CHURCH OF GLOUCESTER, ATTRIBUTED VAGUELY BUT ERRONEOUSLY TO ROBERT, DUKE OF NORMANDY (ABOUT 1230)  
 (a) A full face view; (b) the right profile view; (c) the left profile view  
 From Stothard's "Monumental Effigies"

close of the third quarter of the century, reference may be made to the effigy attributed to Richard Wellesbourne de Montfort, in Hitchendon Church, Buckinghamshire, youngest son of the great Baron Simon (Fig. 137).

The skull cap or *cervelière* is here shown as quite hemispherical, with

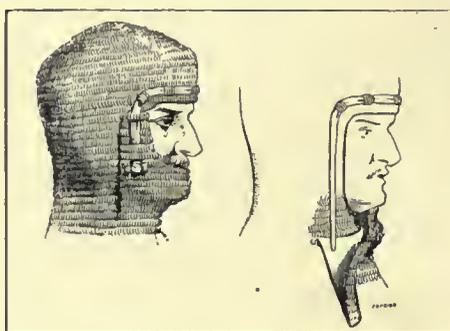


FIG. 136. SUGGESTED WAY OF LACING THE MAIL  
 COIF ON THE RIGHT TEMPLE  
 After Viollet-le-Duc

its extreme edge appearing on the forehead below the coif. The actual skull cap was probably very similar in appearance to one in the author's possession which, although of the XVth century, is a similar head defence. It is modelled

GENERAL HISTORY A.D. 1200—1390

to the shape of the skull, and has a row of large holes about an inch apart round the edge for the attachment of the lining. It closely fits the head, covering the upper part of the ears, where it is slightly embossed for that purpose (Fig. 138).



FIG. 137. FROM THE EFFIGY ATTRIBUTED TO RICHARD WELLYSBURNE DE MONTFORT, HITCHENDON CHURCH, BUCKINGHAMSHIRE  
Showing the hemispherical steel cap worn beneath the coif of mail. From Stothard's "Monumental Effigies"

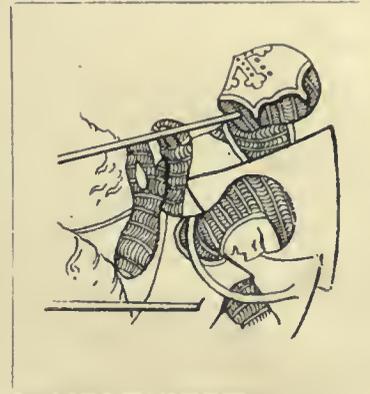


FIG. 139. FROM "THE LIFE OF OFFA I"

A manuscript of the XIIIth century (Cott. MS. Nero, D i), British Museum. Showing a visor attached to a chain mail coif

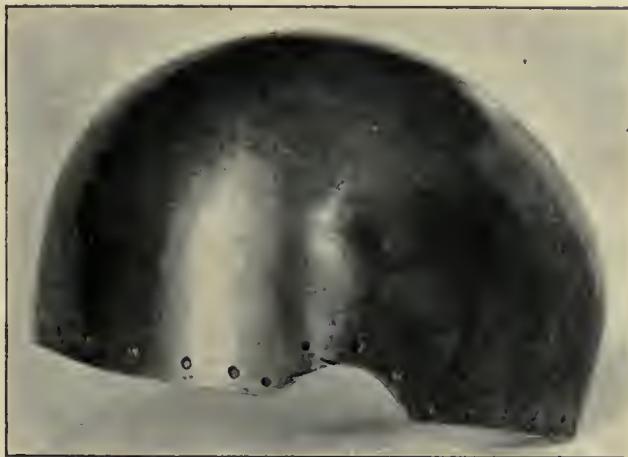


FIG. 138. HEMISPHERICAL STEEL CAP

Such as would be worn beneath a mail coif, of about 1240

This cap, however, is probably of the third quarter of the XVth century

Later the larger helm was worn over these steel caps and coifs; but without such a head-piece the face was exposed, though for its protection we have noted one illustration where a visor is worn in conjunction with a chain mail coif (Fig. 139).

*it is  
17th c.  
King's College, Cambridge*

## EUROPEAN ARMOUR AND ARMS

Occasionally we find represented a form of visor (or may we call it the *ventaille*?) permanently attached to a steel cap when worn over the mail coif, as, for instance, in an illumination of Baldwin, Count of Flanders, 1192, quoted and illustrated by Planché. In the illumination the head-piece figures as a low cylindrical helmet, to which is riveted a visor resembling an inverted letter T, the lower arms drawn out to some width, indeed, much after the fashion of the helmet referred to shown in the Huntingfield Psalter (page 68, Fig. 84).



FIG. 140. MARTYRDOM OF THOMAS À BECKET

Latin Psalter, XII-XIIIth century  
Harleian MSS. 5102, British Museum

The low-crowned steel cap, or, as it was termed, the *cervelière*, was not invariably placed beneath the coif of mail, for we can quote three instances where a coif is represented thrown back from the head, certainly suggesting that whatever was the steel head-piece worn with it, it must have been placed over and not under it, as otherwise it would have been exposed to view. An illumination already referred to (page 56, Fig. 70), from the album of Villard de Honnecourt (about 1260) shows the mail coif thrown back, but beneath it is represented a close-fitting bonnet of some soft material to protect the wearer's head from the chafing of the mail. Again on a brass at Norton, Durham, the coif of mail is depicted thrown back and the head bare, whilst in

the later effigy, supposed to be that of Robert Ross, in the Temple Church, London, the same evidence asserts itself.

In an illuminated page (Fig. 140) depicting the martyrdom of Thomas à Becket, from a Latin psalter of the transitional years of the XIIth-XIIIth century (Harleian MSS. 5102, British Museum), the head-pieces of the so-called avenging knights are of these three types to which we have alluded. The foremost has the low cylindrical helmet worn over the mail coif, the knight behind him the chain mail coif, with apparently no steel cap beneath, for his hair is visible above the forehead, whilst the hindmost knight wears a high

hemispherical helmet not unlike that illustrated (page 108, Fig. 129), but without the nasal-guard.

We have already made use of, for the first time in dealing with the history of armour and arms, certain illuminations which have yielded to us much interesting detail. The next to which we shall refer is a leaf from a series of Old Testament pictures executed by a French miniaturist in the third quarter of the XIIIth century, and given in the XVIIth century to Shah Abbas, King of Persia, by Cardinal Bernard Maciejowski, Bishop of Cracow. The subjects represented on its two sides illustrate the life of David. Two leaves from the same book are in the *Bibliothèque Nationale*, Paris, whilst others are in the Phillipps Collection, Cheltenham. When the book was in its entirety in Persia a Persian translation of the Latin text was added in the margins. The leaf we illustrate was brought recently from Teheran by an Armenian priest and is now in the collection of Mr. S. C. Cockerell. This most delicately drawn and carefully executed page affords us a minute record of military apparel in the third quarter of the XIIIth century. As the illumination appears to be of French origin, we may judge the fashions to be a little in advance of those prevailing in England at the time. The vellum is painted on either side. One side, in which merely civil costume is recorded, shows episodes in the life of Saul, but the side which we reproduce depicts the history of Absalom, and is a veritable mine of information regarding the armament of the period with which we are dealing. The three subjects are in two rows beneath arched canopies. Under the two canopies in the top row we see the battle of Ephraim and the discovery of Absalom by Joab (Fig. 141), while the third subject, the return from the battle, occupies the two canopies of the lower row (Fig. 142). Certain soldiers in the battle of Ephraim wear new types of head-piece not yet mentioned by us, the complete helm and the war hat or *chapel-de-fer*. All the soldiers are in full chain mail with the coif, which appears from its well defined hemispherical form to be worn over the steel cap; each warrior wears the surcoat uncharged with any heraldic device, but in every case of a distinctive colour, occasionally carried out in the caparisons of the horse which, as yet, appears still unarmoured. All the hauberks terminate a little above the knees, while the mail chausses, sollerets, and hauberk sleeves fit closely to the limbs, the long arms of the hauberk in every case terminating in mittened gloves with a separate thumb. Kite-shaped shields, of no great size, are used by a few of the warriors only. This could be explained if we accept the theory that most of the shields, like

## EUROPEAN ARMOUR AND ARMS

the spear and lance, which also seldom appear, may have been discarded in the heat of the battle at close quarters, when the sword and mace were called into requisition. We must note with what care all the details are drawn. Indeed, the artistic excellence of the whole illustration is far beyond that of any production of the kind with which we are acquainted. How faithful is the modelling as expressed in the outline drawing of the arms and hands, and how effective is the general grouping of the figures! The colouring, too, is most accurate, all the chain mail is clearly represented in blue, while the bulk of the swords and spear-heads are in burnished gold and silver. In the first desperate battle scene seven war helms are shown painted in polychromatic colours. All seven are of the same shape, roughly cylindrical. So carefully are they drawn that we can almost follow the methods of their construction. Each may be described as having a cylindrical skull-piece, composed of two lengths of metal joined down either side, fitted by rivets to the flat crown plate. To this flat cylindrical helmet, for purposes of better defence, a plate of metal has been added at the back, bringing the bottom of the helmet down to the nape of the neck. This is also done in the front, but with a somewhat deeper plate, which forms a strong immovable mezail, in which a series of oblong and circular holes have been made for breathing purposes. The sight aperture or ocularium is formed, as in the later tilting helms, by the space left between the lower edge of the skull-piece and the upper edge of the mezail, which here appears to be reinforced around its edge by an additional plate of metal, the finish of which at either side takes trefoil form. In one of the helms a piercing for hearing purposes is seen just below the position of the ears. It is noticeable that these helms, as indeed with every helm until we reach the end of the XIVth century, the entire weight of the head-piece is borne upon the head, and is in no way supported on the shoulders. It will be observed that despite the combined defence of the steel cap, the coif of mail, and the additional helm, the battle-axe and sword have in two instances effectively cleft the skull of an unfortunate opponent, thus proving by clear and contemporary evidence that such precautionary additional armaments were not an unfailing protection against the weapons of an adversary. We have here drawn attention to the helm on its first appearance, but from this time onwards we come across it in many effigies and contemporaneous missals.

We appreciate almost for the first time, in the helmet worn by one of the combatants in the middle distance of the battle of Ephraim scene (Fig. 141), the war hat or *chapel-de-fer*, so commonly in use during the XVth century.



FIG. 141. THE BATTLE OF EPHRAIM AND THE DISCOVERY OF ABSALOM BY JOAB

From a book of the Gospels. French; third quarter of the XIIIth century  
Collection: S. C. Cockerell, Esq.



FIG. 142. THE RETURN FROM BATTLE

From a book of the Gospels. French; third quarter of the XIIIth century  
Collection: S. C. Cockerell, Esq.

## EUROPEAN ARMOUR AND ARMS

Although here we record it for the first time, it appears in almost its final shape. But we must take into consideration that the war hat depicted in the famous wall-painting formerly in the old Palace of Westminster, from which coloured engravings were published by the Society of Antiquaries in the "Archaeologia," is almost of the same form, though these mural paintings are considered of even earlier date (Fig. 143).

In the third subject of this French illumination (Fig. 142) we observe that all the warriors wear the simple coif over the steel caps. None carries the helm; which goes to prove that the helm, though now but a light head-piece compared with those of later date, was only put on at the last minute



FIG. 143. FROM THE PAINTED CHAMBER,  
PALACE OF WESTMINSTER

Showing the *chapel-de-fer*. Early XIIIth  
century



FIG. 144. FROM THE PAINTED CHAMBER,  
PALACE OF WESTMINSTER

The centre figure in the lower row wears a  
form of primitive helm. Early  
XIIIth century

before a combat. As in the other illustrations, the details of the shields, lances, and the general equestrian accoutrements are admirably rendered.

We have for the first time mentioned the large helm in describing the details of this remarkable illumination, which we may date at about 1250-70; but some forty years anterior to this date we note a helm-like head-piece figuring in the frescoes of the painted chamber at Westminster, to which we have just referred. In company with the warrior wearing this helm are others wearing the coif of mail, and not a few covered with the conical head-piece with a nasal-guard—a most perplexing combination which proves the overlapping of fashions in head defence (Fig. 144). Of a date following closely upon this comes the Seal of Richard I, on which the King

is represented wearing a cylindrical and crested helm furnished with what appears to be a movable mezzail (Fig. 145, *a, b*). The helm has a ridged comb rounded to a half circle, the edge set off with pen-feathers, the sides enriched with one of the leopards of his arms. In a manuscript in the Royal Library of Berlin, the *Eneidt* of Heinrich von Veldegke, there appears a very characteristic early XIIIth century helm with a true heraldic crest in the form of a lion passant (Fig. 146). This was possibly of painted metal, for we remember seeing many years ago exhibited for sale in Paris the fragment



FIG. 145. (a) THE GREAT SEAL OF RICHARD I

(b) THE GREAT SEAL OF RICHARD I construed by John Hewitt, from "Ancient Armour and Weapons in Europe"

of an early helm, on which was riveted the figure of a monster in thin wrought iron. It was of inconsiderable weight, but of sufficient substance to form a very solid crest. The present whereabouts of this interesting fragment we are unaware (Fig. 147). It is impossible to say whether the crest on the early helm was erected with any idea of its affording an extra protection or not; but at a little later date such cresting upon a helm as appears on the Humphrey de Bohun Seal (Fig. 148) and on the Edward of Carnarvon, Prince of Wales's Seal (Fig. 149), certainly brings to one's mind the crest of the high XVIth century morion, which was mainly fashioned for extra defence.

Between the years 1220 and 1330 we find in the contemporary illumina-

## EUROPEAN ARMOUR AND ARMS

tions many and divers forms of the primitive helm; but so far as we are aware not a single authentic specimen anterior to about 1360 is in existence. To us it seems almost incredible that Mr. James Planché, to whom antiquaries



FIG. 147. THE SKULL-PIECE OF AN EARLY HELM (?)  
Showing a small crest of metal

owe so much for his archaeological research, should have accepted as genuine some puerile evident forgeries in the Tower, and also a blatant

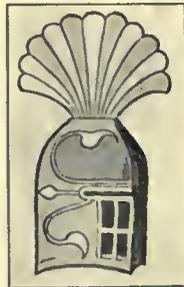


FIG. 148. FROM THE SEAL OF HUMPHREY  
DE BOHUN, EARL OF HEREFORD,  
ABOUT 1300

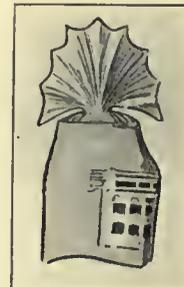


FIG. 149. FROM THE SEAL OF EDWARD  
OF CARNARVON, PRINCE OF WALES,  
ABOUT 1300

sham which even the Tower authorities could not be persuaded to purchase. In his famous "Dictionary of Costume," published in 1876, he illustrates a page of "genuine existing helms of various types"; of these exactly only one half are authentic.

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## GENERAL HISTORY A.D. 1200—1390

We have now to deal with the first developments of plate armour for the body, as it is in the middle of the XIIIth century that we note for the first time the introduction of plates as an additional defence to the chain-mail. Whatever the nature of this defence, whether iron, copper, or hardened leather, its first position was over the vulnerable knee-joints, to be followed almost immediately by its application to the elbow. It is somewhat difficult to determine if it was first added as a defence or as a shield against the constant drag and chafing of the mail on the prominent joints of the legs and arms. A shield for this purpose would seem to have been almost a necessity, when it is considered that both the sleeves of the hauberk and the chausses of mail had by now become closer fitting. An admirable example of the knee-

plates, knee-cops, or *genouillères*, added alone, is to be seen in the effigy of an unknown knight in Gosberton Church, Lincolnshire, the date of which should be about 1260 (Fig. 150). Actual defences of such a type exist only in one known collection, that of Mr. W. H. Riggs, given to the Metropolitan Museum of New York,



FIG. 149A. A PAIR OF KNEE-COPS  
Early XIVth century. Collection: Mr. W. H. Riggs,  
Metropolitan Museum, New York

where several pieces of boiled leather defences for knees or elbows are to be seen (Fig. 149A). They have been assigned to the XIVth century, and were discovered in a grotto in the neighbourhood of Bordeaux. Excellent counterparts of *genouillères* that purport to be of mid-XIIIth century date are in the Sir Noël Paton Collection, Royal Scottish Museum, Edinburgh. These we illustrate as showing the probable appearance of such plates (Fig. 151, *a*, *b*). A representation of *genouillères* differently constructed, and made probably for a different purpose, are seen upon the effigy, now in Hatfield Broad Oak Church, Essex, of Robert de Vere, Earl of Oxford, who died in 1221, but whose effigy does not seem to have been completed until about 1260. Here we note over the mail of the thighs a form of trouser of gamboised or quilted material, reaching to the knee, the knees

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themselves being defended by octangular pieces of plate armour. So in this armament we have an additional defence worn over the mail chausses,



FIG. 151. (a) OUTSIDE VIEW OF A GENOUILLÈRE  
Purporting to be of the middle of the XIIIth century

which apparently continues under the *genouillères*. This makes the sary as a shield against it may therefore be considered as purely a defensive plate (Fig. 152).

With the progress of the century, additional plates of defence were gradually added. The effigy of a Knight church of Salisbury, about 1270, and the younger Long-1250, shows besides plate, an almost similar



FIG. 150. THE EFFIGY OF AN UNKNOWN KNIGHT IN GOSBERTON CHURCH, LINCOLNSHIRE  
About 1260. From Stothard's "Monumental Effigies"

These, in both cases, are attached to the hauberk (Fig. 153). Gauntlets in a primitive form were added at the close of this century, as were also demi-greaves and jamps known as bembergs.

Before we pass on to describe the greater changes in equipage, it would perhaps be instructive to piece together our notes at this point, and to clothe



FIG. 151. (b) THE INSIDE VIEW  
Formerly in the Collection of Sir Noël Paton, now in the Royal Scottish Museum, Edinburgh

tinues under the *genouillères*. This makes the sary as a shield against it may therefore be considered as purely a defensive plate (Fig. 152).

of the century, additional plates of defence were gradually added. The Templar in the cathedral garbed in the costume of jectured to be William, espée, who perished in circular *genouillères* of defence to the elbow.

the knight of about 1270 so as to have his complete armament clearly in our mind.



FIG. 152. THE EFFIGY OF ROBERT DE VERE, EARL OF OXFORD, WHO DIED IN 1221, NOW IN HATFIELD BROAD OAK CHURCH, ESSEX

The effigy was not completed until about 1260-1270. From Stothard's "Monumental Effigies."



FIG. 153. EFFIGY OF A KNIGHT, IN THE CATHEDRAL CHURCH OF SALISBURY

Ascribed with great uncertainty to William Longespée the younger. He died in 1250. The effigy is about 1270. From Stothard's "Monumental Effigies."

Over an under-garment, doubtless closely cut and fashioned of leather, the knight would first draw on the mail chausses, into which were worked

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the knee-caps and bembergs. As before stated, these additional defences were ordinarily of iron, but sometimes of bronze or *cuir bouilli* which was leather hardened by a process of boiling in a glutinous substance. Next was donned the hauberk of chain mail, into the sleeves of which the *coudières* of plate were likewise introduced. Upon the head was placed the hemispherical steel cap, over which was drawn the mail coif. Then over the hauberk was added a gamboised or quilted garment that went in later times by the name of the gipon. This was not, however, invariably worn, the surcoat which came next sometimes covering the hauberk itself.

King John, on his great seal, is the first English monarch to be represented wearing the surcoat over his chain armour (see page 110, Fig. 133), and it figures thus in nearly all the effigies of the XIIIth century. The generally accepted view is that its use originated with the Crusaders, who veiled their metal armour from the rays of the Syrian sun with such a garment, which at the same time, from its possible heraldic treatment, distinguished its knightly wearer. The surcoat, from its weatherproof qualities, protected the armour from the elements, for according to the contemporary authority in "The Hwowyng of King Arthur":

Gay gownes of grene  
To hould thayre armur elene  
And were hitte fro the wete.

Over the surcoat the knight girded his horizontal belt, an article of considerable importance, attached to which was his sword and dagger. M. Viollet-le-Duc describes it as *la ceinture noble*, for, in its full elaboration, it does not appear to have been worn by any under the rank of knight. An existing belt of this form, though of a later type, possibly early XVth century, is to be seen in the National Bavarian Museum of Munich. Of the type of sword worn with such a belt we have already spoken at some length in dealing with those of a somewhat earlier period, and as the form of their hilts until the second quarter of the XIVth century underwent but very slight alteration, our former description will suffice.

Of the dagger of the closing years of the XIIIth century it is somewhat difficult to speak authoritatively, for none that we can with certainty assign to this exact period are known to the present writer, but for the type we can refer to the illumination (page 130, Fig. 159). On the earlier effigies the daggers are usually broken; indeed, we are unable to show an example prior to that on the Kerdeston effigy, 1337, in Reepham Church, Norfolk.

The knight still carried the shield, which was of the same heater shape

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though very considerably reduced in size. He also carried on the saddle-bow the helm of the type illustrated (page 117, Fig. 141), and had as auxiliary weapons, lance, war-hammer, or mace. Finally he was mounted on a richly caparisoned war-horse, which, however, was still unprotected by armour.

\* \* \*

From the early Norman times up to the period we have now reached—practically the end of the XIIIth century—the long-bow had been in continuous employment, as we see from its constant appearance in contemporary illuminations; but with the gradual introduction of the crossbow or arbaleste, which came into fairly general use by this time, it lost for a period some of its popularity.

Straight-bow not  
longbow

About the origin of the arbaleste or mechanical bow there has been from time to time considerable discussion. Sir Samuel Meyrick states that it was an invention of the Roman Empire in the East, suggested by the more ancient military engines used in the besieging of fortresses; certainly the word *arbaleste* or *arcubaleste* is derived from the Latin *arcus* (a bow) and *ballista* (an engine for hurling missiles). As an instance of its earliest occurrence it has been suggested that Wace, in his description of how William the Conqueror hunting in his park at Rouen handed his strung and charged bow to a retainer on the receipt of the news of the death of Edward the Confessor, intended that the word *arc* should signify a cross-bow, since it would be impossible to hand to any one an ordinary bow bent with the arrow in position ready to be discharged.

Wace's description of  
the scene.

“Entre ses mainz teneit un arc  
Encordé l'aveit é tendu  
Et entésé é desentu.”

This is a suggestion that is justified by facts; but its adoption would merely establish the early use of the arbaleste as a sporting piece.

In the second half of the XIIth century, in the reign of Stephen, the employment of the arbaleste in war was prohibited by the twenty-ninth canon of the second council of Lateran, under Pope Innocent II, “as a barbarous weapon and unfit for Christian warfare.” It was therefore, for a time, condemned.

King Richard I, however, considering its use permissible against the infidels in the Crusades, again brought the arbaleste into general fashion and finally established a body-guard of crossbow men. It can but be con-

## EUROPEAN ARMOUR AND ARMS

sidered a stroke of poetical justice that Richard's own death should have been brought about by a bolt discharged from such an engine.

Matthew Paris, in his XIIIth-century writings, constantly refers to the arbaleste, though he gives no accurate description of it. Certainly the earlier crossbows were charged by the pull of the arm and not by any mechanical means, but the stirrup at the fore-end of the weapon figures in the very first representations. In this was thrust the foot, and the string was then drawn back until engaged in the notch, or barrel, from which it was afterwards released. The penetrating power of the bolt, arrow, quarrsel, or quarrel, shot from the crossbow was great; but its range, if we can trust the records, was short. Roger Ascham, the chronicler, tells us there were three essential parts in the composition of the arrow—"the steel (or wand), the feathers, and the head. Steels are made of divers wood, blackthorne, beech, elder, aspe, salowe," etc., etc. "Sheaffe arrowes should be of ashe, and not of aspe, as they be nowadays." Bolts and arrows were variously fired from the crossbow. From the ordinary bow only the arrow.

In the XIIIth century the pay for a Bowman was threepence a day; but if mounted, he could depend upon sevenpence to fifteenpence, according to the steeds he possessed.

It is interesting to note that in the first years of the XIVth century the mechanical arbaleste was almost entirely superseded by the earlier long-bow, only to be again revived at the beginning of the XVth century. This falling out of favour of the arbaleste was only apparent to any extent in England, and was probably due not to any want of superiority in the arbaleste itself as an instrument of war, but to the temporary revival in popularity of the long-bow which, in the hands of the Normans, had always proved a most effective weapon, and had naturally won for itself a good deal of sentimental regard. The fascination, too, of acquiring proficiency in the use of a weapon like the long-bow, which necessitated such expert handling, kept it in favour for a number of years until the simple mechanism and effective penetrating qualities of the arbaleste bolts once more proclaimed its superiority.

From an incised Chertsey tile of the third quarter of the XIIIth century (Fig. 154) we are able to show the mounted archer habited in complete chain armour covered with the short surcoat; on his head is a cylindrical helm of the time, which to us appears an extraordinary impracticable head-piece for an archer. Our illustration (Fig. 155) of a mounted archer of rather later date is quite knightly in appearance; for over a complete hauberk and chausses of chain mail he wears the long knightly surcoat,

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about the middle of which is girded the quiver of arrows. The horse is caparisoned but unarmoured. Most interesting, however, is the helm upon his head, which is of an advanced form, similar to the knightly helm of the second quarter of the XIVth century. In the illuminated manuscript in which this mounted archer is drawn (Roy. MS. 20, D i, British Museum), are shown foot archers, but almost similarly armed with the helm as head-piece.

\* \* \*

The transitional years of the XIIIth-XIVth centuries show us little variation in the formation of the sword or its hilt, and it is not until the first quarter of the XIVth century had passed do we note any characteristic



FIG. 154. MOUNTED ARCHER WEARING THE HELM, ABOUT 1260

From an incised Chertsey tile  
From Dr. Manwaring Shurlock's  
"Tiles from Chertsey Abbey"



FIG. 155. MOUNTED ARCHER WEARING THE HELM, ABOUT 1300

Royal MS. 20, D i, British  
Museum

features. However, before we allude to the ordinary straight sword of the first half of the XIVth century, let us pause to consider a somewhat different form of sword, or rather blade, that was gaining popularity, namely, the slightly curved blade widening at the point and known by the name of the falchion. We find it mentioned by Guiart, the famous writer of the XIIIth century. It figures in the hands of one of the warriors in the fresco formerly in the painted chamber, Westminster, assigned to the early years of the XIIIth century (page 118, Fig. 143, page 340, Fig. 409, and page 734, Fig. 907), in the hand of a grotesque figure taken from the Louterell Psalter (Cott. MS. Nero, D ii, British Museum), Fig. 156, and in the hands of a knight from an initial letter taken from an English illumination of about 1280 (page 130,

## EUROPEAN ARMOUR AND ARMS

Fig. 159). It is not, however, until the first quarter of the XIVth century that we are able to give an illustration of an actual weapon of this type.

The first falchion which we illustrate is an historically famous weapon

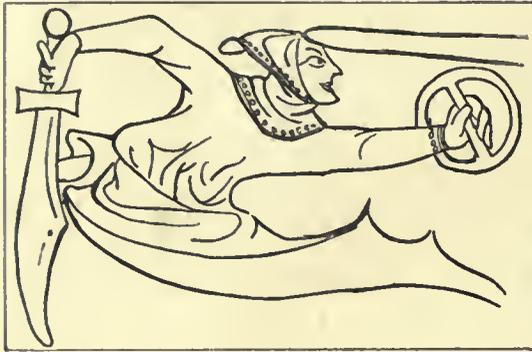


FIG. 156. THE FALCHION

From the Louterell Psalter. Early XIVth century. Cott. MS. Nero, D ii, British Museum

known as the Conyers falchion, now preserved in the library of the cathedral church of Durham (Figs. 157 and 158 *a, b*). In the time of Bishop Flambard the manor of Sockburn in the county of Durham was granted with others to Roger de Conyers, which grant was subsequently confirmed by deed of Henry II, together with that of the Priory and Convent of Durham.

The manor was held under the Bishops of Durham on a tenure which required the Conyers of the day to present a falchion to the Bishop on his first entering his diocese. The tenure is distinctly described, and a falchion mentioned, in the inquisition held on the death of Sir John Conyers in 1396: "*Tenuit manerium de Socburne per servicium demonstrandi Episcopo unam falchion, ita quod postea Dom. Episcopus illud viderit restituat ostendenti, pro omnibus aliis serviciis.*"

In the very interesting description of the Conyers falchion contained

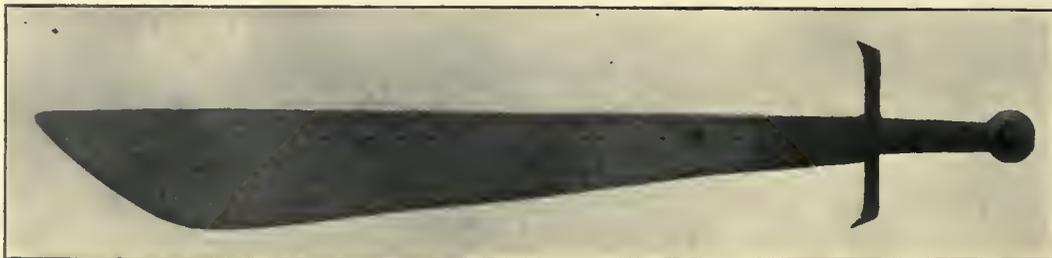


FIG. 157. THE CONYERS FALCHION

Early years of the XIVth century. A view of the whole  
Preserved in the library of the cathedral church of Durham

in "Archaeologia Aeliana," Mr. Clement Hodges states that the occurrence of the three lions passant of the Plantagenet kings on one side of the pommel (Fig. 158*a*) indicates that the date could not be earlier than the time of Henry II; therefore there could be little doubt that the falchion was of the

time of Hugh Pudsey, the tenth Bishop of Durham, and was consequently made before 1195. But we venture to disagree with Mr. Hodges; for we consider that the Conyers falchion more probably belongs to the first



FIG. 158. THE HILT OF THE CONYERS FALCHION, SHOWING DETAILS OF THE DECORATION  
 (a) Obverse side (b) Reverse side

quarter of the XIVth century, the existing weapon having been made to replace the original falchion of tenure. The three lions upon the pommel would do equal service under Edward II as for Henry II, not to mention

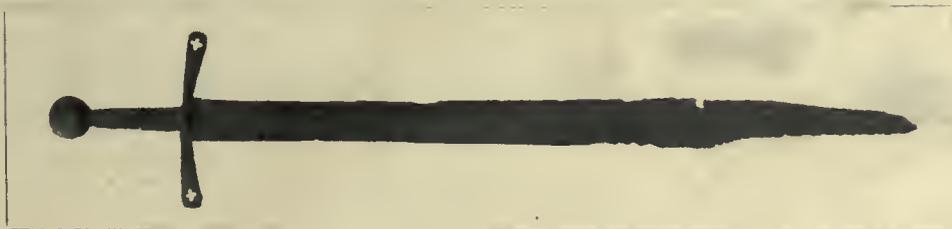


FIG. 158A. A FALCHION, MID-XIVTH CENTURY  
 Norwich Museum

the fact that the character of the ornamental engraving is of the type in use in the early years of the XIVth century. Finally, the technicalities of its make are more typical of the XIVth than of the XIIth century.

## EUROPEAN ARMOUR AND ARMS

Now preserved in the Norwich Museum is another falchion of about the same period (Fig. 158A) that was found in dredging the river Thorpe about the year 1833. Its entire length is 39 inches, with a wheel pommel and



FIG. 159. FROM AN ENGLISH (?) ILLUMINATION ABOUT 1280  
Showing the falchion, used in combination with the bosse or small circular shield. The dagger of the farther knight is worthy of scrutiny. Collection: Author's

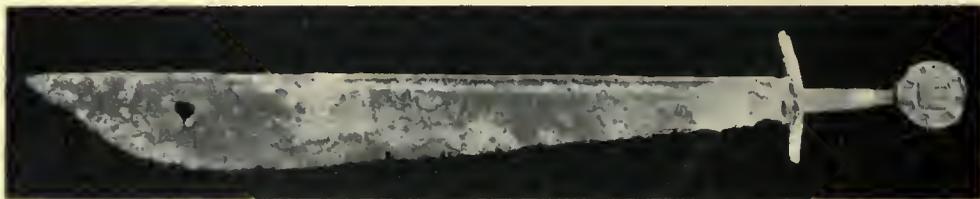


FIG. 160. FALCHION, EARLY XIVTH CENTURY, WITH THE ARMS OF THE GRAND  
CHÂTELET UPON THE POMMEL

Found in 1861 on the site of the Châtelet, Paris, by the Pont au Change  
Musée Cluny, Paris

quillons of brass very crudely engraved; on one side of the blade is inlaid in copper an armourer's mark, a crown. It is fully described in *Archaeologia*, vol. xxvii, pp. 435-437.

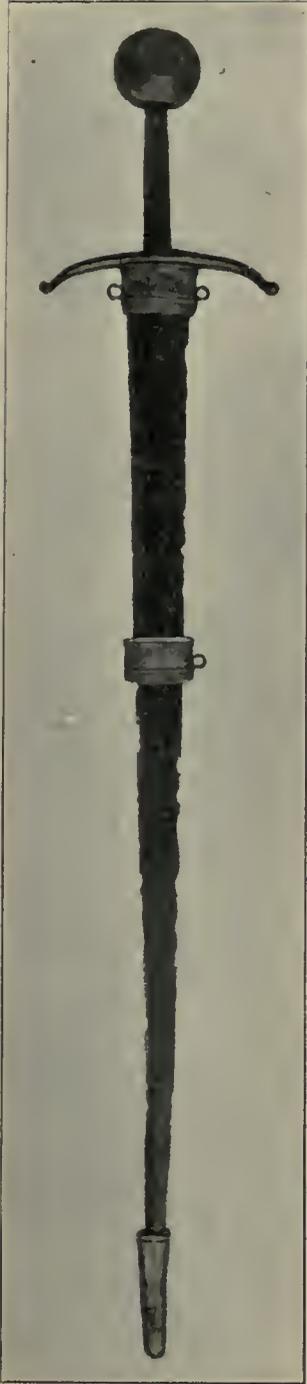


FIG. 161.  
SWORD, EARLY XIVTH CENTURY, FOUND IN THE THAMES, 1739

When excavating for the "new" Westminster Bridge. United Service Institute Museum, Whitehall

I



FIG. 163. SWORD, EARLY XIVTH CENTURY  
Found in France  
Collection: Author's



FIG. 162.  
SWORD, EARLY XIVTH CENTURY  
Found in France  
No. 5, Wallace Collection

S

## EUROPEAN ARMOUR AND ARMS

In the *Musée de Cluny* of Paris is a falchion very much of the same type and which is of about the same date, though perhaps a little earlier, but it is in every respect a less elaborate weapon (Fig. 160).

A fourth falchion that we can record, this time with a pommel of a flattened shield formation and with straight quillons of rectangular section, was discovered during the restoration of the Castle of Milan in the eighties of the XIXth century. It is now in the museum of that castle.



FIG. 164. SWORD, MIDDLE OF THE  
XIVTH CENTURY  
No. 10, Wallace Collection



FIG. 165. SWORD, THIRD QUARTER  
OF THE XIVTH CENTURY  
No. 8, Wallace Collection

Of the straight war sword, certain highly decorated weapons of the first half of this century exist, but they are extremely rare; though the more simple specimens are to be found in fair numbers, a circumstance which happily frees us from having to rely too much on missal and effigy for our illustrations. However, the type should be familiar to the enthusiast, as many are to be seen in our National museums. The museum of the United Service Institute, contained in the Banqueting Hall, Whitehall, supplies us with a fine example in the beautiful sword of about 1320-40, recovered from the

GENERAL HISTORY A.D. 1200—1390.

Thames in 1739 when the building of the present Westminster Bridge was in progress. It is essentially a fighting sword, and in its original state must have been a fine enriched weapon. To-day, after its long immersion, it has only the engraved silver scabbard-mounts to tell the tale of its departed glories; on these are engraved arms, doubtless those of the owner (Fig. 161).

Of the early XIVth century swords in the Wallace Collection, No. 5,



FIG. 166. SWORD, PROBABLY SPANISH, FIRST HALF OF THE XIVTH CENTURY

Collection: Signor Osma of Madrid

a war sword with a stiff thrusting blade, is a fine and characteristically shaped weapon. The pommel is of the heavy wheel form, and the quillons droop slightly towards the blade, which is  $29\frac{1}{2}$  inches long and bears as an armourer's mark the letter T (Fig. 162). A sword bearing the same armourer's mark, but one inch longer in the blade, was formerly in the collection of the Baron de Cosson. Both swords were found in France, whilst a third sword of exactly the same type, though with a different mark upon

## EUROPEAN ARMOUR AND ARMS

the blade, is in the author's collection; this was likewise found in France (Fig. 163), which would seem to point to a French origin for the type of hilt generally. A second sword in the Wallace Collection (Fig. 164) No. 10, shows a somewhat different formation in the pommel, which is triangular. This sword is probably English. The blade is of flat lozenge section,  $1\frac{3}{8}$  inch wide at the hilt and 30 inches long. It has an armourer's mark inlaid in copper.

A highly satisfactory weapon, though of somewhat later date, is also in



FIG. 167. SWORD, PROBABLY ENGLISH,  
FIRST HALF OF THE XIVTH CENTURY

Found in Cannon Street  
Collection: Author



FIG. 168. SWORD, PROBABLY ENGLISH,  
FIRST HALF OF THE XIVTH CENTURY

Found in the Thames at Wandsworth  
Collection: Author

the Wallace Collection, No. 8 (Fig. 165). The proportions of the hilt are admirable, while its balance in the hand as a fighting weapon leaves nothing to be desired. The hilt has been completed by the addition of a modern grip. It has also been blackened and the blade brightened. The wheel pommel is largely proportioned, and, like the swords illustrated (Figs. 162 and 163), the quillons droop gently over the blade, which is of flattened diamond-shaped section, of rigid construction,  $2\frac{1}{2}$  inches wide at the hilt but tapering acutely to the point. We may take it that the sword is also of French make. It was formerly in the collection of the Compté de Nieuwerkerke.

GENERAL HISTORY A.D. 1200—1390

In the collection of Signor Osma, inherited from the Conde de Valencia de Don Juan, is a very splendid example of a Spanish war sword that dates



FIG. 169. SWORD, FIRST HALF OF THE XIVTH CENTURY, THE HILT PLATED WITH GOLD

Collection: the late M. Edmond Foulc, Paris

within the first half of the XIVth century (Fig. 166). The pommel is of wheel form and very flat, whilst the quillons are rectangular in section, almost straight, but widen towards the ends. They are of bronze, once gilt,

## EUROPEAN ARMOUR AND ARMS

and, like the pommel, cast with a lettered ornamentation. The pommel is further enriched by the addition of enamelled shields of arms appearing in the centre on either side. The blade is broad, with a wide accentuated groove on either side, and tapers gently towards the point; the grip is a restoration. There is the possibility that though the hilt is distinctly Spanish, the blade may be French, for we remember seeing two swords with blades of exactly similar section, both found in Southern France. We give illustrations of two hilts, not that they are in any way enriched examples, but because both are of London provenance, and so doubtless represent the ordinary weapon of the English knight of the first half of the XIVth century. The sword (Fig. 167) found in Cannon Street is curious, as the pommel is spheroidal and hollow, whilst the sword (Fig. 168) is unusually complete, possessing its original grip. It is of small proportions, made for a youth of twelve or fourteen. This sword was found in the Thames at Wandsworth.

The late M. Edmond Foule, the well-known Paris collector, possessed a very beautiful sword that in 1874 was discovered in the river Gué, near Velluire (Fig. 169). It passed into the hands of the landowner, on the death of whom it was purchased by the Count de Rochebrune, an enthusiastic armour collector. Many weapons were discovered when the river Gué was dredged some forty years ago, as at the period of the Hundred Years' War the surrounding country was held by the English and many fights took place near Velluire, the Gué being the only river that communicated lower Poitou with the Aunis. In our estimation the sword is possibly English workmanship of the first half of the XIVth century, for the shape of the quillons, largeness of the pommel, etc., are much in common with the London-found sword referred to in the United Service Museum (page 131, Fig. 161). The pommel and quillons are of iron, thickly gilt, while the grip is of bronze gilt. The blade, not having been preserved by the gilding, has suffered from rust oxidization. This defect apart, it can certainly be reckoned one of the most attractive enriched swords of its time extant. The blade is short, the section being a flattened lozenge. So fine is the quality, and so perfect is the preservation of the gilding, the pommel and quillons might almost be taken for pure gold. The grip is engraved with a duplicated diaper ornament of a XIVth century nature. In the centre of the pommel is a small shield of arms, deeply impressed with a punch.

Among the many wonderful relics preserved in the Treasury of the Cathedral of Prague to which we have referred (page 11, Fig. 13, and

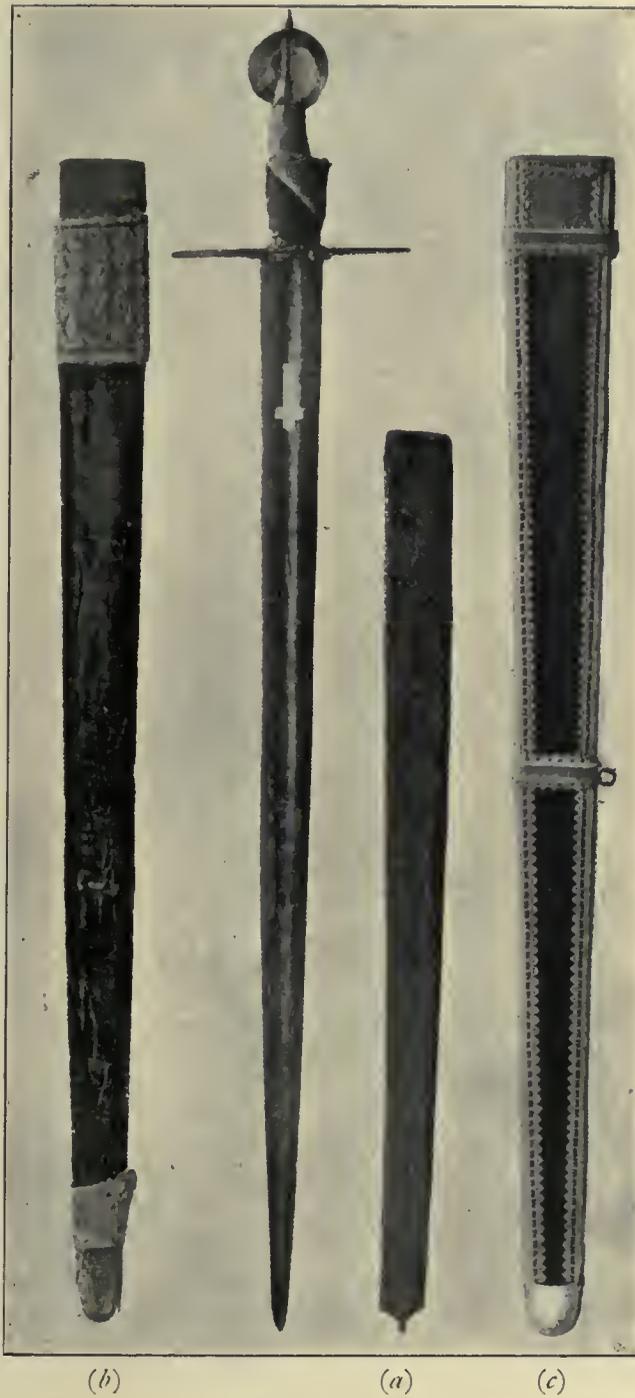


FIG. 170. SWORD KNOWN AS THAT OF ST. WENCESLAUS

The blade, XIIth or XIIIth century, the hilt early XIVth century; (a) scabbard of wood, covered with eel skin; (b) second scabbard of linden wood, covered with velvet; (c) third scabbard of wood, covered with crimson velvet, bound with silver  
Treasury of the Cathedral of Prague

## EUROPEAN ARMOUR AND ARMS

page 47, Fig. 55) there is the weapon known as "The Sword of Wenceslaus" (Fig. 170, *a, b, c*). We have previously recorded that St. Wenceslaus died in the year 935, so that, like most other swords accredited to great personages of the past, we are reluctantly obliged to disconnect this most typical early XIVth century weapon with his name unless we accept it as an early XIVth century substitute for the original sword that may once have existed. The length of the present sword from the point to the top of the pommel is 37 inches; the blade, straight and double-edged, is reputed to be of Oriental origin, and is forged from very elastic steel. It has a central groove, tapering towards the point, whilst near the hilt it has been pierced at a later date with a cruciform opening. The tang is drawn out in the usual manner, and passes through the quillons, grip, and pommel. The grip is wound with brown felt-like substance, covered with a strong yellow tissue, woven with a conventional foliage design. The quillons are straight, rounded at their edges, and tapering at either end. The pommel is of the wheel type, and fashioned of rock crystal, that portion of the tang of the blade which passes through it being wound with red silk. At the top of the pommel there is a five-leaf silver rosette, from which issues a small ring. Rock crystal and other hard stones were no very uncommon medium for sword pommels of the XIVth century, though now rarely met with. In the present writer's collection is a wheel pommel fashioned of rock crystal and of this period (Fig. 171, *c*). We are cognisant of other examples in private collections, including a wheel pommel of Egyptian porphyry. In the British Museum are two XIVth century wheel pommels carved from jasper (Fig. 171, *a, b*). The blade of the St. Wenceslaus sword might be as old as the XIIth or early part of the XIIIth century, but the hilt was probably substituted for one of earlier date in the early years of the XIVth century. To this sword there was formerly a golden scabbard, adorned with pearls and precious stones.<sup>1</sup> This to-day is non-existent, though the Cathedral Treasury still possesses three other scabbards fitted to the sword.

(*a*) A scabbard made of wood covered with eel skin, its lower end provided with a plain copper chape.

<sup>1</sup> In the inventory of the Cathedral Treasury for the year 1354 we read: "*gladius cum sollempni vagina de avro, gemmis et perlis facta, s. Wenceslai.*" In the inventory of the year 1355 we find: "*item gladius ipsius [i.e., s. Wenceslai] cum vagina avrea et gemmis et perlis.*" In the inventory of 1368 and 1372: "*item gladius ipsius cum vagina, quae in parte est fracta, avro, gemmis et perlis.*" The inventory of 1387 has "*item gladius ipsius cum vagina, quae in parte inferiori est fracta, gemmis et perlis ornata.*"

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(b) A scabbard made of linden wood (*genus tilia*), originally covered with dark brown leather, and now with red velvet, bound in two places with a golden-hued textile. The velvet retains the impression of the former metal



(a)

(b)



(c)

FIG. 171. THREE POMMELS OF WHEEL FORM

(a, b) Wheel pommel of jasper, late XIVth century (actual size). British Museum

(c) Wheel pommel of rock crystal (actual size). Late XIVth century. Collection: Author's

gilt mounts, which were the same as we see upon the scabbard (c) in which the sword is now kept.

(c) A scabbard made of some wood, covered with dark red silk velvet, with a silver lock and ferrule mount. The edge of the scabbard is decorated with silver mounts, chased with conventionally rendered fleur-de-lis ornaments. On the lock and ferrule mount are remnants of the former rings for sus-



FIG. 172. SWORD, MIDDLE OF  
XIVTH CENTURY

Found in lake Constance  
Collection: Sir E. Barry, Bart.



FIG. 174. SWORD, MIDDLE OF  
XIVTH CENTURY

J 10, Musée d'Artillerie, Paris



FIG. 173. SWORD, MIDDLE OF  
XIVTH CENTURY

Found in the Thames, London  
Collection: Soc. of Antiquaries

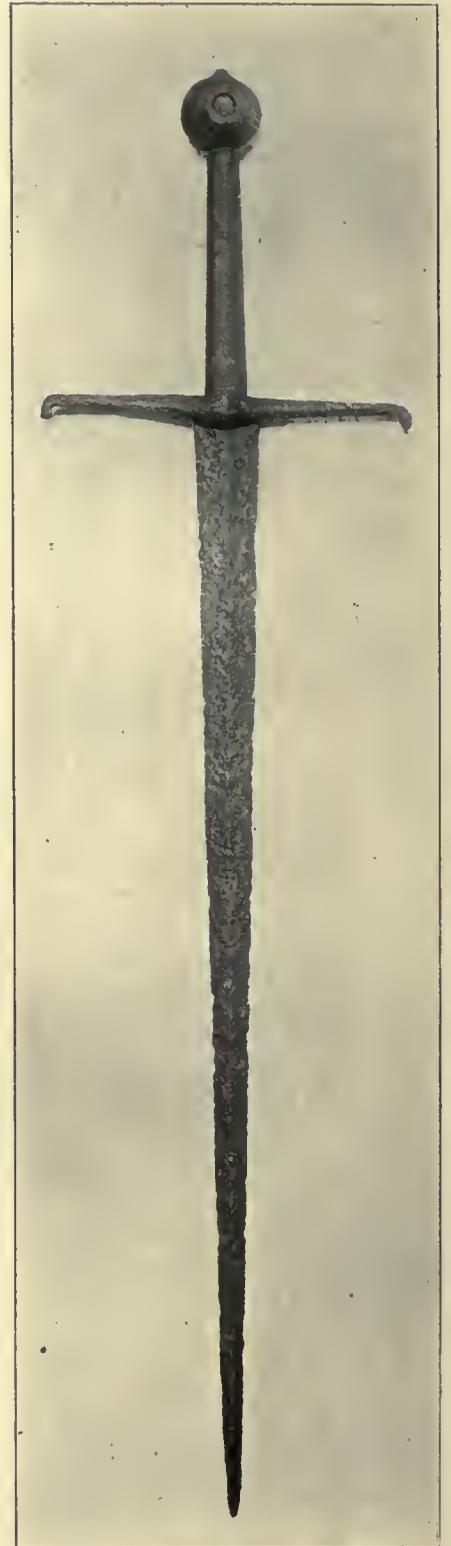
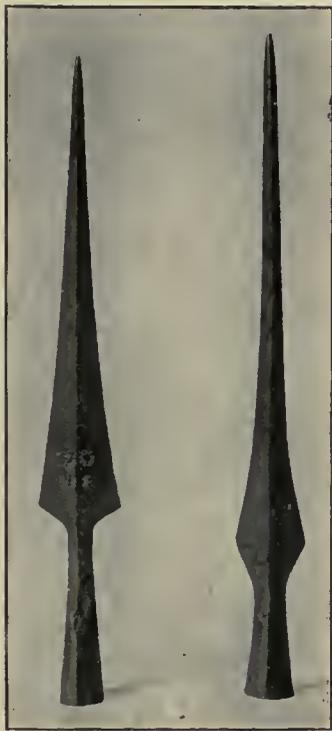


FIG. 175. SWORD, MIDDLE OF  
XIVTH CENTURY

Found in the North of France  
Collection: Baron de Cosson

pension, whilst a single ring for the same purpose is attached to a band encircling the scabbard about the centre.

Apart from the mid-XIVth century swords proportioned alone for use with one hand, there is a series of weapons gracefully fashioned as regards the construction of their hilts, but made on a larger scale. We may even



(a) (b)

FIG. 176. (a) A LANCE-HEAD (ITALIAN), EARLY XIVTH CENTURY; (b) A LANCE-HEAD (ITALIAN), MIDDLE OF THE XIVTH CENTURY

Both found in Northern Italy  
Collection: Author's



FIG. 177. THE BRASS OF SIR JOHN D'AUBERNOUN THE ELDER, ABOUT 1280

In Stoke d'Abernon Church, Surrey  
From Stothard's "Monumental Effigies"

include them within the category of the bastard sword, though, unlike that weapon, from the section of their blades they seem only serviceable for thrusting. We refer to a group of swords that date within the second half of the XIVth century, and must have continued in use until its close and after in a somewhat different form. A sword so proportioned is represented on the effigy of the Black Prince in the cathedral church of

## EUROPEAN ARMOUR AND ARMS

Canterbury. The family feature is the wheel pommel of great thickness; the long grip, the long straight quillons with a short right-angle drop at their extreme ends, and the comparatively narrow but very stiff blade of flattened diamond-shaped section.

Of this group of swords a beautiful and gracefully proportioned weapon is in the possession of Sir Edward Barry (Fig. 172). It is safe to assign its date to the middle of the XIVth century. The heavy wheel-shaped pommel with its built-up rivet block, the finely proportioned and eminently useful quillons, which are straight except for the slight droop at the extreme ends, show the characteristics to which we have referred. It was found in lake Constance. This sword is almost duplicated by one in the possession of the Society of Antiquaries in London (Fig. 173), although the latter is rather shorter. Both have blades of the same section, rigid and slender,



FIG. 178. SOLDIERS USING A CURIOUS WEAPON, PROBABLY THE GODENDAG

Referred to by Guiart. From an early XIVth century carved chest at New College, Oxford

adapted for thrusting. The Society of Antiquaries sword was recovered from the Thames at Westminster.

A very similar, though rather larger, weapon of this same family is in the Musée d'Artillerie, Paris, J 10 (Fig. 174), whilst another, found in the North of France, is in the collection of the Baron de Cosson (Fig. 175).

\* \* \*

Of the lance belonging to the first half of the XIVth century, a weapon of great importance to the knight, we can learn but a little from contemporary illustrations. It was still of spear-like form, with a plain shaft, having a head of simple but eminently useful shape.

We give an illustration of two heads found in Northern Italy (Fig. 176, *a*, *b*). The period of their production may safely be assigned to the XIVth century. They are accurately forged, one of them (*b*) bearing an armourer's mark of importance, though one impossible to recognize. The lance, to

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which the pennoncel of the esquire was added, could not, we think, have been a weapon of offence, but was merely a haft to which the standard of distinction was attached. The pennon, pennoncel, or pencil, as it was variously called, was made in the form of a small and narrow flag. It was the accredited emblem of the esquire. An esquire aspiring to knight-hood attached himself to a baron or some greater noble. On attaining the rank of Knight Bachelor he next looked forward to reaching that of Knight Banneret, or Baronet, whose military emblem on the lance was the pennon or paron of the knight shorn of its pointed ends and converted into a rectangular banner. The Knight Baronet was required to serve with a retinue of seventy-five men. In missals and contemporary illustrations their varying pennons are often seen; but we know of no effigy representing them, and are only acquainted with one brass on which the pennon is shown—that of Sir John d'Aubernoun the elder in Stoke d'Abernon Church, Surrey (Fig. 177).

Of the hafted weapon of the soldiery next to the ordinary spear, none can claim greater importance than the guisarme, mention of which is made frequently in the XIIIth and XIVth centuries. Derived, no doubt, from an implement of husbandry, its cutting qualities were found to be of the greatest utility to the foot soldier; for we find constant reference to the sharpening of the guisarmes. Its corrupted name, from *bisarme*, denotes its dual usage as a cutting and thrusting weapon. It was, however, a weapon of such death-dealing power that early in the XIIIth century an agitation against its use in legitimate warfare was actively supported. Of its early XIVth century form we can give no illustration, but of its late XVth century development many and various examples are known, and will be found illustrated in the chapter dealing with hafted weapons.

Guiart, the XIIIth century writer to whom we have several times referred, in his *Chronique Metrique*, gives a contemporaneous account of the battle of Courtrai in 1302, making allusions to a type of hafted weapon to which up to now we have not come across, as follows:

A granz bastons pesanz ferrez  
A un leur fer agu devant  
Vont ceux de France recevant  
Tiex bastons, qu'il portent en guerre  
Ont nom godendac en la terre  
Goden-dac, c'est bon jour à dire  
Qui en François le veut decrire.

Guiart, describing the merits of this weapon, the godendag, states that it could be used for striking like a club, or for stabbing. Planché, in his

## EUROPEAN ARMOUR AND ARMS

famous encyclopaedia, refers to it as the godendard, and likens it to the Austrian bardische. The writer of this, however, thinks we have to thank Mr. Charles ffoulkes for enlightening us as to the probable appearance of the godendag, for, in his description of a chest, now in New College, Oxford, he construes the carved front to represent incidents connected with the battle of Courtrai, to which Guiart refers. It is noticeable that a great many of the soldiers and knights are armed with a curious looking implement, which in reality would be some four feet high, of circular section, swelling in circumference towards the top end, into which was apparently inserted a short broad blade. Guiart says that the godendag should be grasped with both hands, and that the man to use it should draw aside from the ranks to get a good swing. Mr. ffoulkes' suggestion that the curious weapon carried by the soldiery represented on the chest front is the godendag referred to by Guiart, seems highly probable. In the fresco at Ghent many of the soldiers carry a very similar weapon, which seems to prove that it was a favourite weapon of the Flemings. A portion of the chest front we illustrate shows soldiers holding the weapon in question (Fig. 178).

The voulge, the bill, the fauchard, and many other hafted weapons were doubtless in their very earliest uses in these times; but we are very uncertain of the forms they then took, and we hesitate in giving illustrations of them at this early stage, for we are not in accord with the practice of constructing weapons from vague contemporary descriptions, and of labelling them with distinctive names unsupported by some reliable authority or evidence.

## CHAPTER V

CONTINUED GENERAL HISTORY OF ARMOUR AND ARMS

A.D. 1300—1400



AT the commencement of the XIVth century the fashion of adding plates to the chain mail for strengthening the defence at vulnerable spots had reached the stage at which the breastplate made its appearance. On arriving at this important landmark in the history of armour we are handicapped at the outset in our attempt to deal with this particular defence by the entire non-existence—as we believe—of any actual body armour of this period; so for our illustrations of such body armaments we have still to rely upon effigies, brasses, and contemporary illuminations. A detailed description, therefore, of the breastplate or plastron is impossible. That it was generally of slightly globose form we can only conjecture from the shape given to the close-fitting outer garment represented in some brasses and more particularly in effigies. That it was made of metal and fitted over the hauberk we may take as certain; but whether a backplate was worn with it to form a complete body defence is uncertain.

If we could picture accurately the fully caparisoned warrior in the early years of the first half of the XIVth century, his appearance would not—we believe—reach that high ideal which he is usually thought to approach. We cannot associate all the numerous thick defensive garments that he is known to have worn with the dignified bearing of a knight; on the contrary, they must have given him the aspect of a very much coddled-up gentleman. He had his counterpart in the Japanese nobleman of the *Ashikaga* period, who, when completely armoured in his quilted, gamboised and studded garments and interlaced plates of defence, would seem to the present-day critic of the human form a very unprepossessing example of symmetry.

Certainly the knight did not add to the elegance of his appearance by the addition of reinforcing plates to his original chain mail defence. These inserted plates would prevent the hauberk in some degree from clinging to the shape of the figure, and were in themselves at first of a crude make, not conforming to the lines of the limb, nor did they assist the smooth working of the joint which they protected. His dignity was not enhanced by the

## EUROPEAN ARMOUR AND ARMS

fact of his having the metal plates and protective garments (which were reinforced with metal, leather, or whalebone) covered with bright coloured material or even paint. Finally the fantastically hued surcoat, the ailettes

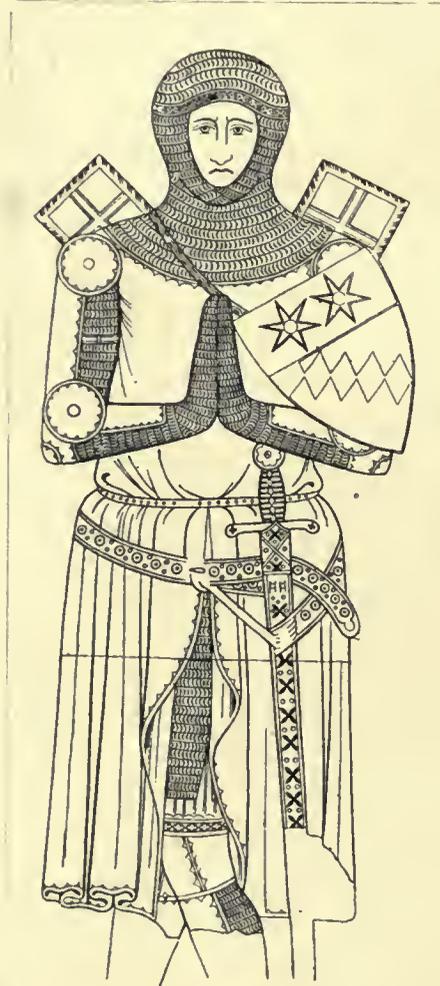


FIG. 179. FROM A BRASS IN GORLESTON CHURCH, SUFFOLK

Said to be a member of the Bacon family,  
about 1320  
From Stothard's "Monumental Effigies"



FIG. 180. FROM THE BRASS OF HUMBIER CORBEARE

In the Church of Awans, near  
Liège, about 1290

or neck defences—of which we shall speak presently—and the cresting of his head-piece all contributed to give him a bizarre appearance. Yet it is this very bizzarerie of his equipment that stimulates the interest of the enthusiast and student of armour. In it he traces the efforts that had been made

through years to evolve from practical experience a perfect defence, by placing reinforcements on this exposed limb or that vulnerable spot and by piling one defensive garment on another, until the time came when the lighter and more effective full plate armour took the place of the cumbersome harness of patchwork.

A brass in Gorleston Church, Suffolk, supposed to represent one of the Bacon family, about 1320 (Fig. 179), illustrates most clearly that which we wish to convey respecting the appearance of the knight of this period. The warrior is habited in a coif of mail, which we should imagine from its hemispherical form is placed on a steel cap, and a hauberk reaching nearly to the knee. Circular plates or palettes guard the inside of the arms at the elbow and at the *vif de l'harnois*, or exposed part near the arm-pits, while coudes or elbow-cops are visible in their earliest form: half or shell rerebraces and vambraces protect the exterior of the upper part of the arm and the forearm, while greaves and *genouillères* are also worn, of which latter the working is somewhat difficult to understand, for they completely encircle the knees, back and front. Over the armour is the loosely fitting long surcoat gathered in at the waist by a narrow strap; beneath the hauberk can be seen the gamboised hacketon; while the sword belt hangs loosely round the waist. On this brass we have a representation of the ailettes, those extraordinary additional protective plates standing high on the shoulders, which came into use about 1275, but fell out of fashion again in about 1325, after which date they were rarely seen. In this brass they are rectangular and of large proportions, and are shown, as on all the brasses on which they appear, as though lying flat against the shoulder blades, probably for the reason that the artist was unable to draw them effectively in perspective. Placed as shown on the brasses they could form no protection, but it is certain that their correct position was on the shoulder, and profile with the face so as to form a defence against a horizontal blow at the neck. For proof of this we have but to look at their position on the figure of a knight from an *aquamanile* in the collection of the late Signor Ressiman in the Bargello, Florence (Fig. 181). They were either fastened to the top of the arm, or possibly sometimes to a leather thong passing round the



FIG. 181. AILETTES IN THE CORRECT POSITION

From an *aquamanile*, middle of XIVth century  
Collection: the late Signor Ressiman, Bargello, Florence

## EUROPEAN ARMOUR AND ARMS

neck. The defence is similar, and in some cases remarkably so, to those plates found on Japanese armour and known as the *sode*. In the Church of Awans, a few miles from Liège, is a monument to Humbier Corbeare, erected about 1299, on which the ailettes are of the same size as the Japanese *sode*, and appear apparently worn in a precisely similar fashion (Fig. 180). The ailettes



FIG. 182. A BRASS IN MINSTER  
CHURCH, ISLE OF SHEPPEY,  
about 1330

From Stothard's "Monumental Effigies"

In form of  
Mullwood.



FIG. 183. THE BRASS OF SIR JOHN  
D'AUBERNOUN THE YOUNGER,  
IN STOKE D'ABERNON CHURCH  
about 1325

From Stothard's "Monumental Effigies"

seem to have taken various forms: sometimes they were circular, at other times shield-shaped, hexagonal, or even cruciform. By the comparison of various effigies we may conclude that their adoption upon the continent was more universal, and generally of larger proportions. They were sometimes blazoned with the armorial bearings of the wearer when their form allowed it. In the latter part of the XVth century and in the XVIth

century we find their counterpart in the upright guards which are occasionally fastened to the upper plate of the pauldrons, and which in the past were erroneously termed *passe-gardes*. We find evidence of the *ailette* being subjected to the richest decoration; for in the inventory of the effects of Piers Gavaston taken in 1313 among "*Autre divers garnementz des armes le dit pieres avesc les alettes garniz et freitez de perles.*"

Another excellent example of that puffed-out overdressed appearance lent to the military costume of the first half of the XIVth century by the multiplicity of garments worn one above the other is well defined on that brass of an unknown knight in Minster Church, Isle of Sheppey (Fig. 182).

We would here draw attention to another brass, that of Sir John d'Aubernoun the younger, about 1325, in Stoke d'Abernon Church, Surrey, which illustrates well the under defensive garments (Fig. 183) that we have mentioned as being worn one above the other. The head-piece is a *bascinet*, a helmet that we shall presently deal with in a separate chapter; in this case it is fluted, and has an ornamental attachment at the apex. Taking the place of the coif is the *camail* or mail tippet, fastened round the edge of the helmet, and hanging all round to form a protection for the neck. Although it is not clearly shown on this brass, the same method of securing the *camail* to the helmet was almost invariably used. Attached to the upper edge of the *camail* were plates, or a leather binding, pierced with holes through which passed the staples found round the edge of the helmet; a cord or leather thong was then threaded through the staples so holding the *camail* securely in position. The arm defences on the d'Aubernoun brass are very similar to those depicted on the Gorleston example; except that here we notice a complete *vambrace*, worn *under* the *hauberk* sleeve which terminates short of the wrist, and is not prolonged into a mitten gauntlet. The leg defences consist in *knee-cops*, which, being decorated, were probably of *cuir bouilli*, in greaves or *bambers* and in *sollerets*, the latter formed of five laminated plates over the mail. The outer garment is the *cyclas*, which made its appearance at this time, and was a variation of the earlier *surcoat*, being tighter fitting in the body, cut short in front and made to lace up at the side. From the shortness of the *cyclas* in front we are able to trace the three protective garments beneath. Immediately under the *cyclas* we see the *gambeson*, beneath that the *hauberk*, and again beneath that the *gamboised hacketon*. The knight is wearing prick spurs, although *rowels* had by this time come into use.

When we come to the middle years of the first half of the XIVth

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century we may consider that we are dealing with general military apparel at the most interesting period of its history, at least in England; for although the earlier mediaeval times make their distinct appeal to the enthusiast, the advent of the year 1345 possesses a deeper significance as inaugurating that real age of chivalry, the era of the Black Prince. To the student of armour the idea of this era conveys, needless to say, much



FIG. 184 (a). THE EFFIGY OF EDWARD, PRINCE OF WALES (THE BLACK PRINCE)  
In the cathedral church of Canterbury

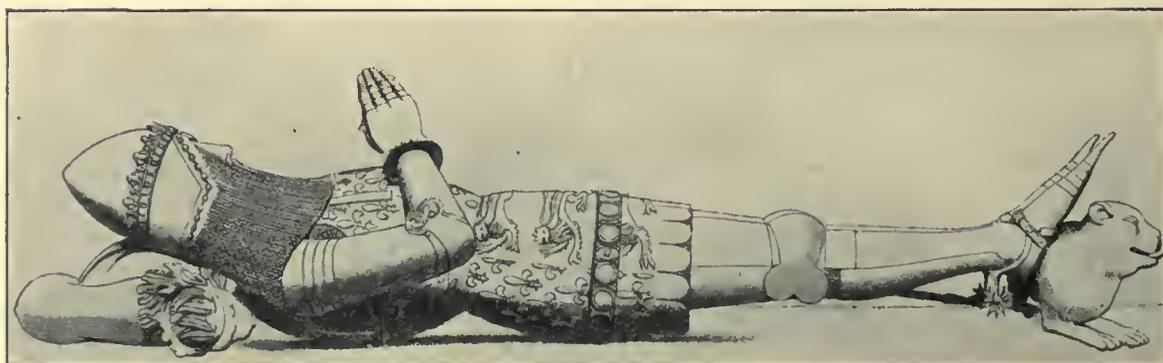


FIG. 184 (b). FROM THE EFFIGY OF EDWARD, PRINCE OF WALES (THE BLACK PRINCE)  
After Stothard's careful drawing of the effigy

more than the mere fact that this noble warrior graces the history of the time. It brings vividly to his mind's eye the picture of the youthful Prince at the memorable battle of Cressy, clad in the knightly harness which must have closely resembled that represented in his matchless effigy in the Cathedral Church of Canterbury. This harness, showing as it does the general character of the knight's equipage of the period, enables him to picture the battle-field and the methods employed in the fight. In fact, he can see the

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Prince and his warriors as living persons: they are not to him merely incorporeal characters on a page of history.

Without doubt this effigy, which is of copper gilt with enamel enrichments, truly represents Edward, Prince of Wales, the Black Prince, in his fighting harness, according to his will "all armed in steel for battle" (Fig. 184, *a*, *b*). It is supposed that it was set up in 1376, four years after his death, and thirty-four years after Cressy. The armour depicted, though complete in its parts, is not of an advanced form; the model from which it was taken was probably a harness worn by the Prince in the earlier days of his career.

Beneath the closely fitting surcoat can distinctly be seen the plastron of plate with its wide tace plates attached. The only form of decoration appearing upon the suit is on the small plates of the coudes or elbow guards, to which are applied or embossed double cinquefoil flowers; while the short cuffed gauntlets have only a simple row of rivets as decoration. The leg defences are full, but severely plain. The sollerets of plate are but a little longer than the foot itself, with acute points which curve outwards in an unusual manner. It is strange that, despite the very accurate modelling of the various parts of the suit, no straps, buckles, or hinges for fastening are represented. The bascinet helmet is visorless, with a large chain camail admirably represented. Beneath the Prince's head lies his helm; while attached to his girdle, which lacks the dagger, is his delicately fashioned, long and slender sword.

Many effigies of this period, executed in various mediums, are extant in this country, which are more elaborate and show greater variety in their armaments; but none, we venture to think, can compare with that of Edward of Woodstock. Certainly not one of XIVth century date survives in such

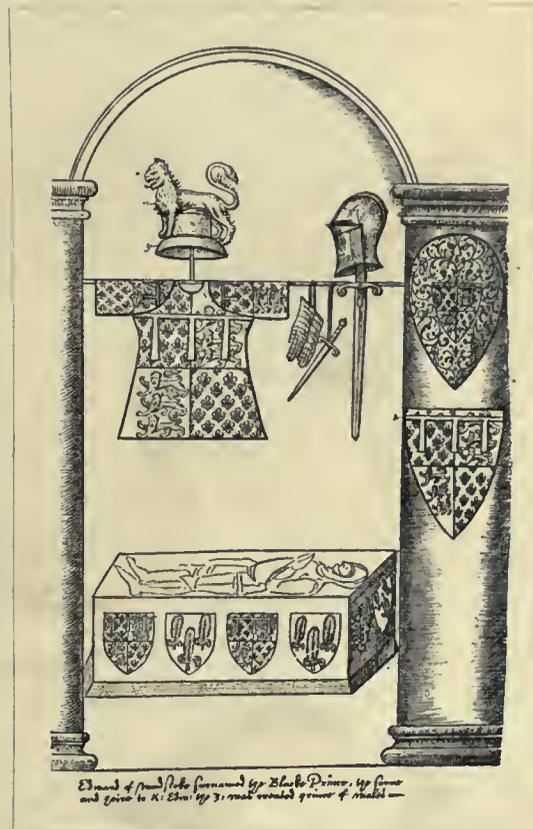


FIG. 185. LATE XVITH CENTURY DRAWING OF THE BLACK PRINCE'S TOMB AND ACHIEVEMENTS

From MS. 162, Society of Antiquaries, London

## EUROPEAN ARMOUR AND ARMS

completeness; for above the monument and tomb still hang the knight's actual achievements. We readily admit that above other knightly effigies must have hung such achievements, but with the exception of but a very few, to be counted on the fingers of one hand, and those of later date, all have now perished.

On the achievements of Edward, Prince of Wales, the Black Prince, much has been written; but the most scholarly article on the subject comes from the pen of Sir St. John Hope in the *Vetusta Monumenta* of the Society of Antiquaries, published May 31, 1894, and we beg to acknowledge our obligations to the author for the substance of the following notes. Hanging upon a beam above the tomb to-day may be



FIG. 186. PAVIS OR TARGET FORMERLY HUNG BY THE PRINCE'S TOMB

From Edward Bolton's "Elements of Armouries," 1610

seen the helm (Chapter IX), the gauntlets (Chapter XV), the surcoat (Fig. 187), the shield (Fig. 188), the crest (Chapter XIII), part of the sword-scabbard, and part of the sword-belt (Fig. 189; page 154). There is evidence that further achievements used at one time to exist in the form of another shield, the sword itself, and the dagger. In a drawing of the Prince's tomb and achievements included among the MSS. of the Society of Antiquaries (No. 162, fol. 33) there is a view of the tomb in Canterbury Cathedral as it appeared in the latter part of the XVIth century, where can be seen, hanging above the existing shield, a second shield of the Italian or kite-shaped form (Fig. 185). In the centre are painted the Prince's arms, with the silver label of three points. Around, likewise painted, are arrangements of scroll-work. This same shield is illustrated in Edward Bolton's "The Elements of Armouries" (Fig. 186), the earliest published notice of the achievements, a volume printed in London in 1610. The second shield, or pavis, is here illustrated as well as described, though it differs somewhat from its representation in the Society of Antiquaries' drawing, in that the lower extremity is rounded, and that the arms painted in the centre appear on a circular plain field; but as all the achievements in the Society of Antiquaries' drawing are so inaccurately represented, it is safer to rely on Bolton's illustration. Of the armaments that exist above the tomb, speculation is still rife as to whether they were the product of the funeral furnisher—sixteen weeks elapsed between the death of the Prince and his funeral, an ample time for their manufacture—or whether they were actual armaments of the time worn by a knight; for it was directed

in the Prince's will, that "two coursers covered with our arms and two men armed in our arms, and in our helmets, shall go before our said body." The present writer is inclined to combine the theories; for the surcoat, gauntlets, and shield all seem to have a funeral furnisher origin, while the helm strikes us as being a real head-piece. (We arrive at this conclusion by comparisons of which we will speak later.) The sword and dagger were possibly actual weapons. The gauntlets, though doubtless fashioned on existing models, are constructed of thin brass or latten, and would not therefore have been of



FIG. 187. THE SURCOAT OR JUPON

From the tomb of the Black Prince in the cathedral church of Canterbury



FIG. 188. THE SHIELD

From the tomb of the Black Prince in the cathedral church of Canterbury

the smallest service, and so cannot have been made to wear (see Chapter XV). The surcoat, from the fact that it possesses sleeves thickly quilted under the armpits and thereby made almost rigid, would appear also to have been fashioned for the occasion of the funeral pageant (Fig. 187). But since no other surcoat is in existence, with the exception of the example made up of figured damask, and perhaps also constructed for a funeral pageant, a relic once in the Cathedral of Chartres, and now in the Museum of that town, we have no means of ascertaining the form taken by those whose service was for actual wear.

Sir St. John Hope also points out that unlike most examples of XIVth

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century embroidery that have been preserved, which retain more or less the brightness of the gold thread, the fleur-de-lis and lions upon the Black Prince surcoat have evidently been worked in inferior gold thread, which has turned black. The shield (Fig. 188), a beautiful object in itself, is impracticable. Measuring  $28\frac{3}{4}$  inches in length by  $23\frac{1}{4}$  inches across the top, it is fashioned of some light wood joined down the centre, covered with white canvas which



FIG. 189. THE SWORD SHEATH AND PART OF THE BELT

From the tomb of the Black Prince in the cathedral church of Canterbury

in front was overlaid with gesso, which in its turn was covered with paper and finally with leather. The first and fourth quarters were then powdered with fleur-de-lis of embossed leather, and the second and third quarters were charged each with three lions *passant gardant*, or leopards as they were then called, also of embossed leather. The field was then punched all over with cruciform markings, originally painted red and blue alternately. Sir St. John Hope states that of the label of three points with which the Prince's arms were differenced there is not the slightest trace—and he is certain there never was one on this shield. The back of the shield is painted green, and, what is also a convincing proof of its purely decorative character, has no positive signs of ever having been fitted with enarmes or loops for the hand and arm. The portion of the sword sheath that survives (Fig. 189) is but the leather covering of what must have been a sheath of wood, as a few fragments of the latter are still to be seen. The leathern covering was originally painted red, with enrichments in the form of gilt latten studs with fanciful diamond-shaped heads, thirty-one of which remain; the locket and chape are also missing. It is a little difficult to determine the original length of the sheath, for only twenty-seven inches in all now remain. Around the fate of the sword itself a whole mass of legend has accumulated. In the drawing we have already referred to as being in the possession of the Society of Antiquaries, showing the Black Prince's tomb late in the XVIth or at the beginning of the XVIIth century, the sword is in position, as is also a dagger. The sword is straight and double-edged, with drooping quillons and twisted grip. In the Society of Antiquaries' drawing the formation of the pommel cannot be seen, as part of the helm covers it; but it appears to be a weapon drawn from the artist's

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imagination, being one of early XVIth century form. Edward Bolton in 1610 fails to mention the sword at all, though he speaks of the jupon and *two* shields (see pages 151 and 152, Figs. 185 and 186). Somner in 1640 makes no mention of the achievements. Francis Sandford, writing in 1677, speaks of the other armaments above the tomb, but omits to speak of the sword.

J. Dart, in his "History and Antiquities of the Cathedral Church of Canterbury," 1726, shows the sword scabbard hanging with the rest of the panoply; but he does not mention them in the letterpress. W. Gostling, in "A Walk in and about the City of Canterbury," 1744, says: "The sword itself is *said* to have been taken away by Oliver Cromwell"; while R. Gough, in his "Sepulchral Monuments, etc.," published in 1786, distinctly states that it *was* taken away by Cromwell. Stothard, in 1817, again uses the expression "is *said* to have been taken away," instead of the definite statement made by Gough. Within the recollection of the present writer, the wildest stories as to the whereabouts of the missing sword from the Black Prince's tomb have been in circulation, one being, that in the year 1842 it was discovered by a Scottish lawyer in the possession of a blacksmith close to Appleby. The blacksmith refused to sell it, but promised at his death to leave it to the Dean and Chapter of Canterbury. Either the mysterious blacksmith has never died, or the Scottish lawyer-antiquary invented the story of the sword; for, despite earnest enquiries, nothing further can be ascertained of either the sword, the lawyer, or the blacksmith. Another story of the Black Prince's sword evidences the most remarkable lack of observation on the part of those who were credited at the time with antiquarian knowledge. A sword with a waved blade and a typical hilt of the XVIIth century, now in the armoury of Windsor Castle, though formerly in the collection of King George IV at Carlton House was, in the inventory of that collection, described as having been the sword of the Black Prince, taken from Canterbury Cathedral. This extraordinary error was accepted as fact, and even as late as 1875 Mr. John Latham endorsed the foolish mistake by adding a note to the Windsor inventory that "there is no reason why this attribution should not be quite genuine." In 1896 Her Majesty Queen Victoria, prompted by the late Dean of Canterbury, allowed a copy of this weapon to be made, in order that it might be placed with the other achievements of the Black Prince over his tomb. However, thanks to the emphatic protest of Viscount Dillon and the late Sir Richard Holmes, who were consulted as to the age of the weapon, the consecration of this obvious error was fortunately prevented. The description of perhaps

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FIG. 190. FROM THE EFFIGY OF JOHN OF ELTHAM, EARL OF CORNWALL, WHO DIED IN 1334

From his monument in the chapel of St. Edmund, abbey church of Westminster. After Stothard

the previous century. He is armed with a finely proportioned sword which has a large flattened octagonal pommel that is also duplicated upon his

the most interesting of all the Black Prince's achievements, his helm, will be found in Chapter IX, described among those of early date with which we are acquainted.

To continue our review of the complete knightly apparel well into the XIVth century, we will allude briefly to certain effigies made famous by Stothard's very accurate and complete work, noting the remarkable points in each.

John of Eltham, Earl of Cornwall (Fig. 190). This effigy in the Chapel of St. Edmund in the abbey church of Westminster shows us the second son of Edward II, who was born at the Palace, Eltham, Kent, 1316, and died at Berwick upon Tweed in 1334. He is armed in all points, having gauntlets and sollerets of plate, although, curiously enough, to the latter are attached prick-spurs of an early type. Upon his head is a bascinet surrounded by a ducal coronet. The strange zigzag covering applied to the fastening of the camail to the bascinet is most interesting. A beautifully modelled sword of large proportion hangs at his left side.

Sir Roger de Kerdiston (Fig. 191). His effigy is in Reepham Church, Norfolk. He died in 1337 in the eleventh year of the reign of King Edward III. In fashion his armour approaches that of the Black Prince. It appears, indeed, almost as advanced, save for the type of the *genouillères*, which is early and reminiscent of

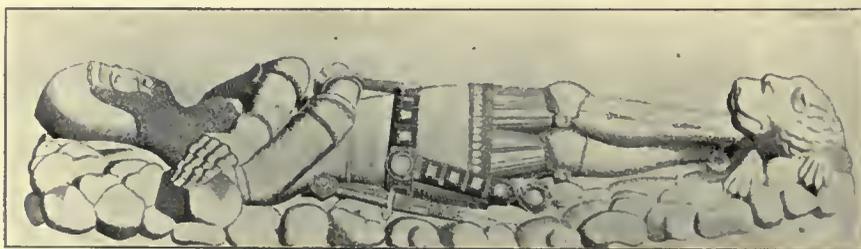


FIG. 191. FROM THE EFFIGY OF SIR ROGER DE KERDISTON WHO DIED IN 1337

Reepham Church, Norfolk. After Stothard

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dagger. His bascinet helmet is simple and carefully modelled, though somewhat low in the skull-piece. The thong attaching the camail continues across the forehead.

The brass of an unknown knight of the latter half of the XIVth century in Ingham Church, Norfolk (Fig. 192) supplies us with the representation of a body defence fashioned of some medium in addition to that of metal. On

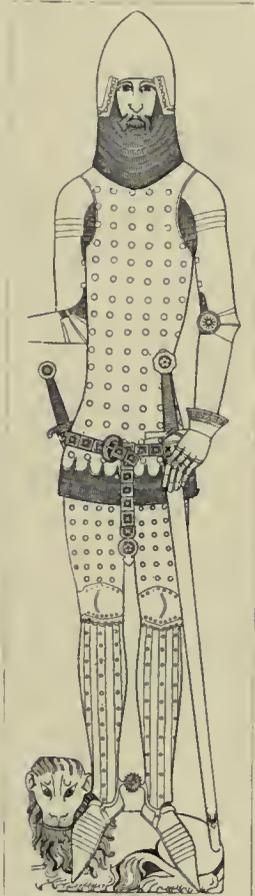


FIG. 192. FROM A BRASS OF  
AN UNKNOWN KNIGHT  
Ingham Church, Norfolk. After Stothard



FIG. 193. FROM AN EFFIGY OF  
AN UNKNOWN KNIGHT  
Abbey church of Tewkesbury. After  
Stothard

this brass the armour, with the exception of the brassards, has a surface covered with studs, the probable basis of the defence being either thin metal or *cuir-bouilli*. It may be supposed that such a defence had a layer of velvet or cloth between the studs and foundation plate, or that the field was painted and gilt. The covering of the surface with studs was possibly intended as an extra defence; though they would seem to be of little use against a lance or sword thrust. They would, however, be serviceable in keeping flat on

## EUROPEAN ARMOUR AND ARMS

the hard substance beneath whatever material covering was used, and they would also protect it from being rubbed or torn from its fastenings round the edge. It is also plain that these studs were an ornamental addition to



FIG. 194. EDWARD III AND THE BLACK PRINCE

From an initial letter on the grant of the Duchy of Aquitaine by Edward III to the Black Prince. British Museum

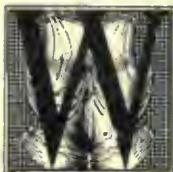
the coloured velvet or paint. If the textile surface were also quilted it would constitute an extra defence to the metal or *cuir-bouilli*; but it is conceivable that a thick quilted garment made of very stout material would form quite a fair defence in itself, especially against a cutting blow. It will be noticed

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that on the Ingham brass the cuisses amply cover the thighs. They were possibly of leather, reinforced with round-headed rivets placed at regular intervals about an inch from one another. A similar defence has been adopted for the surcoat; but the rivets are larger and are a greater distance apart, and in this case the leather groundwork must have been more pliable. The surcoat is worn over a full hauberk of chain mail. The solidity of the jambs is quite apparent from the rigid manner in which they are represented at their extreme base, where the space between their lower edge and the top of the solleret is clearly filled in with chain mail. The knee-cops are of somewhat early form; and judged from the fact that their borders are outlined with a close row of small hemispherically headed rivets, would seem to be covered with some material probably in keeping with the rest of the harness, applied much in the same manner as on that portion of a mid-XIVth century gauntlet which was presented to the British Museum by the late Richard Zschille (see Chapter XV). This fragment, as can be determined by examination, was originally covered with some textile material. Around its border, and securing the material to the iron foundation plate are such rivets as are seen on the Ingham knee-plates. There is in the National Bavarian Museum, of Munich, a breastplate with a skirt of steel much of the same appearance as this textile covered armour of the XIVth century: it is wholly overlaid with red velvet, and adorned with gilt brass nails. This particular breastplate, and the wonderful leg defences in the Riggs Collection, similarly covered with stuff (canvas, supplemented with silk?) date within the early years of the XVth. century, and are unique in their rarity. Other notable instances of the studded and ribbed mid-XIVth century defence similar to that seen on the Ingham brass are the cuisses depicted on an unknown effigy in the Abbey Church, Tewkesbury (Fig. 193), those shown on the effigy of Sir Humphry Littlebury in Holbeach Church, Lincolnshire, and a curious and very late form represented on the fine effigy of Sir Guy Bryan also in the Abbey Church, Tewkesbury, where some studded material appears to be the substance of the vambraces. The initial letter of the Grant of the Duchy of Aquitaine by Edward III to the Black Prince (Fig. 194) shows both father and son clad in the ordinary plate armour of the time, with the exception of their cuisse plates which are clearly defined as being of some other material enriched or reinforced with gilt metal studs.

## CHAPTER VI

CONTINUED GENERAL HISTORY OF ARMOUR, A.D. 1400—1500



WITH the advent of the XVth century our subject becomes more complicated, and proportionately more difficult to deal with. Many and various types of defensive and offensive armour and weapons crowd one upon the other, all of which should be alluded to. As in the case of the preceding century we look to the monumental effigies as the principal source from which to draw our illustrations of the body armour; for it is not until we are in the second half of the century that we can show a reproduction of an actual and homogeneous suit of armour of the time.

Very little difference can be noted in the development of plate armour between the years 1390 and 1410; but towards the termination of the first quarter of the century we note certain additional leg, foot, arm and hand defences, as shown in the effigy of Michael de la Pole, Earl of Suffolk (about 1415) in Wingfield Church, Suffolk (Fig. 195). This valiant knight died at the siege of Harfleur, belonging to that flower of English chivalry which followed the redoubtable Henry V and his "Band of Brothers" on that memorable day. In his effigy the armour, although very complete, is of the simplest possible kind and entirely free from decoration. Upon the head is a bascinet with the double laminated gorget, as in the case of the Musée d'Artillerie example (see Chapter VIII). Around the skull-piece is the orle, which may possibly cover the rivet hole by which the visor was attached; for there are no visible means for its attachment to the skull-piece. It can with fair certainty be claimed that the breastplate is slightly globose and has deep taces attached to it; but neither is actually visible, as they are covered with a surcoat. The arm defences consist in simple espalliers of five plates, almost identical with those seen upon the suit in the Wallace Collection (Chapter XXIV), though the latter are a hundred years later in date. The elbow-cops of three plates are again of the simplest construction, and are almost the counterpart of an example that is now in the collection of Dr. Bashford Dean (Fig. 196). The rere and vambraces, more particularly the former, are of considerable length, and almost tubular. The gauntlets are

GENERAL HISTORY A.D. 1400—1500

short and slightly belled in the cuffs. Each cuff is composed of two lames. There are flattened gadlings upon the knuckle and finger joints. The leg



FIG. 195. FROM THE EFFIGY OF MICHAEL DE LA POLE, EARL OF SUFFOLK, WHO DIED 1415 Wingfield Church, Suffolk. After Stothard

defences, though very complete, are carried out in the extreme simplicity of the rest of the armour. They, however, show cuisses of great length, and the last plate of the *genouillère* is of unusual depth, extending a third of the way down the jamb, as in the manner of the earlier Missaglia suits (page 177, Fig. 212). The solerets are pointed, and composed of five deep plates very characteristic of their period, but non-existent in any actual specimen handed down to us. No rivets, hinges, or straps appear on this effigy, which fact, together with the armour's simplicity and entire lack of ornamentation, leads us to the supposition that these details were originally painted upon the effigy. The Earl is represented unarmed and resting his head upon a tilting helm of a type that is familiar, but not to be found amongst such helms as are extant. We have described this effigy as being wholly representative of a full fighting suit of its period, for we are still bound to declare that nothing of its epoch exists in actual armour save certain head-pieces and some fragmentary body plates.

In the case of the next effigy, that of Ralph Nevill, Earl of Westmorland, an effigy executed about 1425 (Fig. 197), in Staindrop Church, Durham, we make an advance of some years. This knight was also one of those who accompanied Henry V into France. He survived the field of Agincourt and lived under Henry VI. Although the Nevill effigy is apparently of ten years later date than the one just described, in some details it appears more primitive, for instance, in the formation of the *genouillères* and the leg-pieces generally. The gauntlets, too, have the short bell-shaped cuffs so characteristic of the



FIG. 196. RIGHT ELBOW-COP EARLY XVTH CENTURY

Collection: Dr. Bashford Dean, New York

## EUROPEAN ARMOUR AND ARMS

armour of the last quarter of the XIVth century. But above all the bascinet is particularly of XIVth century type; for although the border

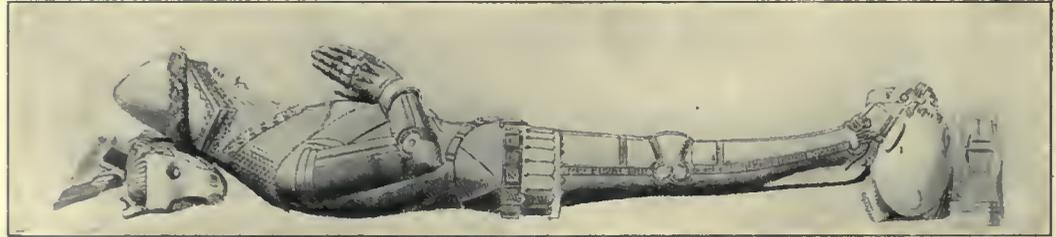


FIG. 197. FROM THE EFFIGY OF RALPH NEVILL, EARL OF WESTMORLAND, ABOUT 1425  
Staindrop Church, Durham. After Stothard

is richly decorated and the skull-piece is encircled by an orle of the greatest magnificence, it still retains the camail of chain mail, which in this case, however, would appear to might be imagined that by first quarter of the XVth to the bascinet would have favour of the standard of well fashioned was the camail must have been very trying. armour takes the form of a line of some applied material, lets appear kite-shaped gads are represented on the top the lambrequined edge of the lower edge of a hauberk the bascinet is high, though the forehead appears the com- The sword is missing, as is thongs are represented by The helm on which the earl lar in form to that above the abbey church of West-

We next give an illustration of an effigy in Dennington Church, Suffolk, attributed to Sir Robert Grushill,



be covered with leather. It this time—the end of the century—the camail attached been entirely abandoned in plates; for no matter how mail, the drag upon the head The chief decoration on the single but ornamental border probably brass. On the gauntlings, and the finger-nails of the finger plates. Beneath the surcoat can also be seen of mail. The skull-piece of not acutely pointed. Above commencement of an inscription. also the dagger; but the which they were attached. rests his head is very similar in form to that above the tomb of Henry V in the minster (Chapter XIII). tration of an effigy in Dennington Church, Suffolk, attributed to Sir Robert Grushill, but is now believed to be that

FIG. 198. FROM THE EFFIGY NOW BELIEVED TO BE WILLIAM PHILIP, LORD BARDOLF,  
ABOUT 1430

Dennington Church, Suffolk. After Stothard

## GENERAL HISTORY A.D. 1400—1500

of William Philip, Lord Bardolf—an effigy executed about 1430 (Fig. 198). We have furnished details of his sword later in this work (Chapter XVII); for it closely resembles an existing specimen, of which we are able to show a photograph. The armour in which this knight is represented is entirely complete, and for a suit of English fashion is most advanced. Indeed, if an actual arm-piece of such a suit were shown we should hardly hesitate to place it quite towards the closing years of the XVth century. The espalliers are of the simplest, and the elbow cops, with heart-shaped corrugated plates to protect the bend of the arm, are of almost Maximilian fashion. The gauntlets appear to be fully protective, the fingers being detached, and the cuffs, though of ample length, having the most modified form. The head-piece is a very advanced bascinet, in fact the “great” bascinet with a central keel ridge, almost resembling an armet skull, around which a massive jewelled orle is fixed. The working of the bevor of plate as represented in the effigy is perhaps a little difficult to construe; for it is wrapped below in a large protective buff, the gorget plate of which extends well over the top of the breastplate. This latter is of the very simplest form, having a slight central ridge, as seen in actual breastplates of the XVIIth century. A skirt or base of seven deep tace plates completes the defence of the loins. To the lowest plate are attached curious oblong rectangular tace-tuilles, partly encircling the legs, descending three-quarter way down the cuisses. To-day they would certainly be called tuilles; but Mr. Stothard alluded to them under the name of “pance,” “bark,” or “barde preu.” These plates, together with the great length of the tace plates, would render it an impossibility for their wearer to sit a horse—yet the knight wears spurs. Placed half way up the skirt is the *ceinture noble*, to which on the right is attached the dagger. The leg defences make no deviation from the fashion of their period. The knee-cops, however, are very flat; while from the bottom plate of the *genouillères* hangs a Vandyked lambrequin of some material, though it may have formerly been painted to resemble chain mail. The palettes are elongated shield-shaped plates trebly grooved. About the neck is his collar of the SS and around the left leg the Garter.

Occupying a position quite apart from that of any of our English effigies is the famous monument of Richard Beauchamp, Earl of Warwick, in St. Mary's Church, Warwick. Here we see that famous nobleman “accomplished according to patterns.” Stothard made four drawings of this beautiful effigy, three of which he etched himself in a spirit truly worthy of so fine a subject. Of these we give reproductions, also a photograph of the effigy

## EUROPEAN ARMOUR AND ARMS

(Figs. 199, *a, b, c, d, e*). On comparing this Beauchamp armour with that to be seen on other contemporary effigies, many differences become apparent, not only in details, but—what is more important still—in the general style and character of the harness. The details of a suit may have been suggested by the armourer who made it, or by the knight for whose wear it was designed; but it is more especially by variations in general physiognomy that the works of separate schools or countries can be recognized. The Earl of Warwick died in 1439, and the contract for the tomb is dated 1453. John Hewitt, feeling it difficult to imagine that so advanced a type of armour had been made in England in the Earl's lifetime, says: "The effigy appears to have been made about 1454, the *fashion of that period being adopted for the armour.*" Now the contract between the Earl's executors and John Essex, marbler, William Austin, citizen and founder, of London, and Thomas Stevyns, coppersmith, expressly states that the effigy shall be made *according to patterns*. It is therefore somewhat difficult to suppose that the Earl's executors, having all his armour at their disposal, should have sought and procured a new model. However, thanks to the Baron de Cosson's intimate practical knowledge of Italian armaments, much of the difficulty disappears. The fact was that Hewitt had little opportunity of actually handling the very few mid-XVth century suits that exist, and so was unable in this connection to speak with anything like the authority of the Baron de Cosson, who, fully acquainted as he is with the very advanced forms and developments introduced into their work by Milanese armourers about the time of the death of the Earl, has no hesitation whatever in believing that even as early as 1438 the Milanese armour had attained to the perfection shown in the Warwick effigy. As a matter of fact the Earl of Warwick had travelled in Lombardy in his younger years, and so enjoyed an opportunity of appreciating the great excellence of the armour of Milan. It was in 1408 that he passed through the Duchy on his way to the Holy Land, and was challenged by Sir Pandulph Malacet, probably a Pandolfo Malatesta, to a duel at Verona. Petrajolo da Missaglia, the earliest member of the family with whom we are acquainted, was then the Ducal armourer. What is more probable than the supposition that once acquainted with the excellence of Milanese harness, the Earl should have continued to order armour from Milan to the end of his life? It can be shown that great noblemen in other countries were doing so at the same epoch. We are therefore fairly justified in concluding that the splendid harness which the Earl is represented as wearing in the effigy

## GENERAL HISTORY A.D. 1400—1500

ciated with Venice in the third quarter of the XVth century. If this fresco is to be taken as evidence it does not seem possible to dispose of the Baron de Cosson's belief that the Earl of Warwick could well have possessed and worn the armour represented on his effigy. Of the probable Milanese origin of this suit we can bring forward additional evidence, for which also



FIG. 201. ST. GEORGE  
By Andrea Mantegna  
Accademia, Venice



FIG. 202. A MOUNTED MAN-AT-ARMS  
By Albrecht Dürer, dated 1498. Inscribed above:  
"This was the manner of arming in former  
days." Albertina, Vienna

we have to thank the Baron de Cosson. This evidence is derived from a study of Andrea Mantegna's beautiful picture of St. George in the Accademia of Venice (Fig. 201), a picture in which it will be noted that the famous North Italian painter has armed his warrior-saint in a harness of plate which is almost line for line and plate for plate identical with the armour depicted in the effigy of the Earl of Warwick.

## EUROPEAN ARMOUR AND ARMS

This appears to be conclusive proof that the suit of armour so minutely copied by William Austin was of North Italian make. Mantegna was born in 1431, so it is just possible that he may have painted his picture about the same time when the London brass-founder was modelling a similar suit for the Beauchamp Chapel.

It is not recorded at what period of his life Mantegna painted this St. George, but it has the appearance of being in his earlier style.

Even if Mantegna painted the suit at a later date, he may have had an old Missaglia suit in his studio to work from; for there are many instances of artists of those times depicting suits which were by no means of the latest fashion. Dürer, for instance, when in 1498 he made that beautiful study of a mounted man-at-arms which is now in the Albertina at Vienna, was careful to write on the top of it: "This was the manner of arming in former days" (Fig. 202).

Compare the photograph of Mantegna's St. George with Stothard's drawing of the effigy of the Earl. The suits are constructionally the same and are certainly made from the designs of the same armourer, the only difference to be noticed being in the placing of the decorative channelling. On the effigy the placate of the breastplate has two simple wide grooves; in the picture it is plain. In the picture the lance rest is on the foundation plate of the breastplate; in the effigy the holes for its attachment are on the placate. In the effigy again the cuisses are represented as though decorated with duplicated chevron ridges, while in the picture they are plain. The tuilles in the picture meet closely together; in the effigy they show a space between them. The sollerets in the picture are multilamed; on the effigy they are represented with large pointed toe-caps. The Earl in his effigy rests his head upon his crested helm, which in itself is a good deal like that of Italian origin illustrated in Chapter XIII. So accurate was Stothard in the drawings which he made of this splendid effigy, that after ascertaining that the heavy figure of latten lay loose upon the altar tomb he succeeded with assistance in turning it on its face and was thus enabled to record all the detail on the back of the armour, which was found to be as carefully and accurately represented as that on the front, showing all the parts of the suit, its shape and fastenings, with instructive minuteness. Stothard's actual description of the armour represented on the effigy is so admirable that we give it here in its entirety, only deleting the matter that does not bear directly upon this particular effigy.

"The first garment in view, especially evident (Figs. 199, *b*, *d*), is

## EUROPEAN ARMOUR AND ARMS

was of Milanese workmanship of about 1430, and that it was in all probability taken from a harness that might even have been the work of Petrajolo da Missaglia, the founder of that famous family of armourers.

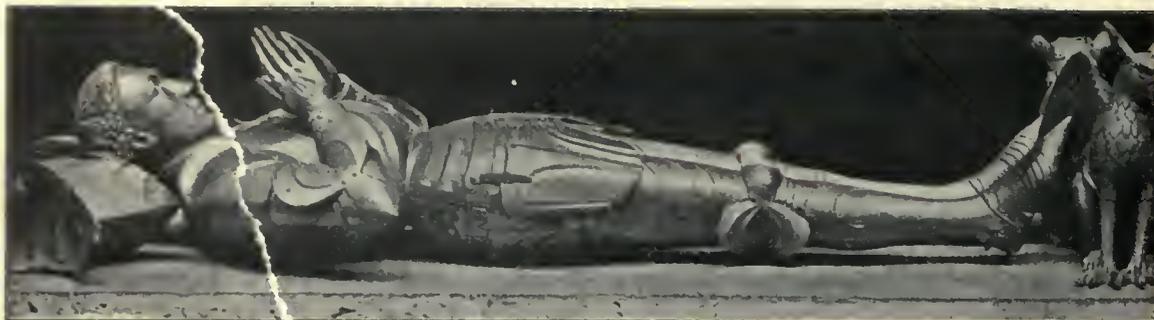
In their recently published work on the manuscript in the British Museum styled the "Pageant of the Birth, Life and Death of Richard Beauchamp, Earl of Warwick, K.G.," Viscount Dillon and Sir John Hope accept the Baron de Cosson theory as to the Italian make and fashion of



FIG. 200. FROM A FRESCO IN ROME

Traditionally assigned to Tommaso Guidi (Masaccio) but according to modern critics more likely to have been painted by Masolino da Panicale. It is certainly a work produced between 1420 and 1425

the armour the Earl is represented wearing in his effigy, but maintain that no such suit of complete plate armour could have been in existence as early as the period of his death in 1439. Yet we can show an even more advanced type of Italian armour, almost of the Tomaso da Missaglia school, represented in a fresco in Rome which is known to have been painted between the years 1420 and 1425, and which, though formerly reckoned the work of Masaccio, is now ascribed to Masolino (Fig. 200). Look at the large pauldrons *à la façon d'Italie*, the armet head-piece, and the salade worn by the warrior on the extreme right, usually asso-



(a)



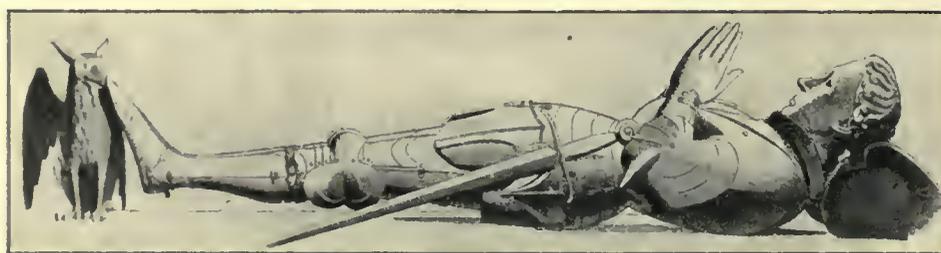
(b)



(c)



(d)



(e)

FIG. 199. THE EFFIGY OF RICHARD BEAUCHAMP, EARL OF WARWICK, ABOUT 1440  
St. Mary's Church, Warwick

(a) From a photograph of the effigy  
(b) Front view; (c) Right profile; (d) Back view; (e) Left profile. After Stothard

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the gambeson or 'hauscement for the Bode.' In Fig. 199, *d*, extending from the skirt of mail to the edge of the jambard, are seen the hosen; uncovered at that part with armour, because, when the knight was mounted, this portion of his person would not be in view of an assailant, and his seat in his saddle would be far more secure and commodious. The body is not armed, as seen on other effigies, with the 'pair of plates,' each of a single piece: the inflexibility of that defence has been mitigated by dividing the breast and back plates each into two parts. The pieces nearest the neck are overlapped by the others; they slide within them at the movement of the body, but can never slip out of their socket on account of the straps which prescribe the limits of their play. In lieu of the strap seen at the throat of the Beauchamp effigy, there is sometimes a rivet coming from the under-plate, and passing through an oblong aperture in the upper, by which means the one could slide over the other to the extent of the oblong orifice, while the round head which terminated the rivet prevented the two plates from coming asunder. Similar rivet-heads above and below the knees of the Warwick figure seem to show that the same contrivance was adopted in that portion of the suit. The plates of the Earl's suit have hinges on the left side, and straps with buckles on the right. Holes near the right pauldron show where a gusset of plate has been fixed. The similar holes below have held the lance-rest. The taces turn on hinges at the left side, and are buckled on the right. Fig. 199, *d*, shows the lowest tace suspended by straps; this was probably to give the knight greater freedom in the saddle. Two large tuilles hang loosely over the cuissards; smaller ones defend the hips; both are ridged. A skirt of chain-mail appears beneath the tasses, encircling the body.

"The pauldron of the right arm differs somewhat from that of the left. Both are formed of two principal parts; the one sweeping over the whole shoulder, and the other overlying that piece in front only. The front plates are ridged in diagonal lines, and their upper edges are recurved, admirable contrivances to turn aside the thrust of lance or glaive. In the back view of the suit (Fig. 199, *d*) is shown the method of fastening the upper part of the backplate to the lower.

"The leg armour appears to consist, for each limb, of three distinct parts, first, the solleret, then the jamb, lastly, the portion beginning at the lowest under-kneeplate and ending with the cuisse. The sollerets open on a hinge inside the foot, and are fastened by straps on the outside: they are overlapped by the jamps, and the successive plates of which they

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are composed are restricted in their play by a strip of leather nailed under the ridge of the foot; the nail-head of each plate being concealed from view by the overlapping of the plate succeeding. The spurs are fastened to the sollerets by rivets, an innovation of this half-century, originating about 1420. The jambs enclose the whole leg, from the ankle to the top of the calf, turning on hinges outside, buckled within. The knee-cops and cuisses seem to have all their pieces locked together. The cuisses have lateral additional plates attached to the sides by hinges. The knee-cops have pointed plates above and below them, which appear to move upon sliding rivets. On the left leg is the Garter. The pommel of the sword is ornamented with one of the Earl's 'beasts,' a 'Musled Beare.' The dagger is lost."

It is a strange circumstance that, apart from the Warwick effigy, which, as we think, was copied directly from a fine Italian harness, none of the existing suits of armour of the latter part of the XVth century present quite the characteristics which we note on our English effigies of contemporary date. We are therefore forced to come to one of two conclusions; either that the sculptors of the effigies took certain liberties with the armour they had to represent, which is possible, despite the fact that much of the detail is so very accurately rendered; or that there exists no actual English-made armour of that time, and that that which we see to-day is essentially Continental, and so a trifle divergent from that shown on our English monuments. It is only in the bascinet head-pieces of the latter part of the XIVth and of the commencement of the XVth century that we find an actual resemblance between the sculptured example and the real thing. The continental sculpture, we find, affords us a very much more accurate record; that is to say, certain illustrations of effigies could be given, for the details of the armaments of which we can find exact counterparts in extant armour. Take, for instance, that fine bas-relief representing a knight wearing armour in the fashion of about 1470-80, in the church of Salsburg (Fig. 203). Almost their counterpart, as regards proportion and formation of its plates, can be seen in that fine composed suit formerly in the Hefner Alteneck collection (Fig. 204), or the carved statuette of German origin which was at one time in the collection of the late Mr. T. B. Hardy (Fig. 204A).

Or, again, take the case of the justly famous statue by Peter Vischer from the tomb of Count Otto IV of Henneberg in the Church of Römhild, Saxe Meiningen, commissioned in 1487 (Fig. 205): the armour represented on this statue is almost duplicated in the equestrian harness in the Wallace Collection (Chapter XXII). The resemblance may be seen in the forma-

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tion of the coudes, in the modelling of the sollerets, in the construction of the gauntlets, salade head-piece, and taces. It cannot be said that, as in the case of the armour depicted on our own effigies, these representations of armour are something like the armour that was worn; they are the exact counterpart of the actual armour with no artistic licence allowed. So, too,



FIG. 203. BAS-RELIEF OF A KNIGHT WEARING  
ARMOUR IN THE FASHION OF ABOUT 1470-80  
Church of Salsburg



FIG. 204. COMPOSITE SUIT OF ARMOUR  
OF ABOUT 1470-80  
Collection: the late Herr Hefner Alteneck

in Italy, this close approximation of the sculptured examples to the armour worn at the time is very noticeable in the effigies, especially in those cases where the classic Renaissance has not influenced the sculptor. For instance, on the beautiful tomb of General Gattamelata in the Church of St. Antony of Padua (Fig. 206) the knight is sculptured as though he were actually dressed in complete existing armour—armour which might well be actually modelled from, and not merely resemble, the fine Missaglia harness in the

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Royal Turin Armoury (page 182, Fig. 215). As a matter of fact, however, the Gattamelata monument was erected between 1456 and 1459; whereas we dare not assign the Turin suit to a date earlier than 1465, another proof of the difficulties which attend any attempt to fix an absolute date to an armament,



FIG. 204A. WOODEN STATUETTE OF GERMAN ORIGIN, LATE XVII CENTURY

Collection: the late T. B. Hardy, Esq.



FIG. 205. STATUE OF COUNT OTTO IV OF HENNEBERG, THIRD QUARTER OF XVTH CENTURY

By Peter Vischer. In the church of Römhild

unless, of course, such an attempt can be based on some extant historical record.

The armour shown by the effigy of Robert Lord Hungerford on his monument in the nave of the cathedral church of Salisbury (Fig. 207) bears a certain similarity to that represented on the Warwick figure, but with variations. Here it will be noted that the suit in question was of English make



FIG. 206. FROM THE EFFIGY OF GENERAL GATTAMELATA ABOUT 1456-1459  
Church of St. Antony, Padua



FIG. 207. FROM THE EFFIGY OF LORD HUNGERFORD,  
ABOUT 1455

Cathedral church of  
Salisbury. After  
Stothard

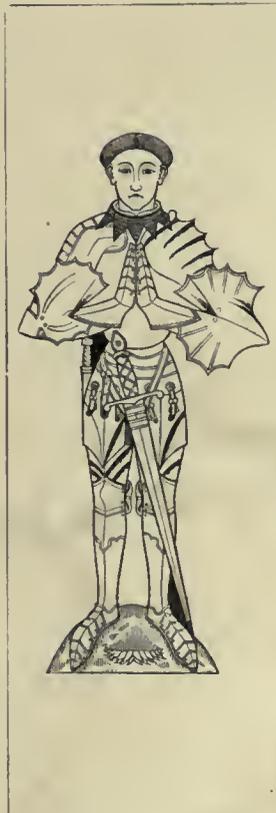


FIG. 208. FROM THE BRASS OF RICHARD QUARTREMAYNES,  
ESQRE.

Thame Church, Ox-  
fordshire

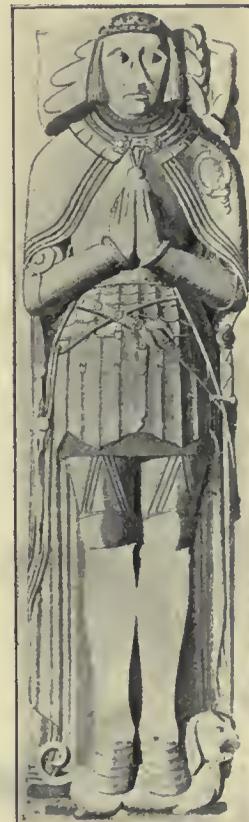


FIG. 209. FROM THE EFFIGY OF JOHN TALBOT, EARL OF SHREWSBURY, WHO DIED IN  
1453

His armour is in the fashion of the closing years of the XVth century. Whitchurch, Shropshire. After Stothard

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rather than Italian, which may account for a certain clumsiness in general outline, especially noticeable in the leg defences. A curious addition of four developed tuille tassets can be seen attached to the last plate of the taces; for in addition to the customary pair in front, there is one on either side and two behind, the last, to all appearance, most incommodiously placed for riding. The arm defences are very similar to those shown on the Warwick effigy, each differing in formation, the right being constructed for freer movement of the sword arm. The elbow cops are most usefully fashioned, and are as largely developed as any we have come across in sculptural form; however, they fail to approach that exaggerated form as they appear on the brass of Richard Quartremayns, Esqre., in Thame Church, Oxfordshire, where an ungainly butterfly-like effect has been obtained (Fig. 208). This brass has been considered as being about 1460, while as Robert Lord Hungerford died in 1455 his effigy would be of about the same date. In the case of this effigy can be noted a very late instance of the use of the *ceinture noble* jewelled and enamelled, to which is attached the remains of a rondel dagger; the sword is missing. The effigy of Lord Hungerford is life size, good in design, and highly finished in its details.

A strangely-equipped effigy from Whitchurch, Shropshire, furnishes us with our next picture, a picture of the redoubtable fighter, John Talbot, Earl of Shrewsbury, who died in 1453, but whose armament follows the fashion of almost the closing years of the XVth century (Fig. 209). Stothard very wisely remarks on the curiously late habiliments of this famous warrior:

“It is so common a practice to refer every unappropriated monument to the great man of the locality, that too much faith must not be given to every tale of this kind that calls itself ‘tradition.’ At the same time there is no reason why an effigy in the costume of Henry VII’s time may not have been devoted to the hero who fell in the days of Henry VI. We may be allowed here to remind the reader of that very curious instance afforded by the will of Thomas Earl of Derby, in 1504. This instrument directs the construction of ‘personages’ to represent four generations: ‘personages of myself and both my wives, for a perpetual remembrance to be prayed for’; ‘personages which I have caused to be made for my father and mother, my grandfather and my great-grandfather’ (‘Test. Vet.’ p. 458).”

It may be urged that we should have relegated the note on the armament of this Earl of Shrewsbury to a later chapter in this work; but we place it next after our account of the Hungerford effigy as showing that a suit of

armour almost of the Maximilian order occasionally retained the fashion of an earlier generation, in evidence of which consider the large and full tassets or tuilles hanging from the bottom plate of the tace. Two show close together in the front, two are to be seen at the sides, and two were doubtless intended to be at the back; but any indications of this last mentioned pair are concealed beneath the ample robe of the garter with which the knight is wrapt. The hauberk of chain mail is still worn in its entirety beneath the plate, showing in a gorget around the neck and extending beneath the tassets. The cuisses



FIG. 210. LEFT CUISSE AND KNEE-COP, LATE XVTH CENTURY  
Collection: The Lady Zouche

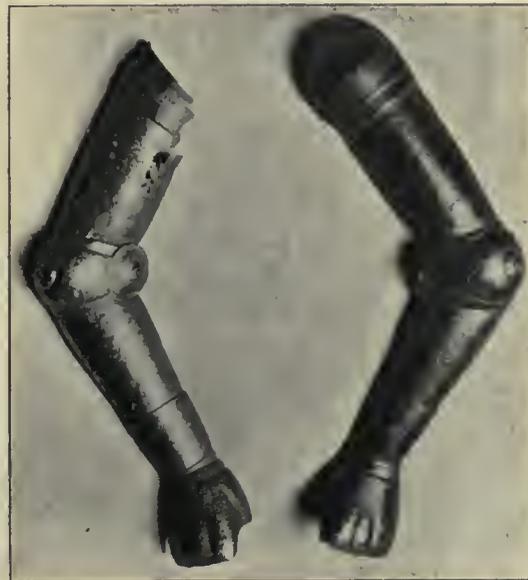


FIG. 211. PAIR OF BRASSARDS, LATE XVTH CENTURY  
Nos. 19 and 24, Wallace Collection

are fluted much in the manner that can be seen upon a fine though later example in the Lady Zouche's collection at Parham (Fig. 210). The jambs are broken away; but the sollerets with their rounded toe plates, associated with the opening years of the XVth century, are plainly shown. The arm defences are complete, and have elbow cops very much like those seen on an interesting pair of brassards in the Wallace Collection, Nos. 19 and 24 (Fig. 211), which have a circular convex plate to protect the bend of the arm. The effigy of the Earl is armed with a cruciform-hilted sword, and an interesting dagger of the kidney type suspended by a cord. His head rests on a tilting helm.

We can now turn from effigies, and give for the first time an illus-

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tration taken from an actual suit of armour, a harness which, as far as we know, ranks as the oldest complete suit of European armour extant (Fig. 212). Up to the period dealt with we have given representations of head-pieces, of individual armaments, and of weapons of many centuries of anterior date; and it is only with the arrival of the opening years of the second half of the XVth century that we are in a position to place before our readers a real complete suit of armour, plate belonging to plate throughout. The suit referred to is the magnificent suit preserved in the Imperial Armoury of Vienna, a suit made for Frederick the Victorious, Count Palatine of the Rhine, by the most famous of all Milanese armourers, Tomaso da Missaglia, son of Petrajolo. The suit came, with much of the other armour now at Vienna, from the Castle of Ambras, near Innsbruck; but by some curious oversight it is not mentioned in the oldest of the inventories of that collection, the inventory made between 1583 and 1596. It is, however, faithfully represented in Jacob von Schrenck's large engraved work, *Armamentarium Heroicum*, etc. (begun in 1582 and published in 1601), fol. xx. Frederick the Victorious, *Der Böse Fritz*, for whom this suit of armour was made, was the son of Ludwig the Bearded, and was born in 1425. He was made Prince Elector in 1449, was a prominent heroic figure in the unhappy Bavarian-Brandenburg feud of 1450-62, and died in 1476. Allowance then being made for its fashion, we may take it that this suit is the work of Tomaso da Missaglia, produced about 1450-60. In many places are impressed upon it the mark employed with slight variation by the Missaglia family from the days of the founder, Petrajolo, to those of his grandson Antonio.

It is the plainest of suits without decoration of any kind whatsoever. The helmet is the "great" bascinet. The breastplate is of stalwart proportions, having that curious heaviness in its lower globoseness that we have noted only in the work of Tomaso of that family. It is in the fashion of the time, composed of the main plate and of the superimposed placate. The taces are of five lames, which from their great depth lend to this part of the suit almost the appearance of a skirt or tonnelet. To the lowest tace-plate are attached the tuille-like tassets. But the most remarkable features of this archaic suit are the smaller subsidiary tuilles which are suspended at the sides and back from the lowest plate of the *garde de rein*. Although this feature can be seen in the effigies of the second quarter of the XVth century, notably on the few effigies we have just described, we know of only three extant suits which possess them; the suit under discussion, a suit in the Royal Armoury of Turin, and the suit in the Museum of Berne. The arm



FIG. 212. COMPLETE SUIT OF ARMOUR THE WORK OF TOMASO DA MISSAGLIA ABOUT 1450-60  
AND MADE FOR FREDERICK THE VICTORIOUS, COUNT PALATINE OF THE RHINE  
Imperial Armoury, Vienna. [The oldest extant complete suit]

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defences show no great peculiarity, save that the elbow cop on the sword arm is more massive than that of the left. The espallier pauldrons are most simply constructed. The gauntlets are long-cuffed with the metacarpal plates of mitten form. The leg armour, although most beautifully modelled, is reduced to the utmost simplicity, possessing, however, that hinged plate to either cuisse extending round the *fascia lata* muscles. The pointed plate of the knee-cop that extends over the front of the jambs is remarkably long. As in the case of nearly all Italian suits, no sollerets of plate were worn, but a defence of chain mail. Placed with the suit now, and actually belonging to it, are a curious pair of shoe-stirrups into which the mail covered feet fitted. The stirrups extend into long laminated toe-pieces *à la poulaine*. The whole of this superb suit is intact, and, as we have already stated, is all, save the bascinet helmet, the work of one armourer. It is in a marvellous state of preservation, though now, we are inclined to think, somewhat over-polished.

Belonging practically to the same period and doubtless fashioned by the same hand is a most interesting suit in the Museum at Berne in which, however, the larger pauldron defences for the shoulders are made *à la façon d'Italie*. There are four tuilles to this suit, besides a broad tace-shaped piece hung from the back of the *garde de rein* (Fig. 213). The bascinet helmet upon the suit is very similar to that on the Vienna harness, and like it does not bear an Italian mark, but that of some German armourer, a clover leaf which the late Herr Wendelin Boeheim stated was used by one of the Treytz of Mülhan. The head-piece, however, was actually made to fit the suit, and is probably one which replaced another form of helmet possibly considered by the wearer a less reliable piece of defensive armour. A close analogue to this replacement of one nationality of helmet by another is to be seen in the Tower of London, where the suit (described in Chapter XXIII, vol. iii) made for King Henry VIII for fighting on foot possesses a beautiful Milanese bascinet head-piece, while the body armour itself is perhaps the work of the King's own alamaine armourers.

The past history of the Berne suit is unknown.

We have no wish to weary our readers by duplicated descriptions of suits of the same nature; but owing to the excessive rarity of a war harness that can rightfully claim a date within the early years of the second half of the XVth century, we feel ourselves bound to describe and to illustrate the only other two of the four more or less complete suits of this period with which we are personally acquainted. The third is the suit now exhibited



FIG. 213. SUIT OF ARMOUR, IN ALL PROBABILITY THE WORK OF TOMASO DA  
MISSAGLIA, MADE ABOUT 1460  
Museum, Berne, Switzerland

I

AA

## EUROPEAN ARMOUR AND ARMS

in the Metropolitan Museum of New York, a complete though associated Italian harness of about 1460-70 which, before passing into the collection of the Duc de Dino, was in that of both Carrand and Spitzer (Fig. 214). The suit has stamped on most of its parts a Gothic letter S, interlaced with the "lance" of the cross; but on the left jamb and on the back part of the two pauldrons can be found traces of other stamps, which also have an Italian character. The head-piece is a *salade* of German shape, with a lifting visor beneath which, attached to the breastplate, is the *bevor*. This *salade* is not the original helmet of this suit. As in the case of the other two harnesses we have described, the front part of the breastplate is composed of two pieces, the foundation plate and the *placate*. The back plate is also laminated. The pauldrons are very large, *à la façon d'Italie*, the one on the right being hollowed so as to couch the lance. The arm guards are provided with *coudes* of exaggerated proportions so as to protect the *saignée*, the cavity of the arm and forearm. The gauntlets of mitten form reach to the elbows. The most remarkable plates of this armour are those which compose its skirt or *tonnelet*, a part known in France as the *grande braconnière*: this skirt, which covers the thighs, consists of six plates. The leg defences are Italian in shape and terminate at the ankle. The *sollerets*, composed of plates which accompany this armour, were added by Mr. Spitzer; the description of the armour made by Carrand senior proves that when it belonged to him the *sollerets* were not in existence. The very large proportions of the *coudes*, which are equally big at either elbow, and the long skirt of plates, might suggest that this suit was made especially for combat on foot in the *champ clos*; but the hollow at the *espalier* on the right and the presence of a lance-rest fixed to the right side of the breastplate indicate that it was also designed for equestrian service. We may mention that it is possible that this harness underwent modifications even during the period it was in use. Similar instances of modification are not rare in the case of authentic suits.

The fourth and last harness, or rather portion of a harness, of the Tomaso da Missaglia type with which we are acquainted is on the suit numbered B 19 in the Royal Armoury, Turin (Fig. 215). The associated leg defences are obviously of XVIth-century date. Many years have passed since we had the opportunity of examining this armour; but it was then our impression that the dark blue-black colour of its present surface was not original, but the result of a later re-blueing. The history of this particular harness is interesting, and some reliance, it appears, might be placed on its traditional provenance. It was presented in 1834 by the Board of Management of the Hospital of

Vercelli to King Carlo Alberto, who placed it in the Royal Collection. According to the tradition preserved in that hospital, this suit belonged to a knight who was present at the battle of Pavia in 1525. He, along with one of his comrades-in-arms, was wounded in the battle and, both being taken to the Hospital of Vercelli, died there, leaving their suits behind them. Although an early Missaglia harness of about 1460, it is quite possible that it was in use at the battle of Pavia. There is, however, one discordant note in this otherwise very interesting tradition. The other harness given to King Carlo at the same time is a production of the third quarter of the XVIth century (B 39 of the official catalogue), and so could not have possibly figured in the battle of Pavia, a circumstance which somewhat disturbs our belief in the traditional history of the first suit, for both are credited with the same provenance. The head-piece on this Missaglia suit is a fine armet *à rouelle* with a reinforcing buffe; while the plain globose breast-plate is of those robust proportions which armour students have learnt to associate with the works of Tomaso da Missaglia. The taces and *garde de rein* are short and have attached in front small tuille tassets with rounded ends, these being duplicated by similar but smaller plates depending from the sides and *garde de rein*. The pauldrons are very large with the upright shoulder guards. They are, however, dissimilar in form, the right being cut away to allow free passage



FIG. 214. SUIT OF ARMOUR

It bears upon several of its plates a Milanese armorer's mark. Comprehensively about 1460-70. Metropolitan Museum of New York

## EUROPEAN ARMOUR AND ARMS



FIG. 215. PORTION OF A SUIT OF ARMOUR OF THE TOMASO DA MISSAGLIA TYPE, ABOUT 1460-70

B 19, Royal Armoury, Turin

for the couching of the lance; but the cavity thus formed could at pleasure be guarded by an additional detached plate, seen in the illustration and fastened by a small turning pin.

The elbow cops and mitten gauntlets are very similar to those we have noted on the Dino suit.

Having considered those four Italian harnesses, three at least of which we may accept as belonging to about 1450-60, and which are in all probability the work of Tomaso da Missaglia, we will give an illustration of that most knightly suit to be seen in the Imperial Armoury of Vienna, a suit accredited to the famous Robert of San Severino of Naples, and Count of Gajazzo, 1418-87 (Fig. 216). This gracefully formed caparison is the work of Tomaso's son, Antonio da Missaglia, or to give him the honour of his full name, Antonio da Missaglia da Ella. Indeed, save for the salade helmet that has at some early date been associated with it, it is a true suit in every sense of the word, plate made for plate, and is to be regarded as one harmonious whole, a suit of armour made entirely by one hand. In several places are stamped the armourer's mark made use of to the best of our belief by Antonio da Missaglia. How cleverly has the son followed his father's constructional methods in making this suit, save that he has given its outline a more pleasing turn! Mark the graceful elegance of the waist line, the exquisite modelling of the jambs, and the fine proportions of the suit as a whole. There is nothing



FIG. 216. SUIT OF ARMOUR REPUTED TO HAVE BEEN MADE FOR ROBERT OF SAN SEVERINO OF NAPLES AND COUNT OF GAJAZZO (1418-87)

The work of Antonio da Missaglia, about 1470  
Imperial Armoury, Vienna



FIG. 217. SUIT OF ARMOUR MADE PROBABLY FOR FERDINAND V, KING OF ARAGON (1453-1516)

The work of Antonio da Missaglia, about 1480  
Imperial Armoury, Vienna

## EUROPEAN ARMOUR AND ARMS

unusual in its formation, the differentiated pauldrons *à la façon d'Italie* are perhaps modified a little in front, but they are enormous at the back, almost overlapping each other. The only point of special interest which we notice is the strange extension of the placate of the breastplate to the top turnover of the under plate. It is also remarkable how mobile are



FIG. 218. ST. MICHAEL, BY PIETRO VANNUCCI (PERUGINO)  
Showing the solleret with the half plate protection  
National Gallery

the joints, which work on riveted straps instead of on slotted rivets. There is now no gorget plate to the suit, but this was doubtless of chain mail; indeed, in the illustration in Jacob von Schrenck's work to which we have referred, the suit is shown so completed and with sollerets in the same medium. We have failed to discover why the suit is described as belonging to the San Severino family. All that can be said is that it is attributed to

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that family in the oldest inventories, that it is obviously Milanese in provenance, and that it follows the fashion in armour which prevailed during the period (about 1470-80) in which Robert of San Severino was doing his hardest fighting: so in the circumstances it is not unreasonable to accept the story told concerning its original ownership.

In the Vienna Armoury is also shown a suit of armour which is very much on the lines of that just described, and which, in all probability, is also the work of Antonio da Missaglia. It is recorded, and probably correctly, as having been worn by Ferdinand V, the catholic king of Aragon, 1453-1516. We think it right to illustrate it, because though it greatly resembles the harness of San Severino, it furnishes a few interesting points of divergence (Fig. 217). Made for a man of small stature it presents certain clumsily proportioned defences which, while affording very complete protection, make it unattractive from the armouër-artist's point of view. The head-piece is an armet with a strapped on buffe; straps at the side also assist to attach the placate to the main breastplate. The differentiated pauldrons are unimportant plates in front, but at the back are so developed as almost to overlap. The defences of the feet are those demi-sollerets made of plates, which protect only the upper and instep portion of the foot; while the toes and remainder of the feet depend upon a defence of chain mail. This is a type of solleret often depicted in Italian pictures of the time, as, for instance, in the beautiful figure of St. Michael by Pietro Vannucci in the National Gallery (Fig. 218); but in actual existence it is only known to the present writer on this one suit. The decoration of the Ferdinand harness is unusual for one of the period. It consists in rivets attaching circular outside washers, etched and gilt; these border the tuille tassets and are found about the suit generally. We would assign this suit to a date between 1480 and 1490, or just before Ferdinand's successful conquest of Granada.

## CHAPTER VII

CONTINUED GENERAL HISTORY OF ARMOUR, A.D. 1400—1500



HAVING alluded to the six Italian suits that we think are the earliest existing harnesses known, let us consider the representation of these Italian suits in contemporary pictorial art. In the convent of Saint Apollonia, Florence, there is a series of fresco paintings, the work of Andrea del Castagno. They are the portraits of celebrated men painted about 1430 for the Villa Pandolfini at Legnaia, including Farinata degli Uberti and Pippo Spano. The armaments of the latter two are splendidly and accurately drawn, and in their harness a very distinct Missaglia-like influence can be traced, an influence more primitive than that which marks the work of even Tomaso (Figs. 219 and 220). Could the suits of armour represented in these portraits be such as were made by Tomaso's father, Petrajolo? Note the exaggerated left pauldron, with an enormous rondel attached to it; this is similarly depicted in the Bedford missal where Henry V is represented being armed by his esquires (Fig. 221). Observe, too, in the second of the two figures that extraordinary formation of the *genouillères* in which the large side wings are continued round the back bend of the leg. In the National Gallery the picture of St. George by Pisano Pisanello (Fig. 222), painted in 1438, shows this very extraordinary feature in knee defence accurately represented on the almost back view of the right leg upon which the saint rests. Here is shown the *genouillère* plate completely encircling the leg. It is, of course, impossible to speak definitely; but from the very accurate painting of the left *genouillère* it would appear to be of different construction; for viewed as it is in direct profile, the extremely sharp outline of the knee-wing certainly lends to it no appearance of being drawn out and round at its hindermost edge to meet the corresponding inside plate of the knee-plate. Almost the only other instance of this formation is to be seen on the brass of Sir Thomas Grene in Green's Norton Church, Northamptonshire, A.D. 1462 (Fig. 223). Other portions of the armour on Pisano's St. George are worthy

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of the closest scrutiny. Note especially the gigantic pauldrons with their rectangular forms covering the shoulder blades, composed apparently of only three plates, below the lower edge of which appears the largely circumfranced sleeve of the chain mail shirt. Even on these great pauldrons, which are placed over the full pleated surcoat, there is on the left side



FIG. 219. FROM A FRESCO IN THE CONVENT OF SAN APOLLONIA, FLORENCE  
Showing the portrait of Farinata degli Uberti in Milanese armour of early XVth century fashion



FIG. 220. FROM A FRESCO IN THE CONVENT OF SAN APOLLONIA, FLORENCE  
Showing a portrait of Pippo Spano in Milanese armour of early XVth century fashion

attached an additional grand garde. To our modern eyes the head-piece, a huge-brimmed straw hat, lends a touch of humour to the otherwise dignified appearance of the saint.

Although not painted until 1505 what could more closely resemble the Berne suit (Fig. 213, page 179) than the armour of St. Francis or Nicholas, in the picture, "The Virgin and Child between two Saints," by dei Zaganelli,

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called Francesco da Cotignola, in the Brera of Milan (Fig. 224)? All the peculiarities of this suit are rendered, the heaviness of the breastplate, the great size of the placate, the quaint little lance-rest placed so high up on the plate, the exact formation of the tuille tassets. Only one feature is missing in the Berne suit, and that is the grandly formed wings of



FIG. 221. KING HENRY V BEING ARMED  
From the Bedford Missal, British Museum

the *genouillères*. These, we think, have at some later date been altered, at which time the lowest plate of the *genouillère* would seem to have been removed. This plate was doubtless either pointed, as in the case of the Vienna suit, or of a form to which could be attached a small fringe of mail as represented in the Cotignola picture, a most common affectation in late XVth century armour, especially that of Italy. We say affectation, for it can have

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served no utilitarian purpose. It would appear that the Brera picture is signed and dated 1505. Cotignola preferred to paint this old suit instead of a new one, probably because it formed part of the furniture or decoration of his studio.

Representations of the massive plain utilitarian suits of the Missaglia school, suits almost cumbersome in their appearance yet belonging to the



FIG. 222. ST. GEORGE  
From a picture by Pisano Pisanello, painted in 1438  
National Gallery

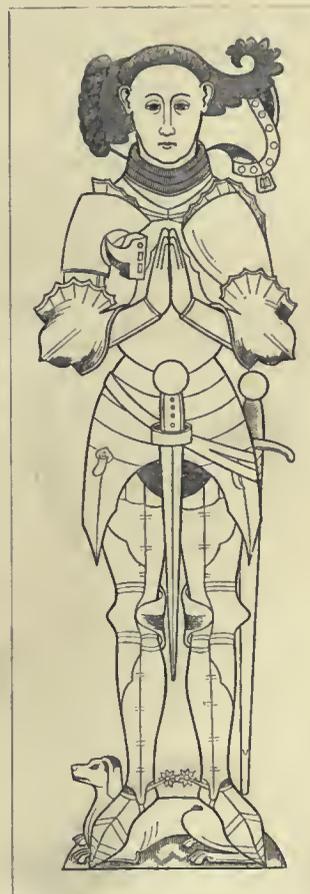


FIG. 223. FROM THE BRASS OF  
SIR THOMAS GRENE OF 1462  
Green's Norton church, North-  
amptonshire

great period of Italian art, are a conspicuous feature of certain Italian pictures, drawings, and sculptures. In such a harness Frederico da Montefeltro figures three times to our knowledge. He is first to be seen in Justus of Ghent's picture, now in the Barberini Palace (Fig. 225), clad in complete armour and in robes of State, wearing the collar of the Golden Fleece. Seated in a chair of state, immersed in a book of the Gospels, he is caparisoned in a plain suit of fighting armour. About his left leg is the

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Garter, sent him by King Henry VII of England. Girt on the same side is his clearly rendered sword; while also on his dexter side, on the top step of the throne, is his accurately painted head-piece—an armet with its rein-



FIG. 224. ST. FRANCIS OR  
ST. NICHOLAS

From a picture by dei Zaganelli dated 1505. Showing Milanese armour made in the manner of Tomaso da Missaglia. Brera, Milan

forced buffe. The suit of armour he wears is entirely free from decoration, its splendidly modelled parts alone lifting it above the ordinary apparel of the rank and file. The second picture of Frederico da Montefeltro shows him kneeling in prayer (Fig. 226), apparently in the same suit of fighting armour; but the coudes are altered and the massive pauldrons, *à la façon d'Italie*, are in position. The same sword is girt to his side and the same armet head-piece rests on the ground. Mention of the great Italian pauldrons reminds us of that strange custom, seemingly peculiar to Italy, of wearing the very wide-sleeved chain-mail hauberk over and not under the rere-brace plates. This is very apparent in both these portraits of Montefeltro; but it is even more clearly rendered in a fine line and wash drawing preserved in the Royal Library of Munich (Fig. 227). Here Montefeltro can be seen mounted upon his war horse, his right arm extended, holding the baton. In this drawing will be noticed the short but very wide sleeve of the mail hauberk covering the plates of the rere-brace, over which fits the great pauldron, though how the latter was held in position it is now very difficult to determine. How awkward these great Italian harnesses appear to-day! their shape, seemingly, being more strongly influenced by the fashion of the day than by any consideration for the material comfort of the wearer. This observation is the fruit of experience; for we have put on a harness of this fashion—a very accurate copy of an Italian late XVth century suit. Though the cleverly made suit happened to fit us, the construction of the ungainly pauldron, *à la façon d'Italie*,

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seemed wellnigh impracticable for use; for any movement of the shoulders immediately raised these great plates, catching us on either side of the neck, or locking on every occasion over the shoulder blades. Even in contemporary times this seemed the case, for we note in the Uccello battle-piece in the Uffizi Gallery, Florence, one of the set of four painted for



FIG. 225. PORTRAIT OF FREDERICO DA MONTEFELTRO, BY JUSTUS OF GHENT

Barberini Palace



FIG. 226. SECOND PORTRAIT OF FREDERICO DA MONTEFELTRO

Depicted in the same armour

the Bartolini family to which series our National Gallery picture belongs, the central knight on the white horse is practically unseated by the thrust of a lance from an adversary. Judged by the position in which he is thrust backwards, he appears to be almost choked by his great pauldrons (Fig. 228). In a slightly different form the huge size of the pauldrons can again be noted on a suit of blue and gold Italian armour, represented as

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being worn by an unknown knight in a portrait attributed to Marco Basaiti (Fig. 229). In this case it is the extension over the shoulder-blades that is so marked. The harness represented must have been one of great beauty, for, as we have said, its whole surface is brilliantly blued and bordered with gilded bands. By coincidence we are able to give views of it from either side; for it is identically the same suit of armour in which the handsome youth is painted who is accompanied by his attendant Nubian servant in that famous picture in the Uffizi, attributed to Francesco Torbido, and formerly said



FIG. 227. EQUESTRIAN PORTRAIT OF FREDERICO DA MONTEFELTRO  
Royal Library, Munich

to represent a youthful portrait of General Gattamelata (Fig. 230), an attribution, we understand, which is now discredited. It is not sufficient to say that the suits in these two portraits resemble one another; they are the identical harness, plate for plate, and must have been painted from one and the same model—a curious fact, since the portraits are ascribed to different artists.

In three other pictures Missaglia suits are clearly represented, in the "Tobias with Three Archangels" of Sandro Botticelli in the Accademia, Florence (Fig. 231), where the full beauty of the youthful Saint Michael is displayed in a suit of wondrous elegance and proportions, in Vittore Carpaccio's series of pictures of St. George in the church of St. Giorgio de

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Schiavoni, Venice (Fig. 232), in Pisano's beautiful drawing of an armed youth, now in the Louvre (Fig. 233), and in a very fine drawing in the Brera of Milan by an anonymous Italian artist, which shows a knight armed in a ponderous suit, strongly suggestive of the work of Tomaso (Fig. 234). All the armaments represented in these pictures display features either modified or exaggerated which can be seen in the existing suits we have described; with this advantage, that in the pictures the suits are repre-



FIG. 228. FROM THE BATTLE-PIECE BY PAOLO DI DONO, KNOWN AS UCCELLO  
Uffizi Gallery, Florence

sented with their full accomplishment of additional plates of defence and of chain mail, and also with the enriched rivets and the elaboration of strapping, characteristics all of which are missing in the actual armour of the time that is extant.

The patron saint, St. Andrew (St. Cnut), represented in the imaginary portrait of Margaret, titular queen of Scotland, by Van der Goes, which is in the collection of His Majesty the King (Fig. 235), is depicted in a splendid suit of armour that we consider of Italian origin of the middle of the XVth century. There is, however, just the chance that it might be a German



FIG. 229. AN UNKNOWN KNIGHT  
Attributed to Marco Basaiti  
The Uffizi Gallery, Florence



FIG. 230. AN UNKNOWN KNIGHT  
Attributed to Francesco Torbido  
(Il Moro)  
The Uffizi Gallery, Florence



FIG. 231. ST. MICHAEL  
By Sandro Botticelli. Showing a  
suit of armour made under the in-  
fluence of the Missaglia. Acca-  
demia, Florence



FIG. 232. ST. GEORGE  
From Vittore Carpaccio's series of pic-  
tures showing a suit of armour made  
under the influence of Missaglia. The  
Church of St. Giorgio de Schiavoni,  
Venice

production under Italian influence. Dare we put forward a rather wild theory and suggest that the suit represented is that to which we shall refer later (see page 212) as having been sent by the famous armourers, the Treytz of Mühlen, to the King of Scotland (James III) in 1460? Surely there is nothing unlikely in the idea that, when Van der Goes painted this picture in 1476 he should, at the King's special command, have depicted this particular harness; since



FIG. 233. YOUTHFUL KNIGHT

Showing armour made under the influence of the Missaglia school. From a drawing by Pisano Pisanello. Musée de Louvre



FIG. 234. KNIGHT

Showing armour made under the influence of Tomaso da Missaglia, from a drawing. Brera, Milan

such a complete and fine suit of armour must have been a treasured royal possession in the primitively armed Scottish court. The suit shown might certainly be as early as 1460. Our suggestion is of course highly speculative, made the more so by the very Italian character of the armour represented. Yet, as we have already said, it is impossible to be guided by form alone in assigning nationality, as proof of which look at the vambrace, elbow-cop, and reinforcing coudes (Fig. 236) in the collection of Sir Edward Barry, which

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at first sight we should unhesitatingly pronounce to be Italian of about 1470; yet in spite of this Italian character they bear an armourer's mark of distinctly German origin. These are almost the counterparts of similar armament to be seen on the harness which Queen Margaret's patron saint is depicted wearing.



FIG. 235. THE PATRON SAINT

From the portrait of Margaret of Scotland by Van der Goes, painted in 1476.

Collection: H.M. the King

The painters we have named, except perhaps Francesco da Cotignola who was of the next generation, were practically contemporary with the period of the armour they illustrate, working throughout the second half of the XVth century even into the next. Yet all the time they appear to have rigidly restricted themselves to the representation of armour of the great Milanese school. Again, take the famous Giorgione altar-piece in the Duomo of Castelfranco, where it will be noted that the figure of St. Liberale is clothed in beautiful plate armour closely akin to that to which we have been alluding, but with a difference in the formation of the arm defences (Fig. 237).

We cannot close our description of Italian XVth century suits without a further reference to that series of four pictures by Paolo di Nono, better known as Uccello, which were originally painted for the Bartolini family at Gualfonda. One of these is now in the Uffizi, another is in private hands in Florence, another is to be seen at the Louvre, whilst our own National Gallery is fortunate enough to possess the fourth panel (Fig. 238). The accurate rendering of the harness depicted in these pictures gives them something of the value of a pictorial dictionary of armour. The painting in the National Gallery was formerly believed to represent the battle of Sant' Egidio (7th July 1416); but there is now considerable controversy on this point. In any case this Uccello picture remains a document of the very foremost interest;

for it furnishes those details which are so often lacking in sculptured monuments. True, certain eccentricities are to be noted in the armet head-pieces of the knights; but in the case of the body armour everything is understandable and in close keeping with those early Missaglia suits of which we have given illustrations. It is not our intention here to describe the



FIG. 236. REINFORCING COUDES, WITH THE FIGHTING VAMBRACE AND COUDES

Italian in style but of German make, about 1470  
Collection: Sir Edward Barry, Bart.



FIG. 237. ST. LIBERALE IN THE FAMOUS GIORGIONE ALTAR-PIECE

Duomo of Castelfranco

picture and its interesting details, as we have and shall refer to them more than once in alluding to some individual armament either offensive or defensive.

We have all this time been dealing at some length with the *haute apparel* of the Italian warrior, without expressly stating the fact that in the matter of arms and armour all the civilized nations of Europe were advancing more or less simultaneously towards the same goal of self protection. Just as at

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the present day each invention in ordnance or explosives causes a corresponding development in the construction of our armour-clad ships, and as each improvement in the armouring of those vessels stimulates the artillerist to fresh efforts towards obtaining greater penetrating power for his projectiles, so in past times the improvements in the offensive power of arms and the improvements in the defensive power of armour are inseparably linked and mutually explain one another. This of course is a constant factor in the question of armaments; but in mediaeval times there came into play a unique and charming factor which unfortunately enters not in the remotest degree into the military and naval problems of to-day. We refer to the exquisite artistic instinct of the armour-artists, who, without impairing the strength of the piece, its practical utility, or its confession of material, lavished all the treasures of their taste and imagination on the richest armour and weapons produced at the time. This holds good of the work of the best armourers of every country, and we have only singled out Italy first because the earliest suits with which we are acquainted came from that country, and because Italian armourers were the first whose work we can identify by their marks and of whose family and lives we know something. The identification of the Missaglia is in the first place due to the researches of the late Herr Wendelin Boeheim, formerly keeper of the Imperial Armoury, Vienna, who tells his own story of this discovery. In former years Herr Boeheim served in Lombardo-Venetia as an Austrian officer, and was consequently acquainted with Milan and the Italian language. Knowing that the Viennese armoury was rich in the works of the Milanese armourers, he decided to make a careful investigation in Milan, and to try to see whether he could not discover in the Milanese archives something about their undertakings. At Milan, as in many Italian towns, there is *Via degli Armorari* or Armourer's Street, and a *Via degli Spadari* or Swordmaker's Street. Herr Boeheim was naturally attracted by these names, and spent some time gazing at the different houses in these streets. Peering into a curved passage in the courtyard of a house in the *Via degli Spadari*, he saw on the capital of a column of late XIVth century date (Fig. 239) something which resembled the marks on suits of armour, and looking more closely, he recognized on this piece of sculpture the identical marks existing on the earliest suit of armour in the Ambras Collection (page 177, Fig. 212). He at once hurried to the archives, and, addressing the Director, Signor Pagani, asked him if he knew to whom that particular house in the *Via degli Spadari* formerly belonged. "Yes," replied the other, "to the family of Missaglia,



FIG. 238. BATTLE SCENE BY PAOLO DI NONO (KNOWN AS UCCELLO)  
One of the set of four originally painted for the Bartolini family at Gualfonda. National Gallery

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and we have a bundle of papers concerning them." The result of Herr Boeheim's investigations are to be found in his remarkable memoirs of the Milanese Armourers of the XVth and XVIth centuries, published in the *Jahrbuch*.

In our delight in the achievements of the armourers of Northern Italy we must not forget that in Germany and in France the craft of the armourer was making equal strides. It is not, however, until the end of the third quarter of the XVth century is reached that we are able to illustrate



FIG. 239. THE MONOGRAM ON THE CAPITAL OF A COLUMN

From a house formerly in the *Via degli Spadari*, Milan, the home of the Missaglia

complete suits of these nationalities; the detached pieces alone remain to demonstrate the splendid progress made in the earlier part of the century. Could we but discover a German or a French harness of a date contemporary with that of the Tomaso da Missaglia suit in Vienna, we have little doubt that we should give it almost equal praise with that which we have bestowed on the fine examples of Milanese armour.

The student of armour is brought up to believe that the direct formation of a plate, its constructive protective quality, and the general subject of its decoration are factors sufficiently guiding to enable him to differentiate

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between the nationalities of suits or of pieces of armour: and, perhaps generally speaking, such teaching is incontrovertible—in theory. But when it is remembered that Italian armourers worked in Germany, France, and Spain, and that German and French armourers were also liable to roam abroad in large numbers, the difficulty of arriving at any absolute and definitive classification becomes at times almost insuperable. From a description of the Baron de Cosson which the author kindly allows us to quote we are able to give an admirable instance of a suit of armour dating possibly within the third quarter of the XVth century, which though certainly made in Italy is of the most pronounced Franco-German fashion. We refer to a very beautiful suit now in the Metropolitan Museum of New York purchased with the Duc de Dino's Collection (Fig. 240, *a, b, c*).

This suit owes its present state of completeness to the late M. Spitzer of Paris; but we may look upon its principal parts as true and authentic examples of that confusing combination of nationalities and style to which we have referred. Prior to its incorporation in the Spitzer Collection, it was in that of M. Louis Carrand, and until recently has been considered as entirely a German achievement. The armour is incontestably of German shape, *à la façon d'Allemagne*; but an examination of the armourer's marks found on the various parts justifies us in doubting whether it was made in Germany. Moreover the form of the *salade* head-piece has, in our opinion, a French look. If this armour is carefully scrutinized three different kinds of marks are found on it, a peculiarity not unknown to the armour of the XVth century. But what is singular is that all the marks of this most German-looking harness have a distinctly Italian character. The Baron de Cosson has for the past thirty years been collecting all the marks which he has noted on armour and weapons, with the result that he is now in a position to distinguish with certainty between the type of mark used in Italy and that of German or Spanish armourers. On this suit are a certain number of marks the character and signification of which are not very clear; but the Baron does not hesitate to say that *all* the marks found on this armour are Italian.

Was this armour produced in Italy?

The Baron de Cosson thinks it was not, because during the second half of the XVth century, the suits *à la façon d'Italie* were, as we have shown, the most perfected from the defensive point of view, and because the Italians have never closely copied the German styles. But we must remember that towards the end of the XVth century a great number of Italian armourers



(a)

FIG. 240. SUIT OF ARMOUR UNDER DIVERS INFLUENCES IN STYLE BUT PROBABLY OF FRANCO-ITALIAN MAKE ABOUT 1480

(a) Front view

Metropolitan Museum of New York



(b)



(c)

FIG. 240. SUIT OF ARMOUR UNDER DIVERS INFLUENCES IN STYLE BUT PROBABLY OF FRANCO-ITALIAN MAKE ABOUT 1480  
(b) Profile view; (c) Back view  
Metropolitan Museum of New York

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were working in France where the armour of the knight, especially in the Northern provinces, more nearly resembled that of German make. At this period two great schools of armourers fought for supremacy in the production and perfecting of war harness, that of Augsburg and Nuremberg in Germany, and that of Milan in Italy; and a great number of armourers from both countries were working in France. Among the Milanese we find at the period when this armour was made, the following Italians working at Tours: ANTOINE BOLCHEGA, 1470-88, JACQUES DE CANOBIO, 1475, JEHAN GERENZAN, 1492, JACQUES HEYRALDE, 1460-1501, LOYS DE LACQUES, called Merveilles, brought to France by Charles VIII in 1497, AMBROISE DA PRATA, 1470-1507, and BALSARIN DE TRETZ, 1474-1507. At Lyons we find AMBROGIO BINAGO, 1458-83, JEAN-PIERRE DE MEDICIS, 1465-75, and THOMAS DE MILAN, 1466-71. At Bordeaux we find CLAUDIN BELLON, 1485-91, AMBROISE DE CARON, surnamed Karoles, 1485-1502, and ESTIENNE DAUSSONNE, 1485-90. Two interesting points which we have ascertained are that it is not difficult to discover from the French forms of these names the native country of most of these artists and that all the most celebrated armourers of Milan—the Missaglias, the Negrolis, the Merates, and the Mondrones—originally came from the same district. The district in question is situated between the Lago Maggiore and Lago di Como and the City of Milan, and is that in which the iron mines are found from which the material was derived wherewith to fashion the famous Milanese suits. For instance, Jacques de Canobio called himself "da Canobbio" from Canobbio, the name of a little town near Lugano. Jehan Gerenzan was a native of Gerenzano in the same neighbourhood, while Jacques Heyrard is found under the name of Jacobino Ayroldo in the diplomatic archives of Milan. In these documents it is stated that the King of France, wishing to have some fine suits fashioned for himself and for the Barons, Lords, and Knights of his Court, and not having master armourers capable of accomplishing his wishes, sent Jacobino Ayroldo, his armourer, to the Duke of Milan with letters sealed by his own hand, begging his Grace kindly to send him in company of Jacobino twelve workmen with instructions how to fashion the armour of his Majesty, etc. Loys de Lacques probably came from Lecco, on the Lake of Como; Balsarin de Tretz was called in Italian "da Trazzo," after a village in the neighbourhood of Lecco; Claudin Bellon was a native of Bellano on the Lake of Como; Ambroise de Caron was called Ambrogio di Caronno, from a small town between Milan and Lugano; and Estienne Daussonne took his name from Osogna, near Lake

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Maggiore. When account is taken of the fact that there were so many Italian armourers working in France at the same time, there will seem to be nothing out of the way in a suit of armour made in France being stamped with devices bearing an Italian character; but one could never admit that a German suit of armour was stamped in such a manner. The stamps found on the New York suit are to be seen on the *salade*, on the gorget plate of the *bevor*, and on the back of the right pauldron. On the *salade* there are three marks placed in a triangle—a purely Italian method of stamping. The upper one is partly effaced, but the two lower ones are formed of the letters B, G, or B, C—possibly even B, O, since the second letter is not very legible—surmounted by a cross with two feet, which are inclined towards each other like a compass. This is the type of many Milanese stamps of the XVth century. The stamp on the gorget is also made up of three, placed triangularly and unfortunately very much effaced. The upper one consists in one or two letters surmounted by a crown; and the two lower ones are made up of two letters that appear to be I and A, surmounted by a cross.

But the most interesting mark to examine is that on the pauldron; for this is also found upon two pieces that formerly belonged to the Royal House of France, on a chanfron also in the Dino Collection (see Chapter XXII) which belonged to Henry II when Dauphin, and on the *poitrel* of the horse armour of that suit made for Louis XIII now in the Artillery Museum. The mark in question is composed of a globe surmounted by a cross on which can be read in Italian Gothic characters the words, ROM ROM. How comes it about that the same mark is found on a late XVth century suit, on a chanfron of 1539, and on a Louis XIII horse armament? Both in shape and craftsmanship the chanfron of Henry II has quite the character of the work of the end of the XVth century. It may therefore be surmised that under Louis XIII the armourer's art had so deteriorated that an armourer of the time who wanted to put forward a fine example might conceivably prefer to make use of a bard already existing in the Royal Arsenal of the Louvre, merely enriching it with decorations in order to make it conform to the fashion of the day. It is otherwise difficult to imagine that an armourer of the reign of Louis XIII should have used as a stamp a mark in Italian Gothic letters.

If we were desirous of entering the field of conjecture we might let ourselves recognize in the stamp I A on the *bevor* of the suit under discussion the mark of Jacobino Ayroldo, in the B, C, of the *salade* the

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mark of Antonio Bolchegea, who was most probably one of the twelve companion armourers sent to the King of France by the Duke of Milan, and in the mark ROM ROM that of a third armourer who has remained anonymous. Thus we should find ourselves confronted by one of the suits made at Tours for the Court of Louis XI. But to return to a less speculative method of criticism, let us notice that the small *salade* with the short protective covering for the back of the neck, has by no means the character of the German *salades*. It rather resembles another *salade* in the Metropolitan Museum of New York which is stamped with a mark of French character. In shape these two *salades* recall those that one may see in so many paintings of French manuscripts dating from the second half of the XVth century, and in the carved woodwork of the same provenance and of the same period. If, however, our theory is correct, this suit is all the more interesting from the fact that with the exception of one suit in the Musée d'Artillerie (G 4), the next but one to be described (page 209, Fig. 243), which, if it was made in France, is equally the work of an Italian armourer, it must be reckoned the only entire French suit of armour from the reign of Louis XI that is extant.

The suit (Fig. 240) is of great elegance in form and at the same time of very high finish in respect of workmanship. All the parts are ornamented with channels which form flutings together, some diverging from a centre, others parallel, others again placed zigzagwise. All the edges of the plates are dentated and pierced *à jour* with a series of small trefoils, a scheme of ornamentation which imparts a marvellously light appearance to the general impression without diminishing the strength of the steel.

The *salade* is fitted with a visor, whilst the skull-piece is reinforced. It is completed by a bevor, the gorget of which is attached to the top of the breastplate. The breastplate has the detached plate and taces of three plates. The back-piece is formed of several articulated lames and has a *garde de rein* of four plates.

As in the case of many other suits of this type, and notably in that of the two superb suits of Sigismund of the Tyrol at Vienna, of which we shall speak later, the tassets are lacking. These pieces, being simply attached by thongs and buckles, were easily lost when the leather for their detachment perished. The *espalier* pauldrons are augmented with rondels. The elbow cops terminate in very slightly curved and extravagantly long points. The gauntlets are neither mittens nor fingered, but the first and second

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fingers and the third and fourth fingers are under separate protection. The cuisses are very long and are provided with lateral plates encompassing the



(a)

(b)

FIG. 241. PORTIONS OF A SUIT OF ARMOUR MADE BY THE BROTHERS GABRIELLE AND FRANCESCO MERATE OF ARBOIS ABOUT 1475

(a) Breastplate, tassets, and armet; (b) Reinforcing breastplate

Found in the moat of a castle near Besançon, France. Now in the Swiss National Museum, Zurich

sides of the thighs, which, when the wearer was mounted on his horse, helped to give him fine protective power. The whole leg armament is

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admirably shaped and appropriate to the contours of the limbs. The dexter leg-piece and both the sollerets are of modern manufacture.



FIG. 242. SUIT OF ARMOUR  
Made for Claude de Vaudrey by the Brothers  
Merate of Arbois in about 1490-5  
Imperial Armoury, Vienna

Before we describe another entire harness that we will accept as being of French nationality or at least made for France, let us as a final proof of the Baron de Cosson's admirable argument as to the extreme difficulty of distinguishing the nationality of a late XVth century suit merely by virtue of its style, illustrate parts of a suit of armour that were found in the moat of a castle near Besançon in France (Fig. 241). Shown the plates that constitute the portions of this suit, we should unhesitatingly pronounce them to be Milanese of about 1470. This is so, for they bear the armourer's mark ARBOIS, showing that they are the work of Gabrielle and Francesco Merate, who were Milanese by birth, but who worked at Arbois. In 1494 the Merate were appointed armourers to Maximilian I. From 1494 until 1509 the Emperor Maximilian retained Merate's factory at Arbois. So here we have Milanese armourers working in France and appointed to a German Court, though in their productions—only two others are known beside the remains of this suit, the suit said to be made for Claude de Vaudrey, chamberlain to Charles the Bold, Duke of Burgundy, and worn by him at a foot tournament held on the occasion of the meeting of the Diet of Worms in 1495 (Fig. 242), now preserved in the Imperial Armoury, Vienna, and another suit in the same collection—they

retain all the characteristic features of Milanese-made armour. Whether, however, their later work was influenced by the demand of the German

Court for which they were working we are unable to say, for no other marked pieces than the three we have mentioned are known. We are indebted to Sir Henry Angst of Zurich for the illustration and details which describe the Besançon suit (Fig. 241).

We will now again allude to a suit regarded as one of the most treasured possessions of the Musée d'Artillerie of Paris (G 4), a suit which has always been considered of French nationality, but which, though doubtless made in France and in the fashion of that country, we pronounce to be the work of Italian armourers settled there. In the official catalogue it is ascribed to the latter part of the reign of Charles VII; but it is our impression that it is of later date, about 1480. Very simple in its outline and almost entirely devoid of ornamentation, it has the educational advantage of each plate belonging to its fellow, while the armet head-piece is that which was made for the suit. Its workmanship is excellent, and the general form most pleasing from its obvious convenience for wear. The pauldrons are remarkably advanced in their development in comparison with the rest of the harness. We note also a curious feature in the pointed tuille-like tassets, that is to say, the addition of four laminated plates riveted at their tops before their attachment to the taces. The leg defences are modelled with the greatest anatomical knowledge (Fig. 243).

When we turn for an example of true German armour in full complete-

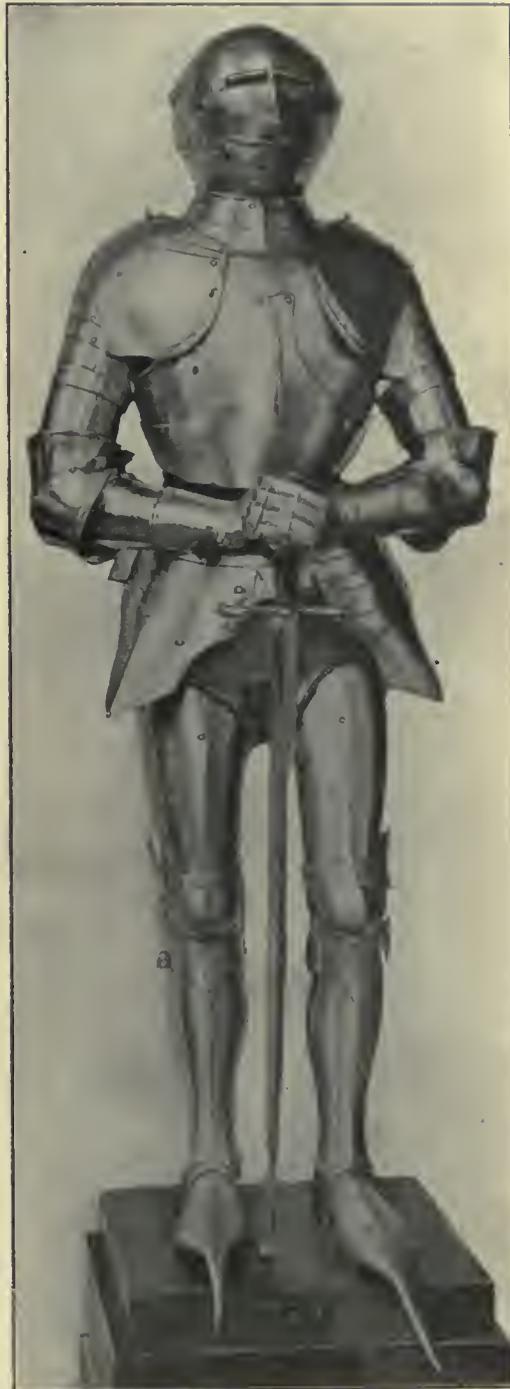


FIG. 243. SUIT OF ARMOUR, FRENCH (?)  
ABOUT 1480  
G 4, Musée d'Artillerie, Paris

## EUROPEAN ARMOUR AND ARMS

ness we can find none of earlier date than the third quarter of the XVth century. This is the period to which we must assign one of the most beautiful suits of armour in existence, that made for Sigismund "the wealthy," Archduke of the Tyrol (1427-1496) (Fig. 244). Enthusiastic as we have been over the works of the Milanese armoursmiths of the XVth century, we are bound to confess that we have never examined a war harness that was so soundly constructed, or one that so plainly reveals the guidance of a master mind in every curve and contour of its outline. The form is exquisite, each plate appearing to caress and to cling to that part of the body it was intended to protect; while the surface is decorated with the most conceivably graceful arrangements of fluting, tracery also edging most of its principal plates. It is further enriched by applied borders of gilded latten or brass, known in Italy as *ottone*. By the courtesy of Dr. List, the Keeper of the Imperial Armoury of Vienna, we were privileged to dismount this splendid suit, and to make a prolonged examination of it piece by piece. The ingenuity shown in the construction of the minor plates of the rere and vambraces, and also of the pauldrons, is little short of marvellous: all possible and indeed impossible movements appear to be provided for. The suit possesses no tassets, and unless they were of the smallest proportions—made possibly to carry out the line of the taces—they may never have existed; for the decorated edging of brass we have mentioned, borders the lower edge of the lowest tace plate. The laminated extensions of the cuisses require notice: they reach almost to the line of the hip bone rendering the tassets as protection practically useless, and so confirming our view that they never existed on this suit. It appears that the back parts of the sollerets are missing. The latter show the detachable toe-caps drawn out to the most exaggerated point. In addition to the *salade* head-piece and bevor of which the suit can boast, it has an interchangeable helmet in the form of a *chapel-de-fer* or war hat (see Chapter XI, vol. ii). The late Herr Wendelin Boeheim, as we have said, one time Keeper of the Vienna Armoury, considered that this suit was finished for the Archduke about the year 1470, and though this splendid example of the armourer's craft is entirely unmarked, he suggests that it may well have come from the workshop of Hans Grünewalt of Nuremberg (1440-1503). Hans Grünewalt was the son of the famous bell caster, Heinrich Grünewalt. The mark he used is a little uncertain; but Herr Boeheim has no hesitation in ascribing to his hand the following examples in the Vienna Armoury: the breastplate of King Philip of Castile, the sword of the Emperor Maximilian I and the



FIG. 244. SUIT OF ARMOUR

Accredited to Sigismund "the wealthy," Archduke of the Tyrol (1427-1496). German work, late XVth century. Imperial Armoury, Vienna  
 Herr Wendelin Boheim suggested it might be the work of Hans Grünewalt of Nuremberg (1440-1503)



FIG. 245. ANOTHER SUIT

Accredited to the same prince. German work, late XVth century. Imperial Armoury, Vienna

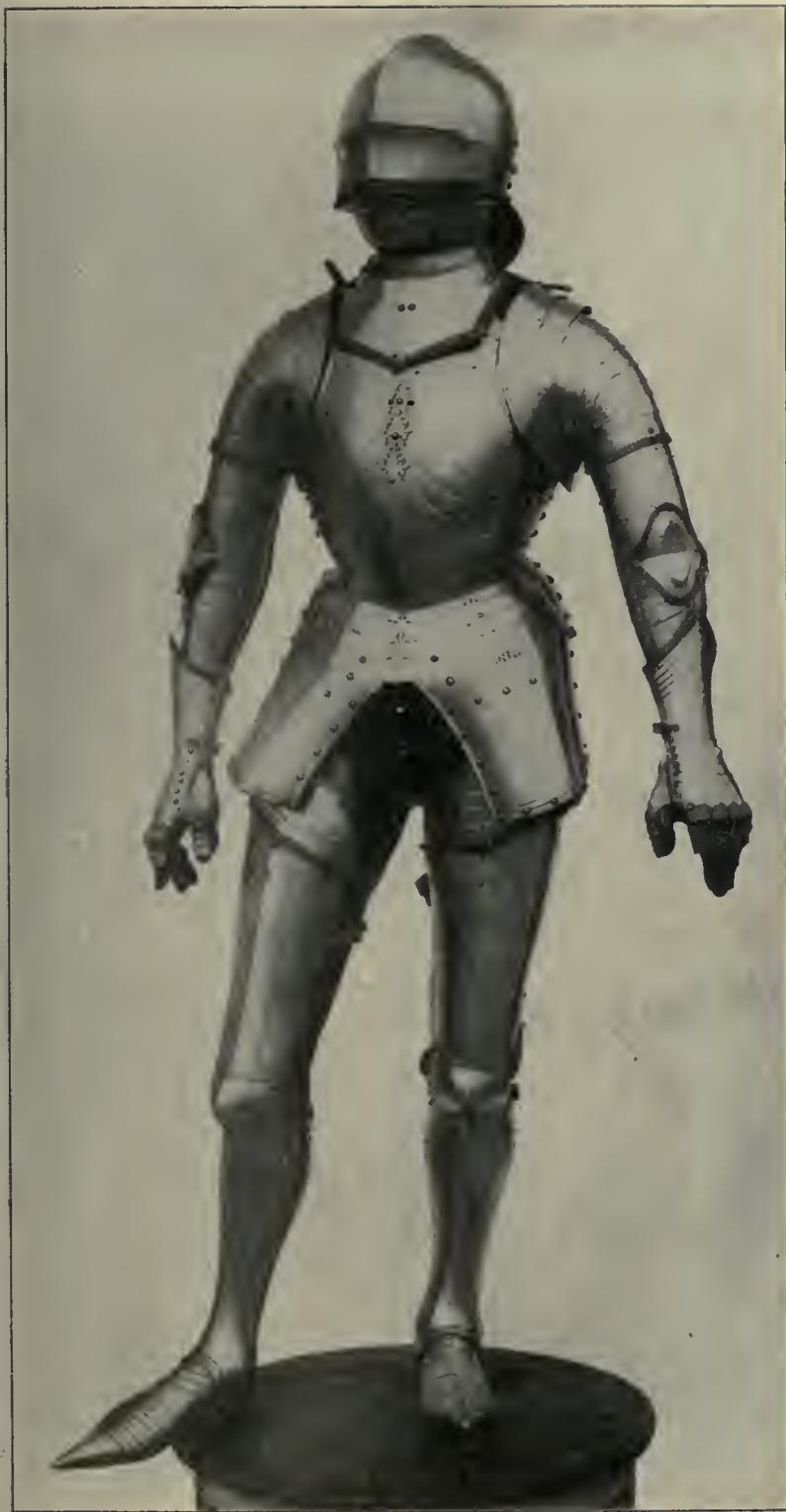
## EUROPEAN ARMOUR AND ARMS

hunting weapons of the same Emperor. We find mention of this, the Archduke Sigismund's suit, in the inventory of his estate made in 1596, where it is described as "*Ain ganze weisse rüstung mit ausgehauen durchsichtigen [sic?] messing.*" Another beautiful late XVth century suit (1470-80) made for the same Archduke (Fig. 245), is also to be seen in the Imperial Armoury of Vienna; this is simpler in its tracery enrichments, and the gauntlets and the breastplate alone are slightly channelled. But the latter presents the multiplicity of three placate plates, the apex of each most delicately pierced with foliated tracery. On this suit, too, are latten gilt enrichments, but of a simpler nature. We should imagine that if the suit just described is the work of Hans Grünewalt, this may also come from his hand: so constructionally alike are the two suits.

Although we are unable to illustrate a full harness made by any member of the famous Treytz family of Mühlen near Innsbruck, we are fully conscious of the necessity of alluding to the achievements of these famous armourers, and therefore append the following brief account of their work.

The oldest member of the family is known to have worked about 1460. He died in 1469, his sons George and Christian carrying on the art, the most famous of the family, however, being Adrian the son of George, who was born about 1470, and died in 1517. Between the years 1460 and 1500 no less than forty-five historical suits are recorded to have been made by this family for celebrated personages, of which suits we believe none are to-day in existence. The more important personages for whom the Treytz family worked will be gathered from the following list of suits made by them between the years 1460 and 1490.

In 1460	they	constructed	a	suit	for	the	King	of	Scotland.
" "	" "	" "	" "	" "	" "	" "	" "	" "	Churfurst
In 1472	" "	" "	" "	" "	" "	" "	" "	" "	the
In 1475	" "	" "	" "	" "	" "	" "	" "	" "	the
In 1484	" "	" "	" "	" "	" "	" "	" "	" "	the
In 1488	" "	" "	" "	" "	" "	" "	" "	" "	the
" "	" "	" "	" "	" "	" "	" "	" "	" "	Phillip
" "	" "	" "	" "	" "	" "	" "	" "	" "	le
In 1490	" "	" "	" "	" "	" "	" "	" "	" "	Beau.
" "	" "	" "	" "	" "	" "	" "	" "	" "	the
In 1490	" "	" "	" "	" "	" "	" "	" "	" "	King
In 1491	" "	" "	" "	" "	" "	" "	" "	" "	George
In 1491	" "	" "	" "	" "	" "	" "	" "	" "	of
In 1492	" "	" "	" "	" "	" "	" "	" "	" "	Saxony.
In 1492	" "	" "	" "	" "	" "	" "	" "	" "	Margrey
In 1492	" "	" "	" "	" "	" "	" "	" "	" "	Sigmund
In 1493	" "	" "	" "	" "	" "	" "	" "	" "	of
" "	" "	" "	" "	" "	" "	" "	" "	" "	Brandenburg.
" "	" "	" "	" "	" "	" "	" "	" "	" "	Duke
" "	" "	" "	" "	" "	" "	" "	" "	" "	Reinhardt
" "	" "	" "	" "	" "	" "	" "	" "	" "	of
" "	" "	" "	" "	" "	" "	" "	" "	" "	Lothringia.
" "	" "	" "	" "	" "	" "	" "	" "	" "	Maximilian
" "	" "	" "	" "	" "	" "	" "	" "	" "	I.
" "	" "	" "	" "	" "	" "	" "	" "	" "	the
" "	" "	" "	" "	" "	" "	" "	" "	" "	son
" "	" "	" "	" "	" "	" "	" "	" "	" "	of
" "	" "	" "	" "	" "	" "	" "	" "	" "	the
" "	" "	" "	" "	" "	" "	" "	" "	" "	King
" "	" "	" "	" "	" "	" "	" "	" "	" "	of
" "	" "	" "	" "	" "	" "	" "	" "	" "	Bohemia.



(a)



(b)

FIG. 246. SUIT OF ARMOUR

Said to have been made in 1493 for Maximilian I by Lorenz Kolman of Augsburg

(a) Front view.

(b) Back view.

Imperial Armoury, Vienna

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The breastplate of Phillip le Beau (about 1490), now in the Imperial Armoury of Vienna, comes from the hand of Adrian Treytz; one of the Treytz mark can also be seen on the large bascinet helmet upon the famous early Missaglia suit (page 179, Fig. 213), in the Museum of Berne, and a variation on the gauntlets placed with the suit No. 340 in the Wallace Collection, London (see chapter xv, vol. ii).

We could not with any pretence to completeness bring to a close our illustrated record of famous XVth century suits which still exist without incorporating an example, and one of the highest historical importance, of the work of the great family of Kolman of Augsburg; for, as we have previously remarked, it was in a large measure due to the rivalry prevailing between the armourers of Nuremberg (see page 204) and of Augsburg headed by the Kolman family, and of those of Milan headed by the Missaglias, that the work of the armour-artist attained its highest perfection. The maker of the Maximilian suit which we are about to describe is Lorenz Kolman, whose grandfather, Martin Kolman, came to Augsburg in 1377, to be succeeded by Georg who died in 1479. Lorenz is mentioned in 1477 as having completed, to the satisfaction of his patron, a full suit of armour for man and horse designed for Maximilian, afterwards emperor. In 1490 he received the honorary title of Courtplater, or Court armour maker, to the same Prince. The suit which we illustrate is another he made for Maximilian, and which is reputed to have been finished in the year 1493 (Fig. 246, *a, b*). This harness was once in the possession of the Archduke Ferdinand of the Tyrol, and is mentioned in the inventory made of his possessions in 1596, to which we have already referred. Lorenz Kolman died in 1515, to be succeeded by his almost more famous son Koloman Kolman, whom we shall have occasion to mention later.

In this Maximilian suit of 1493 a strong general likeness can be seen to the Nuremberg suits we have just described. The "Gothic" influence of form and decoration is still retained; but innovations in plate formation can be noticed that would seem to indicate the advent of the Renaissance. The head-piece, though still the *salade*, fits closely and with concealed catches to the bevor; which in its turn is completed with laminated gorget plates both back and front, on the principle of the neck defence of an ordinary closed XVIth century helmet. Then, too, an entirely new form of shoulder and upper arm defence can be observed, that is to say, concentric lames of steel conjoined by *almaine rivets* protecting the entire shoulder and diminishing in circumference until the last hoop fits the turner of the *rerebrace*. To



FIG. 247. SUIT OF ARMOUR

The principal plates bearing the mark of Lorenz Kolman, late XVth century  
Schloss Museum, Sigmaringen

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judge from their appearance in our illustration it would seem that owing to an error made in setting up the suit the extreme outside lame is placed



FIG. 248. EXAMPLES OF SO-CALLED "GOTHIC" ARMOUR FROM ENGLISH COLLECTIONS

- A A Pair of cuisses and *genouillères* about 1480. Collection: H.M. the King, Windsor Castle
- B B Pair of cuisses and *genouillères*, probably German, about 1480. Nos. 18 and 25, Wallace Collection
- C Breastplate. Italian, about 1480. No. 32, Wallace Collection
- D Breastplate, probably French, about 1470. Collection: H.M. the King, Windsor Castle
- E Breastplate, blued and gilded. Italian, about 1500. No. 44, Wallace Collection
- F Backplate. German or French, about 1470. Collection: H.M. the King, Windsor Castle

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over and not under the gussets of the breastplate as it should be. The exposed inner bend of the arm is protected by overlapping lames which, as

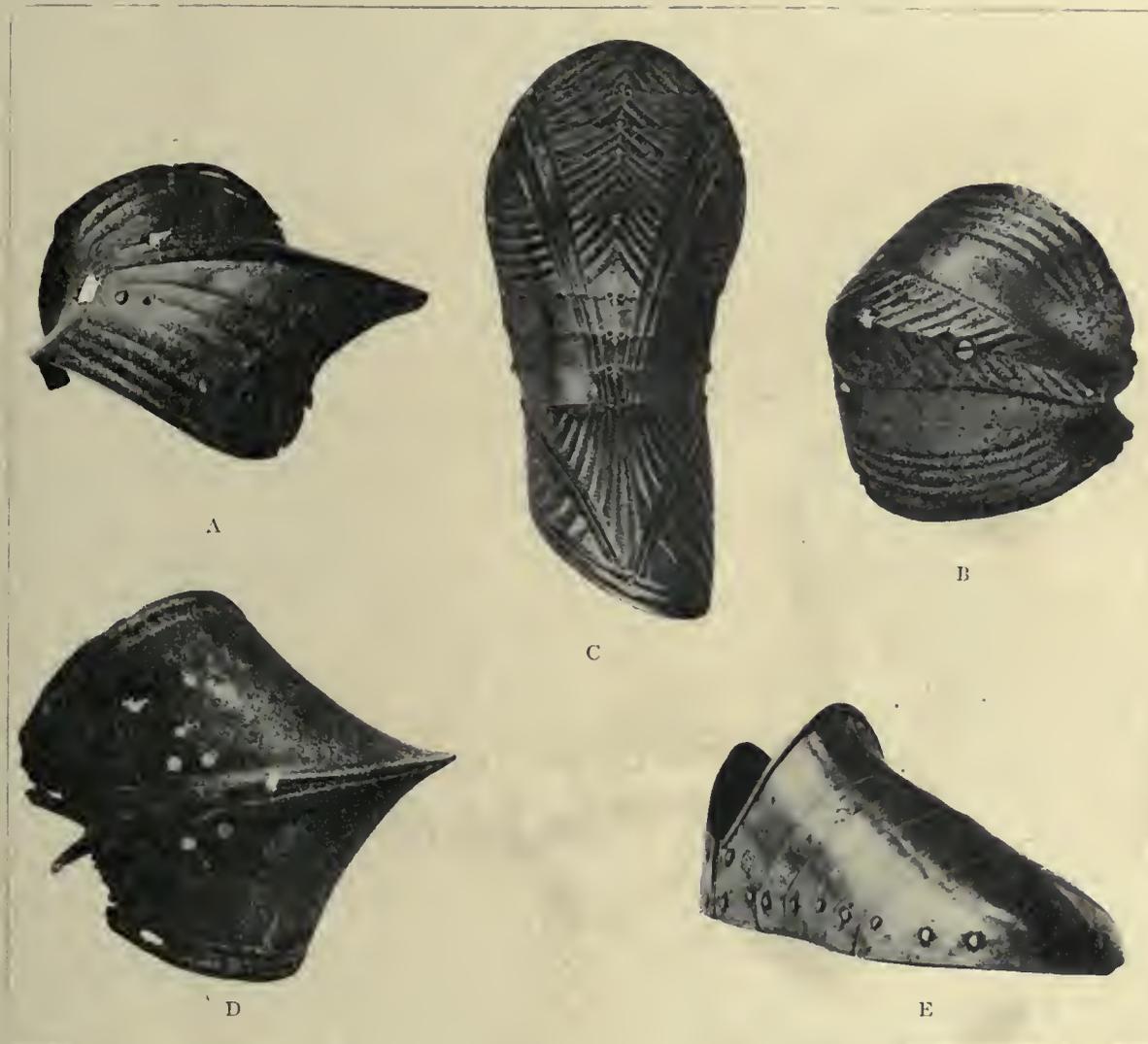


FIG. 249. EXAMPLES OF "GOTHIC" ARMOUR FROM ENGLISH COLLECTIONS

- A Left coudes, probably French, about 1450. Collection: Henry Keasby, Esq.
- B Right coudes, Italian, about 1470. Collection: the Lady Zouche
- C Left espalier and rerebrace, probably French, about 1470. Collection: the Lady Zouche
- D Left coudes, probably French, about 1460. Collection: the Lady Zouche
- E Left solleret (one of a pair), bearing a Milanese armourer's mark, about 1480. Collection: Sir Edward Barry, Bart.

we shall see, are an additional defence met with on the finer suits of the XVIth century. To the taces are attached rectangular tuille tassets. The sollerets are still pointed, though the final elongated plates as seen on the

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suits we illustrate (Figs. 244 and 245) are lost, but the turning pins by which they were attached are in position. Like that of nearly all the suits in the Imperial Armoury of Vienna, the condition of this Kolman suit is superb, almost pristine in freshness, if now a trifle over-polished.

We could illustrate other examples, though not very many, of extant and almost complete late XVth century suits; but we will content ourselves by a final allusion to a superb German harness in the Schloss Museum of Sigmaringin. In that museum is to be seen a fine collection of arms formed by one of the Princes of Hohenzollern Sigmaringin; its most important exhibit, however, being portions of a Gothic suit of the very finest epoch of German XVth century armour, both the breastplate and backplate of which bear the mark of Lorenz Kolman (Fig. 247).

We give a page of illustrations of individual parts of fine late XVth century armour of various nationalities chosen from the composite Gothic suits at Windsor Castle and the Wallace Collection (Fig. 248), and also from the private collections of the Lady Zouche, Sir Edward Barry, and Mr. Henry G. Keasby (Fig. 249).

As representing the English fashion in complete armour of the third quarter of the XVth century we reproduce illustrations of the effigies of Sir John Crosby in Great St. Helen's Church, London, and of John de la Pole, Duke of Suffolk, in Wingfield Church, Suffolk. The former effigy is about 1475, the latter about 1490. Over the armour of the eminent grocer and wool merchant of London town is worn his Aldermanic gown (Fig. 250); while over that of the Duke of Suffolk appears his Garter robes (Fig. 251). On the Crosby effigy the breastplate with the larger super placate is a noteworthy feature. The pauldrons and arm-pieces are very complete; while the elbow cops are made exactly on the principle of those depicted on the Hungerford effigy, the aiglettes or arming points by which they are attached being most clearly defined. The tuille tassets are large and pointed, as are the sollerets. The cuisses have three horizontal ridges running across them, an unusual decoration rarely seen on any existing leg armour of the period. Both dagger and sword are missing.

As might be expected, the harness represented on the Duke of Suffolk's effigy, though severely and absolutely plain, falls not a whit below that high standard of protective quality to which armour generally had attained towards the close of the XVth century. We imagine that we shall hardly be depreciating the interest in this effigy if we suggest that the armour represented is distinctly English in make and insular in style, fully protective, as

we have already remarked, but severely plain and a little shapeless. It is the work of an armourer-artist, but not of a first-class armour smith, who we should imagine had turned out many such suits to supply the strenuous demand for armaments occasioned by the outbreak of the Lancastrian and Yorkist feud. Common as must have been these English-made suits in England in the early years of the XVIth century, not a single harness is to-day,



FIG. 250. THE EFFIGY OF SIR JOHN CROSBY

About 1475. Great St. Helen's Church, London. After Stothard



FIG. 251. THE EFFIGY OF JOHN DE LA POLE, DUKE OF SUFFOLK

About 1490. Wingfield Church, Suffolk. After Stothard

to our knowledge, in existence. The Suffolk effigy, however, is chiefly valuable for the beautiful series of coloured details which Stothard has succeeded in extracting from it. The breastplate, with its slightly globose plates coming high in the neck, is of the same type to which certain extant examples conform, the provenance of which is usually associated with Innsbrück or Southern Austria. In place of the pauldrons are very simple espaliers; while

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it will be noted that rivets with shaped heads are substituted for arming points in attaching the coudes. Taces of four plates and comparatively small pointed tuille tassets complete the body armour, beneath which can still be seen the complete chain mail hauberk showing at the neck, gussets, and around the waist. So advanced are the leg defences, with their full simple cuisses, their *genouillères*, and their sollerets almost of the bear paw or duck bill Tudor type, that were an actual existing leg-piece shown, we should not hesitate to date it as belonging to the first quarter of the XVIth century. A splendid cruciform hilted bastard sword hangs on the Duke's left side, while on his right is a stout short-quilloned dagger.

We later devote a chapter to an account of Jazarine and of Brigandine armour; but it would be impossible to give a detailed description of the extraordinary multiplicity of media and diversities of shape that were employed by the armourers of civilized Europe throughout the XVth century. Sometimes the body armour was formed of plates of metal riveted together either over or under a foundation of cloth and leather; often it was cloth encased, curiously padded, or even fashioned of plaited rope. An example of this last-mentioned fashion is to be seen in the Riggs Collection, Metropolitan Museum of New York.

In the third quarter of the XVth century we have also to reckon with the spirit of the Renaissance which, though working slowly at first, soon gathered momentum, making itself apparent in almost every armament used by princes and nobles of this luxurious period. In Italy more especially, if the work of the painter, of the sculptor, and of the bronze founder be studied, classically fashioned armour is mostly represented, with the result that this invasion of contemporary art by classicism reacts most strikingly on the armourer's craft. True it is that little, if any, classically influenced armour of the XVth century is in existence; but if the evidence furnished by contemporary pictures and tapestry goes for anything the result must have been an extraordinary mingling of styles. The present writer cannot think that this desire for depicting armour of Roman fashion existed solely in the minds of the painters and sculptors; there must have been countless examples actually made to pander to the fast-growing fashion. Donatello's statue of General Gattamelata, erected in front of the Church of St. Antony of Padua, shows him attired *à l'antique* (see page 173). In the same fashion is the famous statue of St. George by the same artist, which was formerly placed in a niche on the façade of Or San Michele, Florence. We repeat what we have said before, that we cannot illustrate a harness

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that can actually claim to belong to the XVth century in which this classical influence is manifest; but if we are allowed to step over the borderland into the XVIth century we can furnish many convincing examples. The entire disappearance of XVth century armour made in this style is due probably to the fact that the suits in question were built up of mail, brigandine, and quilted defences—materials all of which are easily disintegrated by the influence of wear and time—and also to the circumstance that after their initial use by some great personage their component parts were of little subsequent value to the ordinary soldier, and so were cast aside as useless.

Perhaps after looking at some of those late XVth century panels of tapestry to which armour students are indebted for much of their knowledge of this particular style of military equipment, readers may feel inclined to remark: "We find no reference in this work to such and such a defence." We make our apologies in advance, begging such readers to appreciate the fact that though we have referred to many of the vagaries of fashion adopted by these neo- or pseudo-classical suits it is impossible within the limits of our space to record all the circumstances that helped to complicate man's defence at a time in which the whole art of the Renaissance was laid under contribution for the purpose of adorning a fighting harness.

Mr. Charles Ashdown in his book, "British and Foreign Arms and Armour," has, with a view to simplifying the subject, divided the chapters on European body defence under the headings of the Jupon Period, the Surcoat Period, the Tabard Period, and so on. And an excellent idea it is, except that once we set out to deal with the textile portion of the knight's apparel we incur the responsibility of dealing with other garments of a semi-military nature. Our account of war cloaks must be brief. The XIIIth century shows us the mail-clad knight occasionally in composite armour, which is covered by the long flowing cyclas. As the century progressed, heraldic significance was added to this garment. The XIVth century sees the continuance of this custom. But after the first quarter of this century this outer garment shortens, until in what we have termed the Black Prince era it disappears, and in its place comes in the short, comparatively tight-fitting garment called by various names, though we refer to it as the gipon, such as is nearly always represented on the effigies and brasses of the second part of the XIVth century. The arms of the wearer were almost invariably depicted on the gipon. With the advent of the XVth century can be noted the gradual disuse of the tight gipon, which is once more replaced by an outer garment

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assuming in cut the looseness of the early XIVth century cyclas. This last form of the long cyclas was discarded towards the first quarter of the XVth century, and the knight of about 1430 is seen fighting with his armour completely exposed, though in some instances he retains a flowing lambrequin sleeve or some other sartorial adornment of little importance. About the third quarter of the XVth century and onwards to its close, contemporary illustrations show another form of outer garment worn over the splendidly complete armour of the time. Both in style and form, it resembles

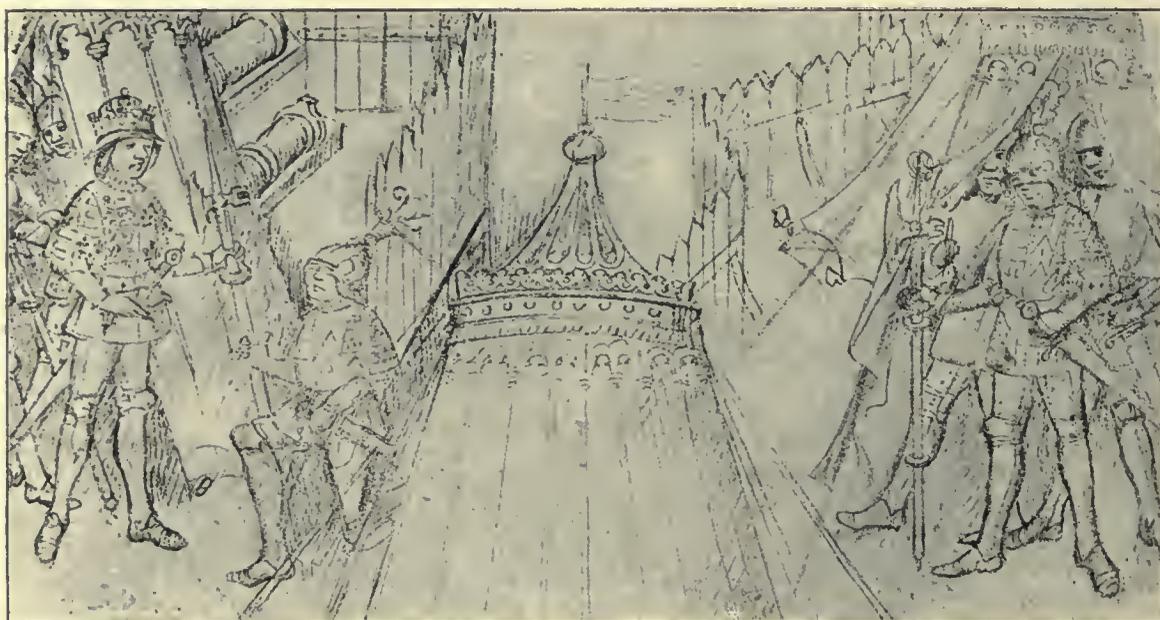


FIG. 252. RICHARD BEAUCHAMP, EARL OF WARWICK, AT THE SIEGE OF ROUEN

Twice represented, in the first instance kneeling to King Henry V. Cotton MSS., Brit. Museum  
The Warwick Pageant, drawn about 1485

the tabard worn to-day by the officers of the Heralds' College, though it appears to have fitted somewhat more closely to the body. No more admirable illustration of its use can be seen, especially in England, than in the drawings that appear in the famous Cotton MSS. (The Warwick Pageant). We shall have future occasions to refer to this document; but we will tell the reader that though the episodes portray the important events in the life of Richard Beauchamp, Earl of Warwick, who was born in 1381 and died in 1439, the manuscript, with its illustrations, was not executed, as is manifest from many evidences, until about 1485 or 1490. To which period accordingly

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belong the fashions of the armour and weapons. Very many of the armed representations of the Earl of Warwick, whether he be depicted in actual battle or in the tournament, show him in a tabard or surcoat emblazoned with his family arms. We here give three representations of him wearing this outer garment (Figs. 252, 253, and 254); while illustrations referring to other armaments taken from the same Pageant are shown in later chapters (see Figs. 364 and 421).

Doubtless the most interesting is the first (Fig. 252), where twice in the same illustration the Earl is represented fully armed, his fine harness covered with the surcoat. The scene represented is the siege of Rouen. On the left King Henry V, also wearing the tabard surcoat, is giving to the Earl the charge of Port Martevyle, and on the right the Earl is seen standing, armed to all points, in front of his tent. It will be noted that the Earl's surcoat is encompassed around the waist by his sword belt, while that of the King hangs loose. The second representation (Fig. 253) shows the Earl again, this time at the siege of Caen, fully armed save his head, but still wearing the surcoat tabard. Two other representations of the Earl (Fig. 254) illustrate the same tabard worn in the jousts at Guines, where the Earl's opponent was Sir Colard Fynes. The reason for the Earl figuring twice in so small a space is that as he had three times in succession vanquished Sir Colard Fynes in the joust, it was thought by some that he was fastened to his saddle, to disprove which idea he dismounted. The draughtsman has therefore shown him first riding his course, and then immediately behind in the act of remounting after he had refuted so unfair a charge. We could quote and give illustrations of many brasses and a few effigies that show the loose short tabard worn over the full armour at this period. These, however, might lead the reader to believe that the tabard was only put on for purposes of ceremony; whereas, as our quotation of contemporary evidence abundantly proves, it was frequently used in actual fighting and in the joust. We give as a final illustration of the surcoat tabard a most faithful likeness of one painted in minute detail, appearing worn over a complete suit of plate armour in the portrait of Count Philip Hinckaert,



FIG. 253. RICHARD BEAUCHAMP, EARL OF WARWICK, AT THE SIEGE OF CAEN

Cotton MSS., British Museum. The Warwick Pageant, drawn about 1485

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Governor of Tervueren, near Brussels, who died in 1460 (Fig. 255). The picture from which the figure is chosen was formerly in the collection of the late Mr. Charles Crews, and was classed under the heading of the School



FIG. 254. RICHARD BEAUCHAMP, EARL OF WARWICK, AT THE JOUSTS AT GUINES  
Cotton MSS., Brit. Museum. The Warwick Pageant, drawn about 1485



FIG. 255. COUNT PHILIP HINCKAERT, GOVERNOR OF TERVUEREN, NEAR BRUSSELS

He died in 1460. The picture, classed under the school of Brabant, was probably painted about 1480  
Collection: The late Charles Crews, Esq.

of Brabant. As we have said, Count Philip died in 1460; but this posthumous portrait was probably painted about 1480 to 1490, at least if we may judge by the fashion of the knight's armour.

## CHAPTER VIII

### THE BASCINET HEAD-PIECE: A RECORD OF IT FROM THE EARLY YEARS OF THE XIII<sup>TH</sup> CENTURY TO THE CLOSE OF THE XV<sup>TH</sup> CENTURY



UP to the present, beyond alluding generally to the bascinet, the only head-pieces we have described in detail are the hemispherical steel cap, worn either over or under the mail coif, and the very primitive helm which superseded the cylindrical helmet of the latter part of the XIII<sup>th</sup> century, which helmet in its turn had taken the place of the conical helmet of the XII<sup>th</sup> century. We have now, however, in the case of the bascinet, to deal with a head-piece coming into greater prominence than any heretofore mentioned, and which holds almost uninterrupted sway for the next 150 years. This helmet is first mentioned as early as 1214, when Guillaume Guiart speaks of "*Li yaumes et baseinez reluire*," and may be said to have had its birthplace in Italy, whence it was introduced into France, subsequently to reach England. Its very name, derived from the ancient French word *baycin*—a basin—makes it applicable to any form of hemispherical head-piece; but we will follow the invariable custom of applying it to this kind of head-piece after it had ceased to be merely the shell underlying the mail coif, that is to say, when it became a distinctive helmet worn either over the mail coif or with the camail actually attached to it.

In the transitional years of the XIII<sup>th</sup> and XIV<sup>th</sup> centuries, the bascinet was in the form of a low cap, bluntly pointed, and not assuming the gracefully keel-like form characteristic of the same head-piece a hundred years later. There was formerly in the collection made by Herr Hefner-Alteneck an early bascinet (Fig. 256) which that learned antiquary considered to belong to the end of the XIII<sup>th</sup> century; we, however, hold that it would be more accurately placed at the end of the first quarter of the XIV<sup>th</sup> century. It is, notwithstanding, an excellent example of one of the earliest forms of this type of helmet. It will be noticed that around its lower edge is a series of small holes. These were not for the purpose of attaching the camail, as stated by Dr. Alteneck, but were merely for retaining in position

## EUROPEAN ARMOUR AND ARMS

the padded lining. How the bascinet was transformed in the process of time will be noticed by comparing the form of this helmet with that of one of its late open forms (page 247, Fig. 290). The first development to be noted in the bascinet helmet of the early years of the XIVth century is the introduction at the back of the skull-piece of a globose swelling, which made the helmet look very like an egg from the lower end of which one-third had been sliced off. Of such a bascinet an excellent example is to be seen in the oaken effigy attributed to Robert du Bois, one of the lords of Fersfield in Norfolk, who died in 1311 (Fig. 257). This bascinet is for its period the highest in the crown of any with which we are acquainted. It is also to be noticed that the lower edge of the helmet is straight all the way round, like that of a cabasset helmet of the XVIIth century, and by not falling lower at the back fails to protect the neck. Strangely enough, the Bois bascinet is painted so as to give the idea that the original helmet was covered with material decorated with an ermine pattern. Blomefield, the historian of Norfolk, in his book published in 1739, states that "His [Robert du Bois] helmet and gauntlets were powdered with ermine, as was every other folding of his military cassock," and adds at the end of his description of the effigy: "I caused it to be painted in the same colours as near as could be." The method of attaching the helmet to the camail is not shown in this wooden effigy; but, inasmuch as there is no indication of aiglettes, of rivets, or of holes of any kind, it may almost be surmised that in this primitive form of conical bascinet the helmet was sometimes placed over the coif of mail, as in the case of the helmets of earlier times, and had not the camail attached to it. A second bascinet of this tall egg-shaped form, with the straight lower edge, is seen on the effigy of Sir Richard Pembridge in the cathedral church of Hereford (see pages 276, 277, Fig. 324); but here the attachment of the mail tippet by the staple and cord principle is distinctly defined (Fig. 258). Yet another bascinet of this egg form, but of rather smaller proportions, is seen on the effigy of Sir Roger de Kerdeston in Reepham Church, Norfolk (Fig. 259). In this case the attachment of the camail to the helmet is most clearly defined, and the cord and staple principle in almost its finite form is very carefully represented. A bascinet helmet very much of the drawn out egg-shape form, which we feel safe in assigning to the first quarter of the XIVth century, may be seen in the Musée d'Artillerie, H 26 (Fig. 260). Like all the bascinets we have referred to up to the present, it apparently was visorless; for there are neither pivot holes at the side, nor rivet holes in the front of the skull, by which any sort of face defence could have been

## THE BASCINET HEAD-PIECE

attached. The lower edge of the helmet is considerably destroyed by rust; but the original lower outline can be easily traced by following the close



(a)



(b)

FIG. 256. BASCINET HELMET ABOUT 1325-30

Collection: Herr Hefner Alteneck, now  
Dr. Bashford Dean, New York

(a) Profile view.

Collection: Herr Hefner Alteneck, now  
Dr. Bashford Dean, New York

(b) Three-quarter view.

row of holes pierced for the attachment of the lining. A very beautiful bascinet, but of a somewhat more advanced type, indeed a specimen that with safety could be dated at any period between 1330 and 1350, is in the



FIG. 257. THE EFFIGY OF SIR ROBERT DU BOIS, FERSFIELD CHURCH, NORFOLK

Showing the high crowned bascinet, about 1315. After Stothard



FIG. 258. THE EFFIGY OF SIR RICHARD PEMBRIDGE, K.G., THE CATHEDRAL CHURCH OF HEREFORD

After Planche



FIG. 259. THE EFFIGY OF SIR ROGER DE KERDESTON, REEPHAM CHURCH, NORFOLK

Showing the small egg-shaped bascinet, about 1330. After Stothard

collection of the late Mr. W. Burgess, bequeathed to the British Museum in 1884. It has suffered from corrosion, but it is still one of the most interesting specimens of its kind extant (Fig. 261). The iron staples, which nearly follow

## EUROPEAN ARMOUR AND ARMS

the lines of the edge of the bascinet, but cease over the forehead, were for fixing the camail, as previously described. The back rim of this helmet, which is said to have been found in an old castle at Naples, is cut away slightly to allow the head to be thrown back with greater ease. Between the staples and the edge of the bascinet are small holes counter-sunk on the outside, by which the lining of the helmet was sewn in. These holes follow exactly the line of the edge, and are continued over the forehead. There are two rivets over the centre of the opening for the face. It is difficult now to determine what their use may have been; but it is not improbable that they were employed for fixing such a movable nasal-guard, as is seen on the



FIG. 260. BASCINET HELMET

About 1325. H 26, Musée  
d'Artillerie, Paris



FIG. 261. BASCINET HELMET

About 1330-50. Ex Burgess Collec-  
tion, now in the British Museum,  
said to have come from Naples

monuments to Albrecht von Hohenlohe (d. 1319) (Fig. 262), to Günther von Schwartzburg (d. 1349) (Fig. 263), and to Ulrich Landschaden (d. 1369) (Fig. 264). A fine example of such a nasal-guard, found on a statue at Freiburg, is given by M. Viollet-le-Duc (vol. v, p. 189). He says that the statue comes from the tomb of Berchtoldus at Freiburg (Fig. 265), and attributes it to the end of the XIIIth century; but it is certainly of later date.

All the monumental evidences showing this curious arrangement of the lifting nasal-guard which we have given so far, have been of German origin, though Germany was not solely responsible for the fashion. In Italy, can be found the equivalent, as seen, for instance, in a sculpture on one of the capitals on the colonnade of the Doges' Palace, Venice, a sculpture attributed

## THE BASCINET HEAD-PIECE

to the hand of Pietro Baseggio early in the XIVth century, which gives a full-faced representation of a knight whose head-piece is an almost hemispherical bascinet. The staple and cord tackle attaching the chain camail are clearly defined; while the portion of the mail that could be lifted to form a facial guard hangs below the chin, and is fastened by means of a catch to a



FIG. 262. FROM THE MONUMENTAL SLAB OF ALBRECHT VON HOHENLOHE (d. 1319)

Schonthal Church. From Bon-telle's "Monumental Brasses"



FIG. 264. ULRICH LAND-SCHADEN (d. 1369)

From his monument at Necken - Steinach, near Heidelberg



FIG. 265. FROM THE TOMB OF BERCHTOLDUS AT FREIBURG

After Viollet-le-Duc



FIG. 263. FROM THE MONUMENTAL SLAB OF GÜNTHER VON SCHWARTZBURG (d. 1349)

*Kaiser Dom* of Frankfort

cross-shaped bolt in the forehead of the skull-piece. A clever reconstruction of a bascinet which is in the collection of the late Mr. Frederic Stibbert, bequeathed to the city of Florence, gives an excellent illustration of the actual appearance of a chain mail nasal-guard, raised and attached to the skull of the bascinet (Fig. 266). This chain mail nasal-guard may have been the face protection of that splendid helmet in the Wallace Collection

## EUROPEAN ARMOUR AND ARMS



FIG. 266. RECONSTRUCTED BASCINET  
WITH RAISED CHAIN MAIL VISOR  
In the fashion of about 1340. Collection:  
Frederic Stibbert, Esq., Florence



FIG. 267. FROM A MONUMENTAL SLAB  
The Pinacoteca, Turin



FIG. 268. FROM THE TOMB OF MANNO  
DONATI  
The church of St. Antony at Padua

which we have placed in the rather mysterious category of the "barbute" (Chapter XI, Fig. 423). Other Italian sculptural representations of a bascinet with such a face guard can be seen on the monumental slab of an unknown knight, now preserved in the Pinacoteca of Turin (Fig. 267), and on the effigy on the tomb of Manno Donati in the church of St. Antony at Padua (Fig. 268). Donati died in 1370.

A small bascinet of this type, found in Northern Italy, was at one time in the market. The skull was much damaged and repaired; but it was a thoroughly genuine piece and most interesting, as showing the two hooks for retaining the nasal-guard when raised (Fig. 269, *a, b*).

In addition to the bascinet's plain form of skull-piece, we must draw attention to the fluted and otherwise decorated examples that occur in a few instances on effigy and brass, but of which no actual helmet is extant. That bascinets with enriched skull-pieces did exist in reality, as well as in the mind of the sculptor, there can be little doubt; for they figure constantly in contemporary brasses and portrait illuminations. The type of head-piece referred to is a bascinet with the skull-piece either fluted or in some way fancifully decorated. This kind of helmet is well illustrated on the brass of Sir John d'Aubernoun the younger (1327) in Stoke d'Aubernon Church, Surrey (Fig. 270), and also on that of Sir John de Creke (1325) (Fig. 271) in Westley Waterless Church, Cambridgeshire. In both these cases the skull-piece is definitely fluted, and finishes at the apex in an applied cruciform pinnacle; both these bascinets are cut

## THE BASCINET HEAD-PIECE

away round the forehead. We are very much inclined to think that the originals of these particular head-pieces, and of others like them, were actually of East-



(a)



(b)

FIG. 269. BASCINET HELMET WITH HOOKS FOR AN UPLIFTING NASAL-GUARD  
About 1340. Found in Northern Italy.

(a) Profile view.

(b) Front view.

ern, probably of Saracenic, workmanship; they remind us irresistibly of the Crusades, from which they were probably brought as valuable souvenirs. This is a supposition supported by the fact that there are many so-called Turkish and



FIG. 270. FLUTED BASCINET HELMET

From the brass of Sir John d'Aubernoun the younger (1327), Stoke d'Aubernon Church, Surrey  
After Stothard



FIG. 271. FLUTED BASCINET

From the brass of Sir John de Creke (1325), Westley Waterless Church, Cambridgeshire  
After Stothard

Saracenic helmets which, from inscriptions upon them, can with certainty be assigned to the XIIIth and even to the XIIth century, and which, were they completed with European fittings, would have exactly the appearance of the two bascinet helmets on the brasses referred to. Many of these fluted and

## EUROPEAN ARMOUR AND ARMS

otherwise decorated bascinets must originally have been most richly studded with jewels, and garnished with gold and enamel, of which at a later date they were doubtless despoiled. The iron foundations, which were of an unusual pattern, would then be left behind in their denuded and consequently battered condition; and it can easily be understood that when the fashion changed even the common soldiery would discard these bascinets as being too dilapidated for use. We may therefore fairly consider this to be the reason why no bascinet helmet other than those of the more ordinary type exists to-day.

The decoration of the helmet, not only that of the bascinet, but of every form of head-piece, was in the XIIIth and XIVth centuries carried to an



(a)



(b)

FIG. 272. FROM THE EFFIGY OF SIR HUGH CALVELEY (1390), BUNBURY CHURCH, CHESHIRE

Showing the jewelled orle. After Stothard

(a) Full face; (b) Profile view



FIG. 273. RUBY FROM THE STATE CROWN OF ENGLAND

Which, according to well founded tradition, was worn in the helmet of Henry V at Agincourt, 1415. From a drawing of the jewel itself. Size of the original

extreme. An example can be seen in the effigy of Sir Hugh Calveley in Bunbury Church, Cheshire (Fig. 272, a, b); we have also evidence of excessive decoration in the accounts of Etienne de la Fontaine, Silversmith to the King of France (John III) in 1352. "*Poure faire et forger la garnison d'un bascinet c'est a savoir 35 vervelles [rings or staples], 12 bocettes [bosses] pour le fronteau tout d'or de touche et un ecouronne d'or pour mettre sur icelui bascinet, dont les fleurons sont des feuilles d'espines, et le circle diapré de fleur-de-lys. Et pour forger la couroye a fermer le dit bascinet dont les clous sont de bousseaux et de croisettes esmaillées de France.*"

To follow the subject further, in the Crown of England we can point to a ruby of great beauty of colour, which, according to tradition, was worn

## THE BASCINET HEAD-PIECE

by Henry V in his helmet at Agincourt in 1415 (Fig. 273). This is a large spinel ruby of irregular drop-like form, measuring nearly 2 inches in length,



FIG. 274(a). BASCINET HELMET MIDDLE OF THE XIVTH CENTURY

Found beneath an oak tree in a village in Russian Poland. Now in the treasury of the cathedral of St. Stanislaus at Cracow

posed to have given it to Edward the Black Prince after the battle of Nejera, near Vittoria, in the same year. From the Black Prince it is said to have descended to King Henry V, who wore it in his crown at Agincourt, when it is recorded that the King's life was saved from the attack of the Duc d'Alençon by the protection afforded him by his Crown, a portion of which, however, was broken off.

Another mention of jewels attached to a bascinet head-piece is made by Froissart, who describes the bascinet of the King of Castile in 1385:

and highly polished on what is probably its natural surface. Its irregular outline makes it possible to recognize the place that it has formerly occupied in the older state crowns, but it seems always to have been given the place of honour. It is pierced after an Oriental fashion, and the top of the piercing is filled with a supplementary ruby set in gold. Don Pedro, King of Castile, murdered the King of Granada in 1367 for the sake of his jewels, one of which, so tradition has it, was this ruby; Don Pedro is sup-



FIG. 274(b). CROWN FOUND WITHIN THE HELMET (Fig. 274a)

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*“Avoit une cercle d'or ouvragé sus de pierres precieuses qui bien valoient vingt mille francs.”*

To our knowledge the only bascinet helmet extant to which a crown might have been attached is that now preserved in the treasury of the cathedral church of St. Stanislaus belonging to the royal Polish castle of Cracow, situated on a rocky eminence called the Wawel Hill. The story attached to the helmet and the crown found within it is that it belonged to the hero-king Wladislaus I, “Lokietek” (“Spanlong”).



FIG. 275. SMALL BASCINET HELMET WITH CURIOUS HINGED NASAL-GUARD  
First half, XIVth century. Royal Armoury, Turin

The helmet (Fig. 274 *a*) is a bascinet with a low skull-piece. Attached to the lower edge still exist the staples for holding the camail in position. In the centre of the forehead is a catch, on to which a lifting nasal-guard was probably fastened. The head-piece is much corroded, in consequence of it having been

found some five years ago in a village in Russian Poland buried under an oak tree. Discovered inside the helmet was a crown of metal gilt, adorned with sixty-



FIG. 276. FROM THE EFFIGY OF JOHN FITZ-ALAN, EARL OF ARUNDEL, ABOUT 1430  
Chancel of the church at Arundel  
After Stothard



(*a*)



(*b*)

FIG. 277. FROM AN EFFIGY OF A BLANCHIFRONT, ABOUT 1440  
Alvechurch, Worcestershire  
After Stothard

(*a*) Profile view; (*b*) Full face view

five precious stones (Fig. 274 *b*). The crown, the upper edge of which is shaped to four fleurons, has hinges between the four segments, which strengthens our belief that it was made to fasten round the bascinet helmet within which it was found, more especially as twin holes in the skull-piece of the bascinet corre-

## THE BASCINET HEAD-PIECE

spond with twin holes in the lower edge of the crown, suggesting that it might have been fastened to it by means of aiglettes. We cannot, however, imagine why this unique and interesting relic should have been associated with the name of King Wladislaus Lorietek, who died in 1333; since if it belonged to a King of Poland we should consider it, from its fashion, more likely to have been worn by the son of King Wladislaus, Casimir III (1333-76).

Save for the reference made to it in our account of the lifting nasal-



FIG. 278. BASCINET HELMET WITH UPLIFTING VISOR

Third quarter, XIVth century. Collection: Sir Edward Barry



FIG. 279. BASCINET HELMET

Third quarter, XVth century. Poldi Pezzoli  
Museum, Milan

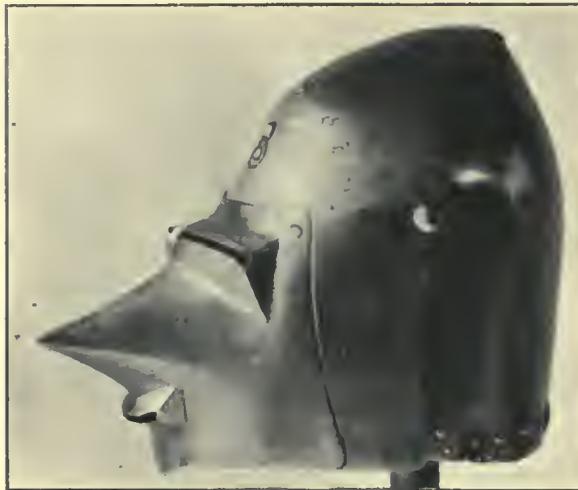
(14th.?)

the skull-piece, in the manner of the first form of visors we are about to describe. This little bascinet was found at Bores and was given by the municipality to the Royal Armoury of Turin. In the catalogue of that

guard, we have hitherto neglected the visored bascinet; although it made its appearance in the latter half of the XIIIth century, and is spoken of as early as 1270 by Guillaume Guiart, "*et clers bacinez à visières.*" There is a little head-piece in the Royal Armoury of Turin (No. 176 in 1890 Catalogue) with the skull of the early egg-shaped form which possesses what we believe to be a quite unique face-guard (Fig. 275). This takes the form of a nasal-guard armed with eight pyramidal spikes, four down either edge, not lifting from the camail, but actually hinged to the centre of the forehead of

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armoury it is assigned to the XIIIth century; but it would probably be more correctly placed in the first half of the XIVth century.



(a)



(b)

FIG. 280. VISORED BASCINET HELMET  
Formerly in the Brocas Collection, now in the  
Tower of London (Class IV, No. 6). The  
alterations to the visor are noticeable  
(a) Profile view, with visor lowered; (b) Profile  
view, visor raised

It is a noteworthy fact that but few of the bascinet helmets represented on the effigies of the first quarter of the XIVth century show either the visor, which we know to have been in use at this period, or even rivets or other traces of its attachment at the sides or on the forehead. We may perhaps find an explanation of this in the custom that prevailed of always portraying the face on an effigy, and in the difficulty of constructing an uplifted visor in the material in which the effigy was fashioned. If the visor was purposely omitted, we should not necessarily expect to find traces of its attachment. In one or two cases, however, such traces are to be found, a circumstance which lends support, rather than otherwise, to the theory that the visors were purposely omitted. An effigy of John Fitz-Alan, Earl of Arundel, though of later date than that with which we are now dealing, shows a bascinet with visor removed; here can be seen not only the rivets, but the small plates with part of the hinge to which the visor was attached (Fig. 276). Stothard illustrated an effigy said to be that of a Blanchfront in Alvechurch, Worcestershire, of about 1340, on which is a very advanced form of salient visor. The ocularium is almost Maximilian-like in its completeness; but the lower part of the visor has been considerably damaged, and it is difficult to determine its original outline (Fig. 277, *a*, *b*).



FIG. 281*a*. BASCINET HELMET

Third quarter of the XIVth century, but altered in form at a later date. Formerly in the Meyrick Collection, then in the Collection of Sir Noël Paton, now in the Royal Scottish Museum, Edinburgh

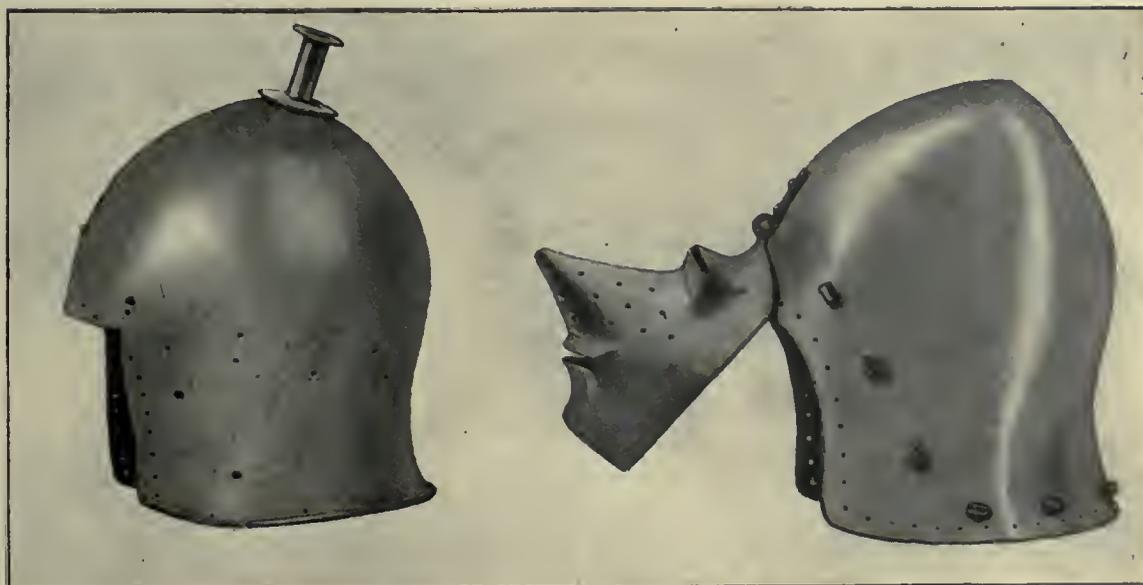


FIG. 281*b*. THE NOËL PATON BASCINET

As it now is, showing the alterations made in it in the XVIth century

FIG. 281*c*. THE NOËL PATON BASCINET

As it must have appeared when made in the third quarter of the XIVth century

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Of the visored bascinets that are actually in existence we are able to illustrate a number and to describe others. The helmets with which we now have to deal are those provided with the beaked visor and known as the pig-faced bascinet; they may be divided broadly into two classes, those which have

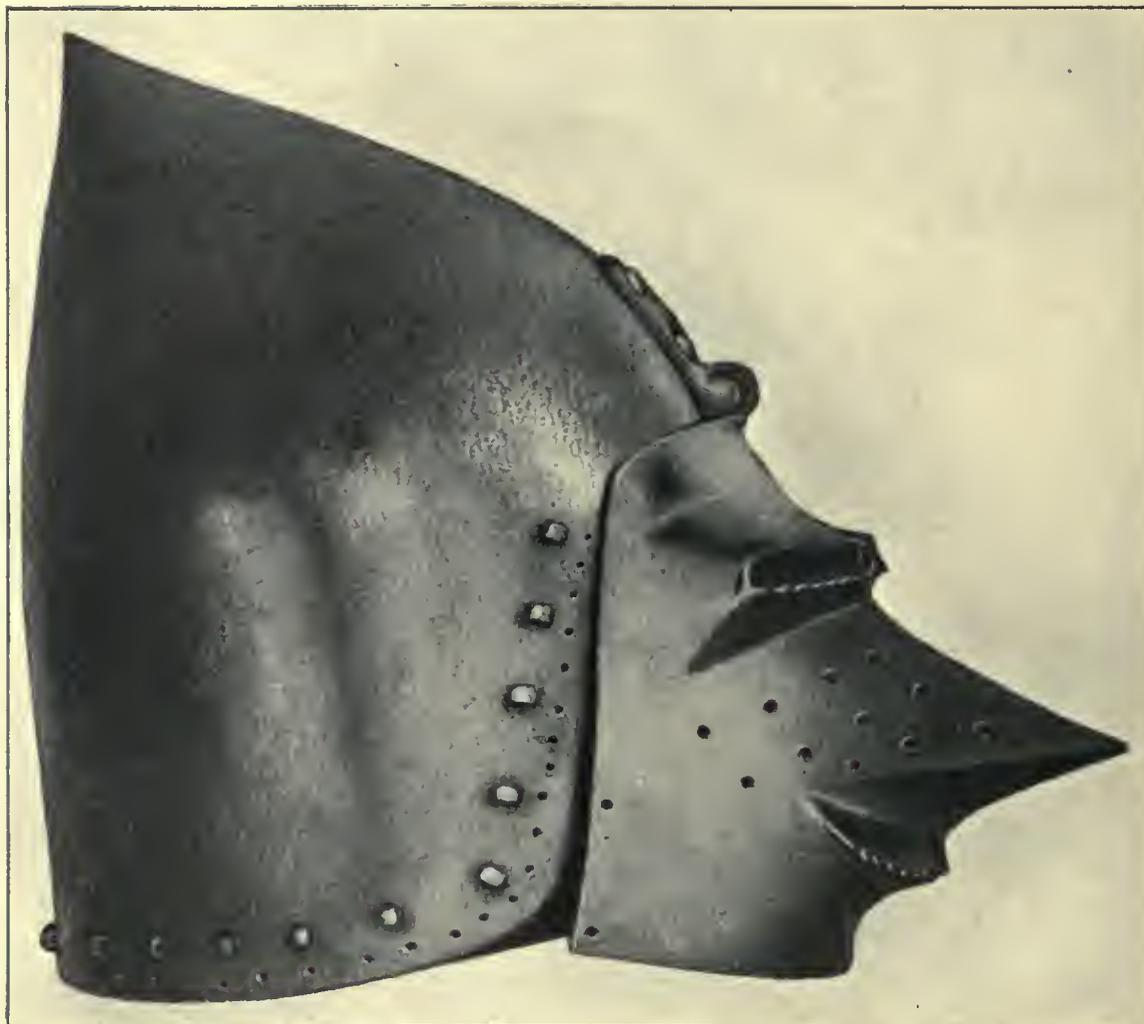


FIG. 282. VISORED BASCINET, LATE XIVTH CENTURY

Formerly in the Collection of Herr Hefner-Alteneck, now in that of Viscount Astor at Hever Castle

the visor attached by a hinge over the forehead, which are, generally speaking, the earlier type, and those in which the visor is attached by a pivot at either side of the helmet. In the collection of Sir Edward Barry at Ockwells Manor, there is one of the earliest complete bascinets that can be found in English collections, a helmet which may safely be assigned to about 1370-80 (Fig.

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278). It has, unfortunately, suffered from rough handling and too vigorous cleaning—at least from a collector's point of view; but as an example of its type it is remarkable. It will be noticed that the skull-piece is of the egg-shaped form which is associated with the bascinets of the first half of the XIVth century. The lower edge of the helmet has been slightly damaged, and appears to have been altered from the original design. At a distance of half an inch from the lower edge runs the series of holes by which the lining was held; they are unusually large, and somewhat clumsily drilled. One of the most arresting features of the helmet is the formation of the staples made to retain the camail in position: they are cylindrical and fully an inch long. The visor is raised on a somewhat roughly made hinge in the centre of the forehead, the plate of which is attached by two rivets to the skull-piece. The small ocularia, which have serrated edges, protrude from the visor, and the provision made for respiration is on the same principle. This helmet shows the curious small triangular plates fixed edgeways round the lower part of the skull-piece and just above the staples for the camail, which, in the opinion of the Baron de Cosson, were added for the purpose of deflecting a downward blow which might otherwise damage the attachment of the camail to the helmet. In the Poldi Pezzoli-Museum at Milan can be seen two bascinet helmets which once possessed visors attached by a forehead hinge. They are both much perished by rust, but we illustrate the better of the two (Fig. 279). On both helmets there remain round the base of the skull-pieces those curious triangular plates fixed edgeways which we have just referred to in the case of the Barry bascinet.

Another very interesting visored bascinet is to be found at the Tower of London armoury (Fig. 280, *a*, *b*). The visor of this example may claim the latter part of the XIVth century as the period of its manufacture, but the skull-piece is a fine genuine production of the early years of the next century. The two parts were wedded as they now appear, we may suppose, early in the XIXth century, for so associated they appeared at the sale of the Brocas Collection in 1834. It will be noticed that originally the visor



FIG. 283. VISORED BASCINET, LATE XIVTH CENTURY

Formerly in the castle of Herr von Hulshoff, near Munster. Now in the Metropolitan Museum of New York. Front view, showing the dome-like shape of the skull-piece



FIG. 284. BASCINET HELMET WITH ITS VISOR ATTACHED  
Second half of XIVth century  
In the arsenal of Coburg. Profile view

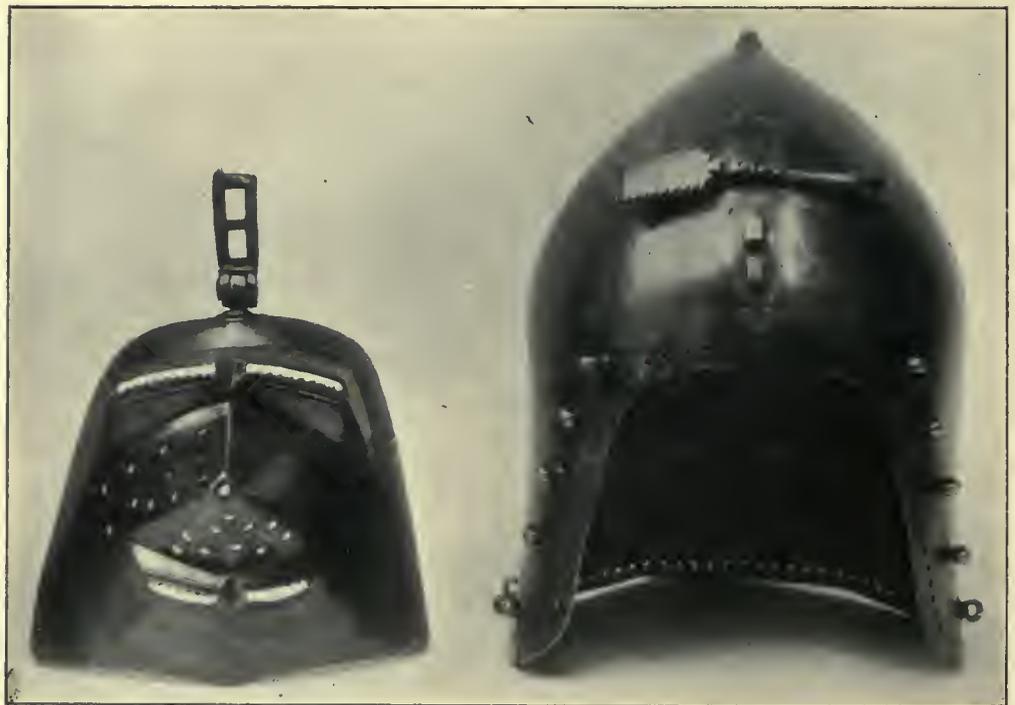


FIG. 285. FRONT VIEW OF THE BASCINET  
In the arsenal of Coburg, also showing its pig-faced visor detached  
240

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was of a type that was lifted on a hinge above the forehead, like those we have just referred to. When it was adapted to the skull-piece to which it is now attached it was made to work on pivots placed at either side of the helmet. That the additions made for lengthening the visor at the sides for this purpose are modern is apparent even in the illustration. At the same time must have been added the rivets with rosette-shaped washers that were fastened into the holes that once held the staples intended for the attachment of the camail. Strangely enough, exactly similar brass washer rivets were, until they were recently removed, to be found upon the Wallace bascinet formerly in the Meyrick Collection. The Tower bascinet, although



FIG. 286. BASCINET HELMET WITH HEMISPHERICAL VISOR  
Probably Swiss, about 1390-1400. Valeria Museum, Sitten, Canton Wallis, Switzerland  
(a) Front view; (b) Profile view

composite, is one worth careful study; for both parts are individually pieces of great interest.

The bascinet helmet formerly in the Sir Noël Paton Collection, now in the Royal Scottish Museum, Edinburgh, is well known as having figured in publications on the Meyrick Collection and in many standard works (Fig. 281, *a*, *b*, *c*). At the first glance it would appear from its general form to be a *salade* of the *celata* type belonging to a later date; but on close inspection there will be found many points about it which prove that it was originally a visored bascinet made in the third quarter of the XIVth century, with a skull-piece very similar in shape and detail to the early Burgess bascinet in the British Museum (Fig. 261, page 228). First of all it will be noticed that the pointed apex, characteristic of these bascinets, has

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been hammered down, and then perforated for the insertion of the tubular plume-holder which we now see, an addition made, we believe, early in the XVIth century. Next, if we trace the line of small holes used for securing the lining of the helmet, we shall note that the holes run over the forehead and down the edge of the cheek-piece only, but have been cut away around the lower edge of the helmet. From the fact, too, that this row of holes has been cut into at the top of the cheek-piece, it is evident that the original outline of the helmet has here also been altered (Fig. 281, *b*). By following in imagination this series of holes along an edge about one and a half



FIG. 287. HEMISPHERICAL VISOR OF A  
BASCINET HELMET

Probably Swiss, about 1400. In the Landes  
Museum, Zurich



FIG. 288. BASCINET HELMET WITH HEMI-  
SPHERICAL VISOR

Possibly French, about 1410-20. H 22, Musée  
d'Artillerie, Paris

inch lower, the helmet can be reconstructed, and can easily be seen as a bascinet of similar design to that of the Burgess example except at the back base of the skull-piece, where it must have always flanged outwards, as seen on the so-called barbute (Fig. 423, page 350). Again, above this series of small holes, are larger holes at a greater distance apart, into which fitted the staples which secured the camail. A series of twin holes, too, runs round the skull-piece, which Sir Samuel Meyrick suggested were for the attachment of the chaplet or orle. They appear, however, to be too low down for that purpose, and it is more likely that at a later date, when the helmet was transformed into a *salade* and most of the original lining holes were cut away, they were made for securing the lining. Above the centre of the face-

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opening are two holes which also appear on the Burgess bascinet. These, no doubt, originally held the rivets of the hinge on which a visor worked (Fig. 281, *c*).

Viscount Astor, collecting specimens for his newly formed armoury at Hever Castle, in Kent, had the good fortune to purchase at the sale of the late Herr Hefner-Alteneck's Collection in Munich, the superb bascinet which has been described, and we think justly, as the finest specimen of its kind extant. It is a helmet of the third quarter of the XIVth century, with a pig-faced visor working on a hinge fixed to the forehead. The ocularia and holes for respiration opposite the mouth protrude in the usual fashion of these visors, the lower edge of the former and the upper edge of the latter being serrated. The skull-piece has a bold and somewhat exaggerated outline, the apex being drawn out into a delicate point. This form is of a later type than those previously mentioned. It should be noticed that the apex, which was in the more primitive bascinet in the centre of the skull-piece, recedes further and further towards the back of the head as the years advance, until in the latest type the line of the back of the helmet is almost perpendicular to the bottom edge. The full complement of staples, twenty-four in number, for securing the camail are in position, and the series of lining holes running round the edge also appears. The whole helmet bears traces of having been originally painted with a design of jagged flames on both the crown piece and the visor (Fig. 282).

A bascinet helmet that may be placed on practically the same level in respect of quality of workmanship as the last mentioned specimen was obtained by the Metropolitan Museum of New York when it purchased *en bloc* the collection of the Duc de Dino. The helmet in question was acquired by the Duc de Dino from M. Chabrières-Arlés, who purchased it in 1888 at the sale of the famous Londesborough Collection in the catalogue of which it was described as coming from the castle of Herr von Hulshoff, near Münster, in Westphalia (Fig. 283). The skull-piece of this bascinet, which is fairly high, and shaped like a mosque-dome, terminates in a sharp point turned slightly towards the back. The sides of the skull, which cover the cheek, come a little forward towards the chin, after the style of the helmet we have ventured to class as the "barbute" (see Fig. 423). The staples for attaching the camail were replaced some time in the XVIth century by round-headed rivets. The internal lining, which was at first sewn in by means of small holes round the edge of the helmet, was at the same period replaced by another, a fragment of which still remains attached by

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the rivets. The visor, the "snout" of which is very accentuated, is attached to the skull-piece by a strong hinge riveted to the front of the skull-piece. This hinge could formerly be raised by turning a catch piece. In order to avoid the carrying away of the hinge by a lance blow, it was fixed at its upper surface by a small iron band firmly riveted to the skull-piece, which hinge still exists, and which terminates at the top in a dog's or lion's head. This method of attachment is very characteristic of the German bascinet, and is to be found represented on German monumental effigies of the second half of the XIVth century. The visor has two horizontal ocularia with projecting edges, also round holes on the left side of the "snout" for breathing, and one single slit at the level of the mouth. The skull-piece bears an armourer's mark, rather worn, near the point of attachment of the visor.

This Dino bascinet is of the foremost importance, is probably of German provenance, and may be dated at about 1370. Its chief difference from the Hefner-Alteneck example consists in the strongly marked dome or bell-shaped formation of its skull-piece. One of the notable examples of bascinets which carry this particular formation to an almost grotesque degree is that to be seen in the *Schloss*, Coburg (Figs. 284 and 285). It is perhaps one of the finest of its kind extant; for not only is the head-piece, with its curiously snouted visor, in most perfect preservation, and very solid in workmanship, but even its surface retains its original blue colour. Through the courtesy of the Director of the Coburg Museum, a courtesy, we should add, extended to us some years ago, we are able to give excellent pictures of this remarkable head-piece. The late Herr Hefner-Alteneck in his *Trachten* gives an engraving of the statue of Hartmann von Kroneberg, who is shown wearing a bascinet head-piece much like the Coburg example. Since Hartmann von Kroneberg died in 1372 we may conclude that the Coburg helmet dates from about that time. The helmet is carefully engraved in Heideloff's *Ornaments du Moyen Age*.

One of the most complete and remarkable bascinet helmets fitted with the lifting visor is that which is shown in the Valeria Museum at Sitten, Canton Wallis, Switzerland (Fig. 286, *a*, *b*). Here can be seen the small egg-shaped crown piece, with the cylindrical staples around the border for the attachment of the camail and the elaborate hinge above the forehead for the fitting of the visor, features both of which we have noticed in other such skull-pieces of these times. It is, however, the visor that is remarkable; for though the ocularia are boxed out as they are on the pig-faced visors,

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that part of the visor covering the chin and mouth is not acutely pointed but *bombé* in form with a central ridge, its lower edge being pointed and finishing in a small outward curl. There is an almost obliterated armourer's mark upon the skull-piece. This bascinet is probably Swiss of about 1390-1400. We know of no other bascinet of this period furnished with a visor quite of this type; but a detached visor much resembling it in form was excavated in Canton Solothurn, Switzerland (Fig. 287), and is now in the Landes Museum, Zurich. This visor is, however, more akin to the true pig-faced type; for though it is not pointed it is drawn out into a hemispherical snout, and is thus the direct prototype of those hemispherically-visored bascinets of the early part of the XVth century, which can be seen in the Musée d'Artillerie of Paris, H 22 (Fig. 288). In the case of this example, however, the visor is hinged at the side in the manner of those we are about to describe.

There is in the Musée Cluny, Paris, a very remarkable bascinet visor, a visor of the type to which we have been alluding, which must have been hinged to the forehead of the skull-piece. The face guard in question has a most curious profile, the ocularia being of eye-form and so influencing the whole shape of the upper half. The snout is very pronounced, and the spiracula with their accompanying protection ridges are most elaborate: indeed, the present writer believes this to be one of the most unusual bascinet visors extant. It is absolutely genuine, and dates from the end of the XIVth century. It is impossible to hazard a guess at its nationality.

The visored bascinets of which we shall now speak are all of the more advanced form. They have the visor hinged on either side of the skull-piece; they are larger, too, and they belong to the exaggerated pig-faced type. A fairly complete list of these particular helmets can be made out; but we shall discuss in detail only some of the more important ones, omitting with reluctance many contained in foreign armouries, which for various reasons we have not had the opportunity of personally inspecting.

The Wallace bascinet, No. 74 (Fig. 289), was formerly in the collection of Sir Samuel Meyrick, and was illustrated in "The Engraved Illustrations of Ancient Armour," by Joseph Skelton (Plate XIV, Figs. 4 and 5). It has a finely formed conical skull-piece, slightly ridged, and terminating in an acute point. A row of small holes follows the edge of the skull-piece for the attachment of the lining, the larger holes inside being made for the camail staples. The visor, which is of the accentuated pig-faced form, has on the right side thirty-five circular holes for breathing purposes. It is hinged on either side of the skull-piece immediately above the position of

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the ears, and could, by the easy process of withdrawing a pin, be detached from the skull-piece at pleasure. The brass staples that now attach the camail to the helmet are modern; though they are most accurately copied from existing examples. For the purpose of restoring the bascinet to its original appearance, these staples are now substituted for the rivets with rosette-

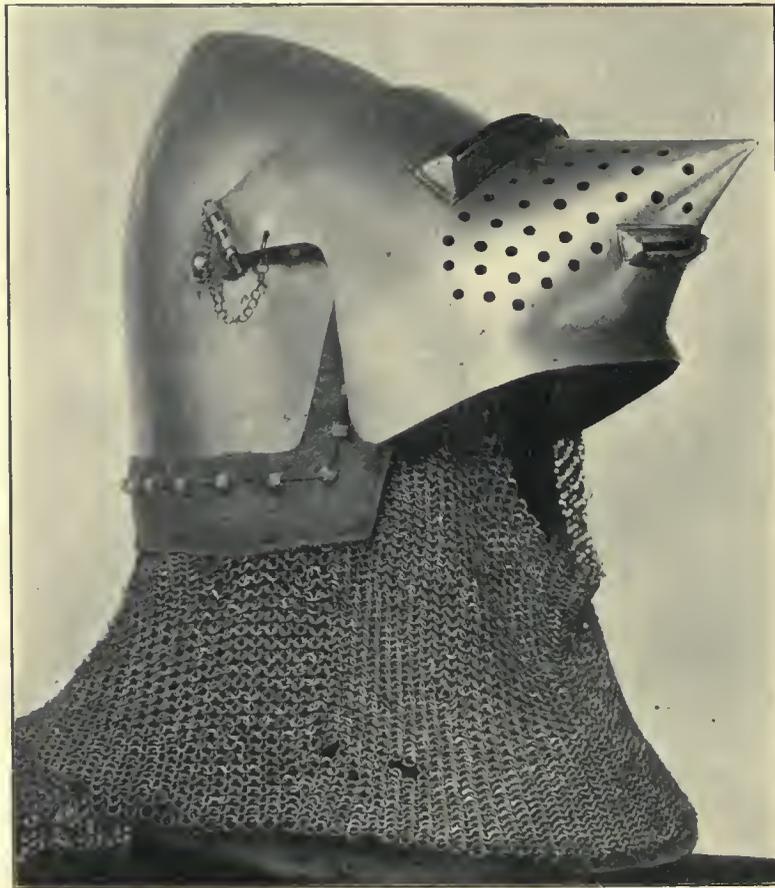


FIG. 289. VISORED BASCINET HELMET, LATE XIVTH CENTURY

Formerly in the Meyrick, now No. 74 in Wallace Collection, shown as at present arranged with the camail attached in the proper manner

headed washers which had apparently been added early in the XIXth century, and which, being similar to those which adorned the morions of the XVIth century, were entirely out of character with this bascinet. Even as early as 1832 Sir Samuel Meyrick had expressed his regret that some "foolish person" had added the XVIth-century rosette rivets to the bascinet; but, until the re-organization of the Wallace armoury in 1908, they were allowed to remain—a glaring anachronism.

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There is, in Sir Edward Barry's collection, the splendid skull-piece of a bascinet advanced in type, which may be considered as French, and as belonging to the end of the XIVth or to the commencement of the XVth century (Fig. 290). The visor is lost; but the hinges and rivets that held it remain *in situ*, and, with the skull-piece, are in a perfect state of preservation. It has a small circular hole on the forehead about five inches from the apex of the skull, which must have held a small catch for supporting the visor when raised, and not, as has been suggested, the hinge for attaching an

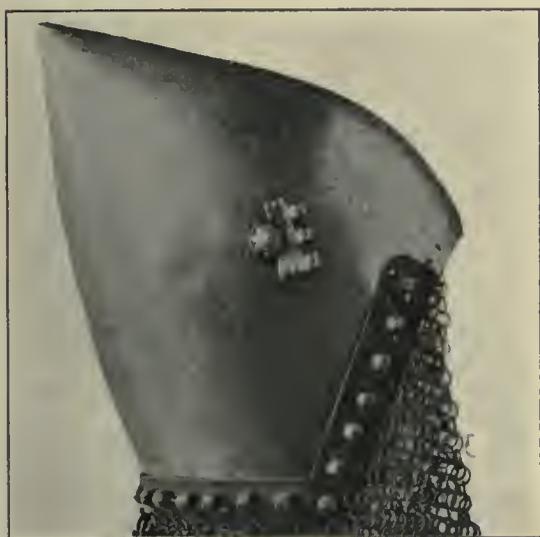


FIG. 290. SKULL-PIECE OF BASCINET HELMET,  
LATE XIVTH OR EARLY XVTH CENTURY

Said to have come from the arsenal at Zurich  
Collection: Sir Edward Barry



FIG. 291. SKULL-PIECE OF A BASCINET  
HELMET, MIDDLE XIVTH CENTURY

The visor was lifted from a hinge at the side  
Collection: H. G. Keasby

earlier visor. The hole is too small for a rivet of sufficient strength to bear the strain of the visor; moreover, the hinges remaining on either side of the skull are certainly original and contemporary with the helmet. The modelling of this helmet is remarkable, its apex being drawn out to an unusual length. The surface is admirable, and has not been over-cleaned. The edge of the skull-piece over the forehead is slightly chamfered. This helmet is said once to have been in the arsenal at Zurich, but to have been looted from that collection by one of the medical advisers of Napoleon I. Subsequently it passed into the possession of the late Herr Richard Zschille of Grossenhain, near Dresden, who found a visor for it, which, as in the case of the Tower specimen, was in itself a genuine piece, though much

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perished and not of a type suitable to the skull-piece. This visor has since been removed, and brass staples, modern but accurately copied from old ones,



FIG. 292. VISORED "GREAT" BASCINET HELMET, EARLY XVTH CENTURY  
In place of the camail of chain is substituted one of plate. H 24, Musée d'Artillerie, Paris

specimen with its camail of laminated steel plates (H 24)—a magnificent head-piece, but probably of early XVth century date. Its history is unrecorded (Fig. 292). The museums of Chartres and Nancy each possess a bascinet of the Wallace type. In France, too, in the famous Collection d'Arincourt, is a very splendid bascinet, one of a French late XIVth century form. M. Chabrières Arlés used to possess, in addition to the Londesborough example to which we have alluded, a fine Italian bascinet he purchased in Lyons nearly fifty years ago.

The collection of Mr. W. Riggs, which used to be in Paris, but is now

have been added, to which are now hung a camail. We can only cite one other genuine example of this type of head-piece from our English collections—that small skull-piece in the collection of Mr. Henry G. Keasby. It is fine in outline, though much perished through rust. The holes through which passed the rivets for the visor attachment show that the visor was originally hinged at the side. This skull-piece is earlier than the Barry example and may date from the middle of the XIVth century (Fig. 291). For further illustrations we look to the Continent, but we have to be on our guard against forgeries, which are only too plentiful.

The Musée d'Artillerie of Paris can show ten examples, among which is a unique



FIG. 293. SKULL-PIECE OF A BASCINET HELMET

The visor of which was hinged from the side. French, closing years of the XIVth century. Now in the Metropolitan Museum of New York

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part of the Metropolitan Museum of New York, shows, we understand, three examples of the bascinet helmet and the visor of a fourth, which, however, is of the type that was hinged above the forehead. But this entire collection is one of which we can speak with no personal knowledge.

In addition to the famous Londesborough bascinet, to which we have referred (Fig. 283, page 243), the Metropolitan Museum of New York shows three others, among which is the skull-piece of a very fine late XIVth century French example—a grand type (Fig. 293) to which is attached a romantic but entirely unsupported story that it belonged to Joan of Arc, the legend being that it came from the Church of St. Peter the Martyr at Orleans and was originally suspended there above the high altar as an *ex-voto* offering on the part of the

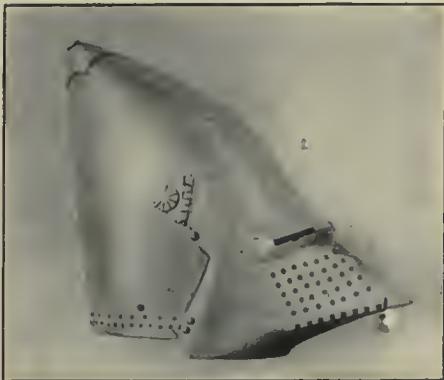


FIG. 294. VISOURED BASCINET HELMET,  
LAST YEARS OF XIVTH CENTURY

With remarkably drawn-out skull-piece;  
it has been restored at the apex  
Imperial Armoury of Vienna

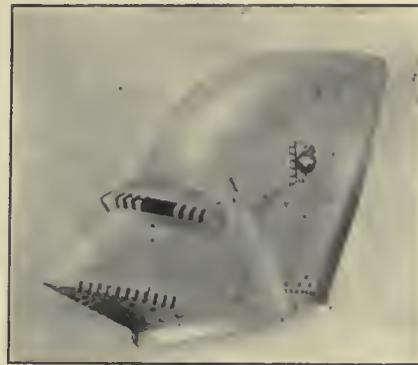


FIG. 294 (a). VISOURED BASCINET HELMET,  
LAST YEARS OF XIVTH CENTURY

The visor is somewhat unusual from its  
very large proportions  
Imperial Armoury of Vienna

Maid. The skull-piece bears as an armourer's mark a star with six points within a circle framed by a shield. This mark has been largely copied on the best of the modern forgeries.

Strangely enough, the wonderful Armoury of Vienna possesses two specimens only (Figs. 294 and 294a) and neither of these is remarkable for its quality. In Count Hans Wilczek's extensive collection at Kreuzenstein, outside Vienna, which boasts of possessing nearly every type of head-piece, there are displayed four specimens, three of which are, however, of more than doubtful authenticity. The Count, however, possesses a fine pig-faced visor of such a head-piece. A good and complete visored bascinet is shown in the *Zeughaus* of Berlin (Fig. 295); while there can be seen one specimen at Munich, two at Nuremberg, and an example at Brussels in the *Porte de*

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Halle. Judging, however, from a first impression we should say that the authenticity of the last mentioned bascinet is not above suspicion.

To come to Italy, the Royal Armoury at Turin possesses three specimens; while a fine visor of a bascinet, though of the type hinged above the forehead, is in the Bargello Museum of Florence. In Florence, too, there is a specimen belonging to the antiquary, Signor S. Bardini; this, however, is much corroded, and the visor, although an almost contemporary addition, is, as will be seen (Fig. 296), of the crudest form. In Rome the private collection of Prince Ladislaus Odescalchi can show a very fine complete bascinet with the snouted visor. Two of the finest bascinets in existence



FIG. 295. VISORED BASCINET HELMET,  
TRANSITIONAL YEARS OF THE XIVTH-  
XVTH CENTURY  
*Zeughaus, Berlin*



FIG. 296. BASCINET HELMET WITH A  
CURIOUSLY ADAPTED VISOR, LATE XIVTH  
CENTURY  
Collection: Signor S. Bardini, Florence

are preserved in the Schloss Churburg, belonging to Graf. G. Trapp, whose marvellous collection of inherited treasures continues to remain involved in a mystery unfathomed by the outer world. The existence of these helmets only came to our knowledge through an old and discoloured photograph surreptitiously made about thirty years ago. The two bascinets were taken side by side, and are apparently sister helmets of identical make. They are a wonderful pair, complete in all their detail, and enriched with borders of gilded brass bearing mottoes laudatory of certain famous beauties. With them are their contemporary bell-cuffed gauntlets. There is, in this wonderful castle, another bascinet even more astonishing; the visor is made in the curious form of two hinged doors opening down the middle of the face. It would appear to be of German fashion, of the closing years of the XIVth century; but unfortunately we could not even get drawings, much less obtain

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photographs of these marvels of late XIVth century armourer's craft. Graf Trapp zealously guards *Schloss Churburg*, permitting no visitors to approach, and refusing in recent years, at any rate, to answer even the politest of letters!



FIG. 297. CREST OF A BASCINET (ITALIAN),  
LATE XIVTH CENTURY

Mounted on a helmet of recent date  
Bargello Museum, Florence

Concluding our survey of existing bascinets that we can assign to the closing years of the XIVth century, we have now to describe and to illustrate a truly wonderful bascinet crest of about this date—a unique example in gilded copper preserved in the Bargello Museum of Florence. The illustration we give of it (Fig. 297), shows this superbly modelled crest as it now appears, mounted on a practically modern skull-piece, to which absurd side wings have been adapted. It is much to be regretted that this splendid example of cresting should be shown associated with this fireman-like modern helmet; the simple grandeur of its modelling and its very fine workmanship are

more than embarrassed by the vulgar additions. The eagle's head which constitutes this crest issues from an heraldic orle, and is executed in copper gilt embossed from fairly thin plate, and surface chased; two boldly outlined wings rise up at the back. Though solidly made, it is light in weight. That it was the crest of a bascinet and not of an armet or even later helmet we are satisfied from the fact that the interior is so made as to fit over the acute conical skull-piece of a late XIVth century helmet, *i.e.*, a bascinet. We have little hesitation in pronouncing it to be Italian, though nothing of its provenance is known. Though in this instance we have an example of a bascinet crest made of



FIG. 298. FROM THE  
MONUMENTAL SLAB OF  
JOHN, COUNT OF  
WERTHEIM, WHO DIED  
IN 1407

In the choir of the  
church of Wertheim

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metal, we may assume that generally their medium was some lighter material as shown in the case of extant helm crests of later date. John Hewitt, in "Ancient Armour and Weapons, etc.," quotes a document of Juan de Brabant, made out as early as 1293, that gives the price and the material used at that date as follows:

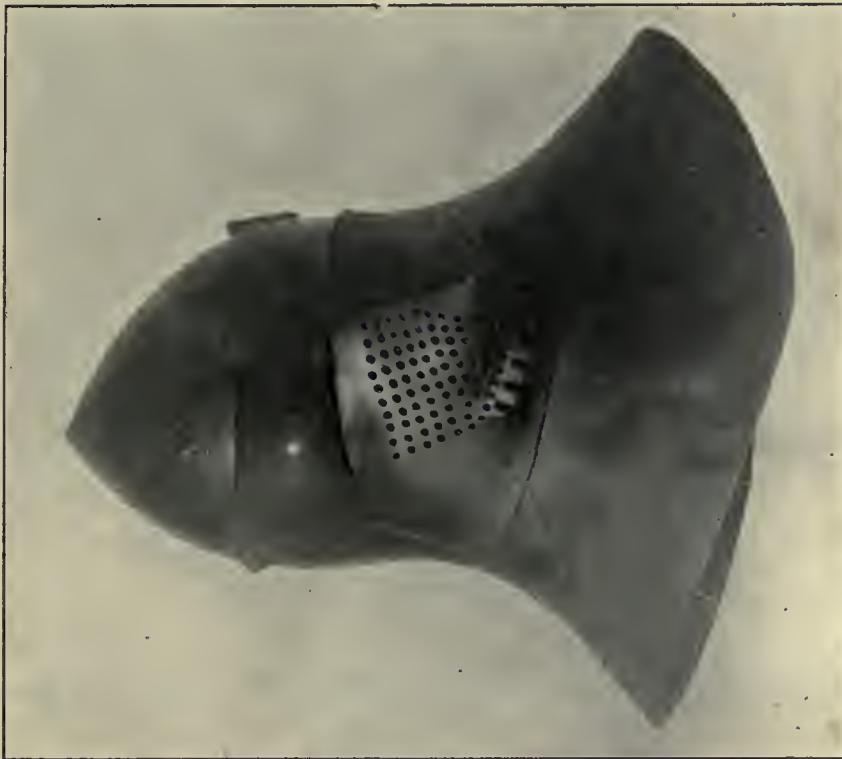
*Item pro VI pellibus per cameni dd crestas faciendas XVIIIId.*

*Item pro castonibus et clavis ad testeras et cristas IIs.*

The representation of a crest attached to a bascinet in contemporary painting and sculpture is rare; for it was nearly always on his helm that the knight wore his armorial bearings. We give, however, an illustration of the memorial slab of John, Count of Wertheim, 1407 (Fig. 298), where it will be seen that the crest he bears on his helm is duplicated upon his bascinet.

Generally speaking, in dealing with head-pieces we shall find it impossible to keep within the limits of the century in which they were mainly fashionable; for, with very few exceptions, a century was too short a period to allow for the birth and death of a universally popular defence. An excellent example of this truth is the case of the bascinet helmets we are describing. From the first mention of the bascinet by Guillaume Guiart in 1214, we have been trying to trace its evolution in chronological order, with the result that we have now arrived at the closing years of the XIVth century. Notwithstanding it has not as yet made its appearance in its most complete form: in the opening years of the XVth century we still find the bascinet the fighting head-piece. But by this time it has taken a very distinctive step forward in its protective powers; inasmuch as the tippet of chain is almost universally superseded by a protection of plate, as we show in our illustration (Fig. 292). We are able to give, however, an instance of the retention of the chain camail of the primitive type even in the first quarter of the XVth century: it can be noted still in use attached to the bascinet on the effigy of Ralph Nevill, Earl of Westmorland, in Slaindrop Church, Durham, whose effigy was executed about 1425 (Fig. 197, page 160).

During the second quarter of the XVth century the development of the "great" bascinet, as it was then called, with a gorget of plate and a detachable visor was rapid; and it is indeed difficult to know when to cease calling these head-pieces bascinets, and when to distinguish them from those helmets used for fighting on foot, the description of which we continue in our Chapter XIII dealing with the helms of the XVth century. These early XVth century bascinets are rarely seen, the twelve we illustrate being the only true



(a)

(a) Front view



(b)

(b) Three-quarter view

FIG. 299. "GREAT" BASCINET HELMET WITH PIG-FACED VISOR, LATE XIVTH OR EARLY XVTH CENTURY  
The Arsenal, Venice

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examples known to the present writer. Their form, especially the skull-piece and general character, call to mind the bascinet helmets of the latter part of the XIVth century. Indeed, for the first ten years of the XVth century their development was so slow that it is quite impossible to assign to them, with any degree of accuracy, a date; with the result that, although we claim the famous and wonderful bascinet preserved in the Arsenal of Venice, and said to have come from Aquilea, as of early XVth century date, it might, without fear of contradiction, be assigned to the end of the XIVth century. Perhaps, with this exception, the bascinet helmets of the second quarter of the XVth century

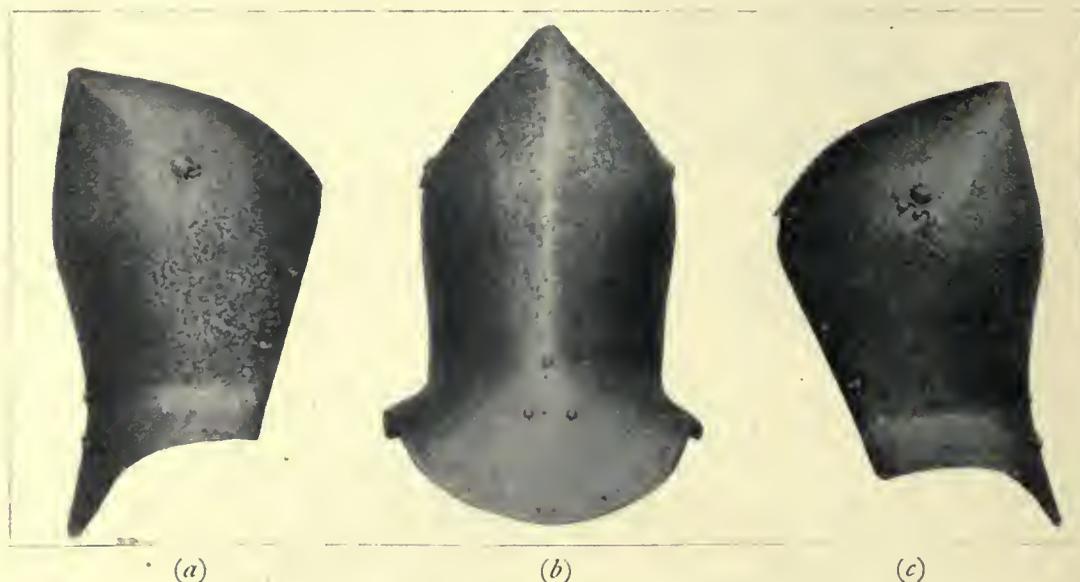


FIG. 300. SKULL-PIECE OF A "GREAT" BASCINET HELMET, EARLY YEARS OF XVTH CENTURY

In the collection of Count Hans Wilczek

(a) Right profile view; (b) Back view; (c) Left profile view, showing the rivet and hinge plate

are nearer the fighting helm in construction; for in them the head could be freely turned. As a rule the chin-piece is riveted to the skull-piece, the opening at the neck being of sufficient size to enable the head to be passed through it; and by the arrangement of the plates, which take the place of the camail, the whole weight of the helmet is carried directly on the shoulders. Saint-Remy relates that at the battle of Agincourt the "*harnois de teste*" of Henry V "*estoit un très bel bascinet à bavière.*"

No definite indication of the very wonderful helmet (Fig. 299, *a, b*) which we have just mentioned, appears in the old inventories of the Venice arsenal; though in the Inventory of 1611 a head-piece described as "An ancient Helmet and Visor" might possibly be it. Gravembroch also refers to

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"A helmet supposed to be that of Attila; it stands in the gallery of the Council of Ten." It is evident, however, that he was not sure of his facts, as in the same work he refers to the helmet now numbered E 2 under the description: "Iron hat reputed to be that of Attila, king of the Huns; it stands in the Arsenal in Venice." The helmet is a wonderful *tour d'adresse* of the armourer's art, though to some it may not be a thing of beauty; indeed, it has been compared with the steam dome on a locomotive, as the plate corresponding with the chain camail, together with the skull-piece of the



FIG. 301. SKULL-PIECE OF A "GREAT" BASCINET HELMET

Possibly English, early years of the XVth century. Aldborough Church, Holderness, Yorks



FIG. 302. SKULL-PIECE OF A "GREAT" BASCINET HELMET

Possibly English, early years of the XVth century. Norwich Castle Museum

helmet, are entirely forged from the same piece of iron. The snouted visor alone is a separate plate. Around the base of the skull-piece and running over the forehead is a series of holes for retaining the lining. This Venetian helmet is thick in the requisite parts, though not unduly heavy, and is a fine head defence; but once the head was inside, movement must have been difficult, for the wearer was restricted to a view of what was only directly in front of him. There is a poor forgery of such a bascinet in the Tower of London.

More like the Venetian "great" bascinet than any other with which we

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are acquainted is the example now in the collection of Count Hans Wilczek at Kreuzenstein; for though lacking the chin-piece, which in this case was riveted on in a separate plate, and also the pointed visor, it has the acutely-pointed and ringed skull-piece seen on the smaller bascinets of the closing years of the XIVth century. It still retains one hinge plate for the movable visor. This head-piece was found in Northern Germany (Fig. 300).

The next four examples of the great bascinet helmet are in England; and of these the oldest is the one which we place within the first years of the

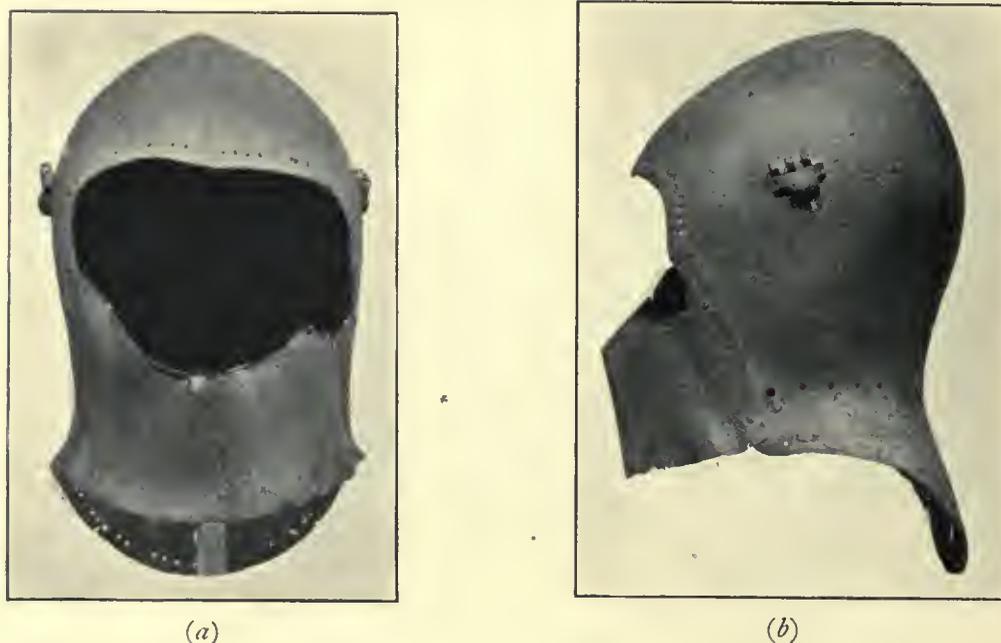


FIG. 303. SKULL-PIECE OF A "GREAT" BASCINET HELMET ON TO WHICH IS RIVETED A BEVOR  
Found at Kordofan on the White Nile. Possibly French, first quarter of XVth century  
British Museum

(a) Full face view

(b) Profile view

XVth century, and which is preserved in Aldborough Church, Holderness, Yorkshire (Fig. 301). To the late Mr. Wentworth Huyshe is due the credit of having obtained this most interesting helmet for exhibition in the now famous Loan Collection of ancient helmets and mail held in the rooms of the Royal Archaeological Institute in 1881. His opinion was that it dated from the second half of the XIVth century. It was Mr. Huyshe who then furnished the following notes in the catalogue of "Helmets and Mail" concerning it: "This bascinet is traditionally assigned to Sir John de Melsa or Meaux, who was governor of the city of York, 1292-6, and hangs over his effigy in Aldborough Church."

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Extract from "Notes and Queries," 25 January, 1879:

About 1850 I was at Aldborough, Holderness, Yorkshire, and was there informed that there was an old iron helmet in the church, which was employed habitually as a coal-scuttle to replenish the church fires in winter, D.D.

Extract from a letter dated February 1879, from the Rev. Philip Wood Loosemore, Vicar of Aldborough, to Wentworth Huyshe, Esq.:

The notice of the iron helmet in the extract from "Notes and Queries" has reference to 60 or 70 years ago, when it was used as a coal-scuttle, and much damaged thereby. The village school was then held in the chantry of the church. . . . The helmet now hangs over the tomb to which it belongs, and this tomb has the figure of Sir John de Melsa in armour, with the feet resting on a lion. There is no inscription on the monument. . . . The first Sir John de Melsa, of whom any account has been found, was the owner of the land at Melsa, or Meaux, in Holderness, on which the Abbey of Melsa was built, in the year 1150. Amongst his descendants was a son John, who died without children about 1377, who owned the manor of Berwick.

Mr. Huyshe further remarked in the catalogue: "The bascinet cannot have belonged to the first Sir John de Melsa mentioned in Mr. Loosemore's letter; but there is the possibility that it belonged to his descendant John, who died in 1377, its form corresponding with the known type of that period."

This bascinet, as may be supposed from Mr. Huyshe's notes, is in poor condition; and a thick coat of tar, with which it appeared to be covered when exhibited, did not facilitate an inquiry into its original aspect. Over the arch of the opening for the face is a series of small counter-sunk holes, half an inch apart, for sewing in a lining. At the nape, the helmet is hollowed out; the rivets can be traced by which a strap was probably secured, which also assisted to retain the lining in position. Up each side of the face-opening there are more rivets, probably for the same purpose, or possibly for fixing a camail; but as this helmet rested on the shoulders it would seem probable that it was used with a standard or hausse-col of mail rather than with a camail. On each side of the helmet, somewhat high up, is a rather large hole for the rivet which secured the visor. At the apex there is a ring. The late Mr. William Burgess, in his catalogue of the "Helmets and Mail" exhibition, drew attention to the resemblance of this helmet to those represented in the Meliadus MS., British Museum. A still closer resemblance will be seen to the helmet of a knight in a miniature from the *De Ruina Trojæ*, engraved by Hewitt, who considered this MS., as well as the Meliadus one, to date from about 1350.

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We are reluctant to disagree with such eminent authorities as were the late Mr. Burgess and Mr. Huyshe; but, in our opinion, the Aldborough bascinet has all the characteristics of an early XVth century head-piece, and so could not have belonged even to the latest John de Melsa. Not having visited Aldborough Church, we are of course unable to speak with absolute authority; but it would seem more than possible that this helmet originally hung over some tomb of early XVth century date, the record of which was lost, with the result that on the revival of archaeological interest in ecclesiastical quarters the unclaimed helmet was placed above the most important tomb in the church—that of the Melsa family.

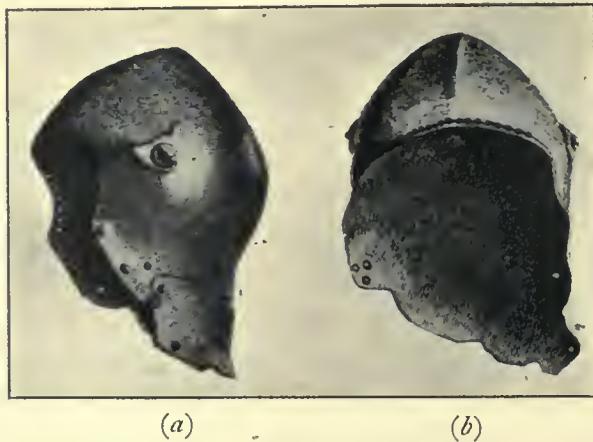


FIG. 304. SKULL-PIECE OF A "GREAT" BASCINET HELMET  
Possibly English, first quarter of XVth century. Warwick Castle Collection  
(a) Profile view; (b) Full view  
From Grosse's "Military Antiquities"

The next great bascinet which we will consider, a bascinet distinguished by its grand proportions, early date, and fine state of preservation, is that preserved in the Norwich Castle Museum (Fig. 302). It was found half a century ago in the outskirts of the town, but where is unfortunately not recorded. It is not quite so high in the apex of the crown as the Holderness example; so we think it is of a little later date, possibly 1420-30. It is also more shapely, the back portion descending to a considerable depth down the back. It contains the customary series of holes for securing the lining; while *in situ* are the rivets, the plates, and even the pins that held the visor in position. It is impossible to say whether or not the style and workmanship are English; for, as we shall see by reference to the other bascinets we are about to illustrate, almost exactly similar helmets have been found in France,

## THE BASCINET HEAD-PIECE

in Germany, and in Spain. Look at that remarkable helmet in the British Museum, which almost duplicates the Norwich skull-piece (Fig. 303, *a, b*). Yet, strange to relate, this head defence was found at Kordofan, on the White Nile. That it should have crept one thousand eight hundred miles up the Nile and found its way back to Europe after nearly four centuries is certainly a point of interest. It is on record that one of the charges made against Jacques Cœur, the celebrated silversmith of Charles VII of France, was that he had sold armour to the Soldan of Babylon, as the Khalif of Egypt was



FIG. 305. SKULL-PIECE OF A "GREAT" BASCINET HELMET  
Possibly French, first quarter of XVth century  
Collection: Sir Edward Barry

then called. It is possible then that this helmet was part of the armour exported by the great French merchant; as in form it corresponds fairly well with helmets made about his time. The trial of Jacques Cœur took place in 1452; but the exportation of armour that constituted the charge made against him took place before this date. It is probable, too, that the armour exported was not of the latest fashion. This much-travelled helmet, together with a large ethnographical collection, was presented to the British Museum by Mr. Henry Christy. It was given to Mr. Christy by the Khedive of Egypt, in whose collection it was when exhibited at Paris in 1867.

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To the skull-piece of this bascinet is riveted a chin-piece; but it is exceedingly thin, and might be an addition of later date. Against this hypothesis are the facts that the holes for sewing in the lining cease where the chin-piece begins, and that the chin-piece has rivets for a lining. Still, the form of the chin-piece is so bad, and it is so very thin, that it seems likely that, in its present form at least, it is not coeval with the rest of the helmet. The back of the helmet extends down between the shoulders, so that it could be fastened securely to the back-plate, as in the case of the Norwich bascinet



FIG. 306. SKULL-PIECE OF A "GREAT"  
BASCINET HELMET

Possibly English, first half of XVth century.  
A buffe of somewhat later date is riveted to  
the front. Marston Moretaine Church

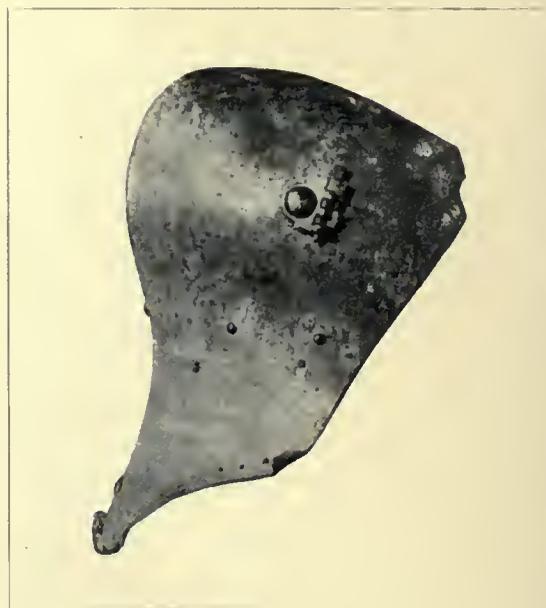


FIG. 307. SKULL-PIECE OF A "GREAT"  
BASCINET HELMET

Possibly English, first half of XVth century.  
It was discovered in the north of Spain.  
Collection: M. George Paulhac, Paris

just described. The metal is very thick towards the apex, where there is a small hole for fixing either the ring, as in the case of the Yorkshire helmet, or more likely a crest.

At the risk of wearying readers by our apparent duplication of descriptions, we will continue to mention the other existing examples of this particular type of bascinet head-piece; as a matter of fact, however, specimens are so rare that, as we have said, only thirteen in all are known to the present writer. Of the remaining three which are to be found in England, the example in Warwick Castle perhaps is the more interesting; for attached to it is the tradition of its having been found in the castle ditch, and it has been known

## THE BASCINET HEAD-PIECE

for over a century as the helmet of no less a person than Guy, Earl of Warwick! It belongs, however, to a period that would make it possible for it to have been the property of Richard Beauchamp, Earl of Warwick. Even so, however, there is only the remotest chance of such an attribution being valid; for it is hardly likely that the head-piece of such a famous fighter would find its way into the castle ditch. This helmet is the skull-piece of a "great" bascinet of the first half of the XVth century, very closely resembling the last two we have described; though an additional plate is seen riveted to the base of the neck-piece. The hinge plate for the visor is still in position (Fig. 304, *a*, *b*). Another "great" bascinet is in the collection of Sir Edward Barry. It practically duplicates the British Museum example; though it is more deeply corroded with rust—the result of which has been somewhat to damage its lower outline. This skull-piece was found in central France (Fig. 305).

In Marston Moretaine Church, Bedfordshire, is the only other "great" bascinet helmet in England with which we are acquainted; though, as we have already said, certain of the large helmets of but a few years later date are but a step in advance on these head-pieces. The skull-piece of this last-mentioned bascinet certainly dates well within the first half of the XVth century. The illustration of it shows its likeness to those "great" bascinets we have already figured. The top of the skull-piece, on which blows might be expected to fall, is very thick; but the metal is drawn out over the eyes, as here it would be reinforced by the addition of the visor, the large holes for the pivot of which are carefully drilled on either side. For the purpose of adapting to funerary use this skull-piece, a cut-down portion of a large buffe has been riveted to it at a date probably early in the XVIth century (Fig. 306).

There was discovered quite recently in the north of Spain the skull-piece of a "great" bascinet, which is quite of what we have termed the English type,



FIG. 307A. SKULL-PIECE OF A "GREAT" BASCINET HELMET

Possibly English, first half of XVth century. Riggs' Collection, Metropolitan Museum of New York

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and diverges in no way from those already referred to, save in the formation of the crown. This shows a greater depth from the front to the back; it is also noticeable that the apex is lower than that of any of those we have illustrated. The rivets, plates, and pins that retain the visor are intact. This fine helmet is now in the collection of M. George Pauilhac (Fig. 307). In the collection of Mr. W. H. Riggs, now presented to the Metropolitan Museum, New York, is another such skull-piece (Fig. 307A). This example is more hemispherical in form than the others known to us.



FIG. 308. "GREAT" BASCINET HELMET  
WITH VISOR COMPLETE

Probably German, end of first half of  
XVth century. Dino Collection, Metro-  
politan Museum of New York



FIG. 309. "GREAT" BASCINET HELMET  
WITH VISOR COMPLETE

Probably German, end of first half of  
XVth century. Dino Collection, Metro-  
politan Museum of New York

The next two great bascinets we present are complete, so affording an excellent illustration of the probable appearance of the skull-pieces already recorded, had their visors survived. Both come from the famous collection of M. Louis Carrand. It was stated by the late M. Victor Gay that they were found together in a well outside Athens; but we are bound to confess that the rust oxidization found on their surface does not suggest immersion in water, but appears to be due merely to exposure to atmosphere, as in the case of so many of our English church helmets. Both helmets date within the borderland of the first half of the XVth century. One of them (Fig. 308) is possibly

## THE BASCINET HEAD-PIECE

slightly the earlier of the two, and in the opinion of the Baron de Cosson, is probably German in make. The skull-piece is still pointed, but very much less so than those of the earlier bascinets; also the point of the visor is more obtuse and rounded. The covering for the nape of the neck is forged of a single piece; and the chin-piece is formed of two plates, one of which covers the chin and the other forms the neck-guard. The visor, which is removable as in the case of the other bascinets, is pierced with double slits forming the ocularia, and with numerous round holes at each side of the point for purposes



(a)



(b)

FIG. 310. BASCINET HELM (GERMAN), ABOUT 1460

Now in the *Zeughaus* of Berlin, formerly in the town hall of Fürstenwalde on the Spree

(a) Profile view; (b) Back view

of ventilation. There is an armourer's mark stamped on the lower part of the skull-piece—a Gothic R in a shield.

The other helmet (Fig. 309), though still retaining the pointed skull-piece characteristic of the bascinet helmet, is pierced at the top with a large hole for the purpose of attaching a plume, and with five holes beneath the pivots of the visor at each side, for auditory purposes. The visor is very salient in front, and is pierced with numerous round holes for sight and breathing. The projecting chin-piece is also pierced with round holes on the upper part. The camail plates widen towards the base and are pierced with small holes for the probable purpose of lacing. The Baron de Cosson is

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of the opinion that this bascinet, like the helmet just described, is wholly German in style and of German workmanship.

The last helmet we can place in the category of the "great" bascinets is that curious head-piece, partly bascinet, partly armet, and partly helm, that was presented to the *Zeughaus* of Berlin in 1912 by the town of Fürstenwalde on the Spree, in the Town Hall of which place it had been for many centuries (Fig. 310, *a, b*). Such a head-piece as this would answer to M. Viollet-le-Duc's description of what he understood to be the helmet termed a *bicoquet* or *bycoket*. But in the case of the bycoket head-piece, as in that of the barbute, we admit that we still cannot determine to what form of head-piece either of these terms should really apply. When we turn to the French derivation of the word we find that *bicoque* means *une maison très-simple et très-petite*, or *une petite place mal fortifiée et sans defence*; so that we cannot help thinking that it is highly improbable that the term would be used, in a transferred sense, to describe a fully protective head-piece. We read, too, that the royal cap of estate was known as the abacot, abocoket, or bycocket. M. Beneton de Morange de Peyrins, again, in his work *Traité des Marques Nationales*, Paris, 1739, alludes to the *bicoquet* as a "species of morion, *pot en tête* or *salade*," "*plus leger que le gros casque de bataille*." Are we not therefore justified in concluding that the *bicoquet* helmet was a small *salade*-like head-piece, more after the fashion of a cap of maintenance but fashioned in metal? As, however, in the difficult case of the barbute head-piece, so in this matter of identifying the *bicoquet* helmet we have no wish to be dogmatic. We leave the solution to the decision of the reader, advising him in all fairness to consider the argument which M. Viollet-le-Duc puts forward in his famous *Mobilier*. The helmet in question is a finely made and excellently preserved head defence, but curiously incommodious for purposes of wear, since it encases the head and neck so closely that any rotatory movement is well-nigh impossible. The skull-piece is oviform, though shaped in closely to the back of the neck. It possesses great cheek-pieces, hinged, after the manner of an armet, immediately below the visor pivot. These overlap down the chin, where they are secured with a turning-pin. The visor is of flattened hemispherical form, of stout proportions, and pierced with a multitude of circular holes for the purposes of seeing and breathing. The visor is attached to the skull-piece on the rivet hinge and pin principle. A series of holes for fastening the lining strap runs round the lower edge of the helmet; while above them at intervals are rivets with star-shaped rosette washers on the exterior. These appear to be purely ornamental; for they can serve no purpose,

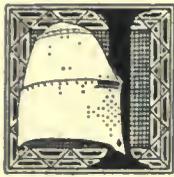
## THE BASCINET HEAD-PIECE

unless perhaps they were placed to retain a leather strap to which the lining could be additionally secured. Near the lowest extremity of the skull-piece at the back is a deeply impressed armourer's mark—three crosses within a shield. The make of the helmet appears German, but provincial German; its probable date is about 1460.

The final development of the "great" bascinet and its ultimate merging into the fighting helm we must leave for discussion in a later chapter, where we deal with that type of bascinet-helm.

## CHAPTER IX

### THE HELM FROM THE EARLY YEARS OF THE XIII<sup>TH</sup> CENTURY TO THE END OF THE XIV<sup>TH</sup> CENTURY



IN tracing the evolution of body armour, and in speaking of the various types of helmets and of weapons, we have so far merely alluded to the great helm. It is now necessary, in order that we may resume the story of this particular head-piece, to return to the early years of the XIII<sup>th</sup> century, the period at which we began it (see Figs. 141, 144, 145, 146, 147, 148 and 149, pages 117, 118, 119, 120). From this point we pass from what may be called the period of the theoretical helm, the period in which we can gather no very satisfactory information on which to form our ideas of the helm's make, to one in which we possess slightly more tangible evidence to assist us, namely, that available in contemporary effigies and sculpture. This period covers about a hundred years; for it is not until the last quarter of the XIV<sup>th</sup> century that we are able at last to illustrate an authentic helm in actual existence. It is a strange fact that, notwithstanding the survival of a certain number of conical helmets of the XI<sup>th</sup> and XII<sup>th</sup> centuries, and of a fair series of bascinets of various years of the XIV<sup>th</sup> century, not a single genuine specimen of the large helm is known to us that can be dated anterior to about 1370, and that of these late XIV<sup>th</sup> century helms we can instance five known examples only. This fact is worthy of notice, and it is as well to be forewarned; since there are numerous forgeries of early helms, some even purporting to be of the XIII<sup>th</sup> century, in the private and public collections of every country. Of the non-survival of these helms, or even of fragments of them, there is no satisfactory explanation. It may be by their weight causing the several plates of which they were composed to break asunder rather readily when once the rivets had been affected by rust, that their life was shorter than that of the one plate head-piece; for when once they had been broken up the plates were, no doubt, cast away as useless, or wrought into unrecognizable shapes for other purposes.

But to return to helms of the early part of the XIII<sup>th</sup> century. The representation of the helm can be seen in knightly effigies, in the great seals

## THE EARLY HELM

of famous personages, and in painted missals. But it must be borne in mind that in effigies the helm usually forms the head-rest to a recumbent knight, and so is only partially visible; while in the seal and missal it is often little better than guesswork to conjecture the construction of the head-piece illustrated. We will, however, quote one English effigy in which the barrel-like helm of the opening years of the XIIIth century is shown to advantage on the head of the wearer, namely, on the figure of an unknown knight in Whitworth Church, Durham. The helm represented (Fig. 311) is almost cylindrical, with the spiraculum in its centre; while the weldings or joints are so arranged as to form a cross when viewed full face. It is interesting to note that unless the wearer of this helm could see through the spiraculum, which seems impossible from the position it occupies in the helm, he could



FIG. 311. HELM REPRESENTED ON THE EFFIGY OF AN UNKNOWN KNIGHT.  
EARLY XIII<sup>TH</sup> CENTURY

Whitworth Church, Durham. After Stothard

not see at all; for the helm contains no pierced ocularia such as are usually to be found in this type of head defence. Of a very little later date is a sculptured figure in nearly full relief on the exterior of Wells Cathedral (Fig. 312), which is said to represent the almost mythical Earl of Mercia. Here again the flat-topped helm can be noted. The ocularia are indicated higher up in the skull-piece, and there are long rectangular spiracula. A crown is fastened to the summit.

We contend, however, that the most reliable evidence for the actual form and make of the XIIIth century helm can be obtained from the metal *aquamaniles*, or water vessels, which were so often modelled in detail to represent a mounted and fully armed knight of the period. Little can the artificer of these quaint vessels, which were intended, we may add, to hold the scented water poured over the hands of favoured guests at the banquets of the nobility, have thought that, in modelling these grotesque little

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figures with their large heads and shrunken limbs, he was leaving behind him a valuable document destined to interest the antiquary of the present day. We have no doubt that in making these little manikin knights the workman was only following the custom of the painters of mediaeval times, who depicted all their figures, even those of Biblical subjects, in the garments and armaments of their own period. Their neglect of any dress other than that of their contemporaries, has, after the passage of centuries, proved of inestimable value; since the verisimilitude of the costumes depicted can be relied on, if allowance be made for the crude expression of detail. The earliest of the *aquamaniles* known to the present writer that has a military character is the fine example, formerly in the collection of M. Louis Carrand, and now in the Bargello Museum of Florence (Fig. 313). M. Carrand considered it to be French. In this equestrian statuette the warrior is represented in a suit of chain mail of the so-called banded order, if this detail is to be depended upon, armed with a kite-shaped shield, and a lance or spear. But it is his head-piece which is of interest at the moment. This consists in a large helm such as in battle or the joust formed, with the addition of a steel cap, or, in a slightly later period, of the bascinet, over which it was worn, the chief head defence of the knight. The whole weight of such a helm as this rested entirely on the head and not, as in the case of the later XVth century types of helm, on the shoulders of the wearer. No doubt it was padded or stuffed on the inside to make it fit closely over the under helmet, and to keep it firmly balanced. Later, it was often strapped to the back and breastplate. Roughly, it was barrel shaped, protruding slightly beneath the ocularia. In our opinion the earlier the helm, the closer the breathing slit, or spiraculum, is placed to the centre of the face of the head-piece. Looking at the helm of the Carrand *aquamanile*, the reader will note that the breathing slit and the vertical reinforcing band running directly down the front of the helmet form in combination a cross *botonné*; whereas upon those helms which are known to be of rather later date the breathing slit is found placed higher, and, in fact, sufficiently high to be used also as



FIG. 312. SCULPTURED FIGURE, MIDDLE XIIIth CENTURY, ON THE EXTERIOR OF WELLS CATHEDRAL

or spiraculum, is placed to the centre of the face of the head-piece. Looking at the helm of the Carrand *aquamanile*, the reader will note that the breathing slit and the vertical reinforcing band running directly down the front of the helmet form in combination a cross *botonné*; whereas upon those helms which are known to be of rather later date the breathing slit is found placed higher, and, in fact, sufficiently high to be used also as

## THE EARLY HELM

an ocularium. The helm of the Carrand example, which may be safely assigned to the middle of the XIIIth century, is apparently reinforced



*[Photo Alinari]*

FIG. 313. AQUAMANILE, MIDDLE OF XIIIth CENTURY  
Collection: M. Louis Carrand. Bargello Museum, Florence

at the juncture of the sides and skull-piece and also around its base; at either end of the spiraculum is an ornament of semicircles. In front,

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in the upper half, are five circular holes on either side, which form the ocularia; while below the horizontal aperture on either side is a single circular hole of larger dimensions. Hardly less interesting than the Carrand statuette, though not so complete, and probably some thirty years later, is the specimen in the British Museum (Fig. 314). It was found



FIG. 314. AQUAMANILE, SECOND HALF OF XIII<sup>TH</sup> CENTURY  
Found in the Tyne near Hexham. British Museum

in the River Tyne, near Hexham, and was purchased by the British Museum authorities in 1853. Having been found in England, it may possibly be of English workmanship; but as such metal work late in the XIV<sup>th</sup> and in the commencement of the XV<sup>th</sup> century was made chiefly at Dinant, near Liège in Belgium, these *aquamaniles* are generally classed as *Dinanderie*. The helm of the Museum little knight is practically similar

## THE EARLY HELM

to that of the Carrand example, except that the horizontal slit is higher, and appears to have been used as the ocularium, while the holes below were used as spiracula. The helmet is not ridged at its base or top, and is quite plain, save for a raised trefoil ornament on either side of the ocularium. The body armour is plain chain mail, covered with the long surcoat. The date is within the second half of the XIIIth century. We are able to give an illustration\* of another *aquamanile* which was, but



FIG. 315*a*. AQUAMANILE, LATE XIII<sup>TH</sup> CENTURY  
Collection: R. W. M. Walker, Esq.

a few years ago, in the English market, and is now in the collection of Mr. R. W. M. Walker. The helm worn in this statuette, which probably dates towards the latter part of the XIIIth century, is slightly different in construction from those we have just mentioned, and is rather smaller. All its lower front part is filled with large breathing holes (Fig. 315, *a*, *b*); while the ocularia are large and are divided by an aquiline nasal ridge running down the centre. The lower edge of the helm is cut away at the back, and in front extends over and under the chin. As in the case of nearly all

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*aquamaniles* of this type, the flat top of the helm is used as a hinged lid. In most examples this is missing; but in this instance it is in position, and is surmounted by a low, fan-shaped crest. The accompanying body armour is apparently chain mail covered with the flowing surcoat. The wonderful series of tiles preserved in the British Museum from the church, chapter-house, and other buildings of Chertsey Abbey, which are considered to be of English workmanship and to date from about 1260, show helmets as the head-pieces of the various warriors depicted thereon. On page 127 (Fig. 154) we have given the illustration of a mounted archer from this series of tiles, wearing the helm; we here give another illustration of a Chertsey tile, also chosen from Dr. Manwaring Shurlock's "Tiles from Chertsey Abbey," on which is shown the combat of Tristrem with Moraunt, the Irish Ambassador. The head-piece worn by both combatants, it will be noted, are helmets exactly of the type seen on Mr. Walker's *aquamanile* (Fig. 316). Here we will mention a miniature visor in copper gilt found in France of late XIIIth century date (Fig. 317). It must originally have been made for the figure of some armoured saint; but its full face view is much like that of the helm represented in Mr. Walker's *aquamanile*. At the top is a hinge made as if to lift to show the face of the wearer. It is possible that the little figure for which it was originally constructed was not armed with a helm but with a *cervelière*, or cap of steel, or even with a chain mail coif, as we see in another illustration (Fig. 139, page 113); but from its proportions, which are very full, it would appear to represent the visor of some form of late XIIIth century helm. In the latter years of the XIIIth century a slightly different type of helm appears, more akin to those extant head-pieces which belong to the latter half of the next century. We are able to illustrate this type from a piece of glazed pottery which, doubtless, formed part of an *aquamanile*. This fragment, interesting and valuable as a document, yet so crudely fashioned that it fails to show the construction of the head-piece, was found during some excavations made at Storey's Gate, Westminster, in April 1911, and is now in the London Museum (Fig. 318).



FIG. 315*b*. FRONT VIEW OF THE HELM ON THE WALKER AQUAMANILE, SIZE OF THE ORIGINAL

with a *cervelière*, or cap of steel, or even with a chain mail coif, as we see in another illustration (Fig. 139, page 113); but from its proportions, which are very full, it would appear to represent the visor of some form of late XIIIth century helm. In the latter years of the XIIIth century a slightly different type of helm appears, more akin to those extant head-pieces which belong to the latter half of the next century. We are able to illustrate this type from a piece of glazed pottery which, doubtless, formed part of an *aquamanile*. This fragment, interesting and valuable as a document, yet so crudely fashioned that it fails to show the construction of the head-piece, was found during some excavations made at Storey's Gate, Westminster, in April 1911, and is now in the London Museum (Fig. 318).

## THE EARLY HELM

It shows a barrel-shaped head-piece, of proportions with which we are acquainted, but of which no genuine existing example is known to us. The ocularia are represented as though immediately opposite the eyes. Below these, on either side, are circular holes, pierced as spiracula. This model helm is still flat at the top, and fails to show the conical development at that point which is necessarily seen in the helm of slightly later date, which was made to fit over the bascinet helmet. Its base in front still inclines inwards, a feature which disappears when the spreading camail has to be covered; but in all other respects the form is not unlike that of the helm of



FIG. 316. COMBAT OF TRISTREM WITH  
MORAUNT, THE IRISH AMBASSADOR

Latter part of XIIIth century  
From a Chertsey tile



FIG. 317. MINIATURE VISOR OF A HELM (?)  
IN COPPER GILT

End of XIIIth century. Size of the original.  
Collection: Author

the opening years of the next century. Since the discovery of this fragment of pottery, a second example, dating, like it, within the early years of the XIVth century, has come under the notice of the present writer. It consists in a head and part of a body clad in mail, probably from an *aquamanile*, and was found on the site of Barclay's Brewery, Southwark. It will be noticed in the case of this example (Fig. 319), which is the property of Messrs. Barclay, Perkins and Co., that the rendering of the helm is somewhat more fantastic, and therefore less satisfactory than that of the Westminster model. We regret that we are unable to supply an illustration of the

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helm of mid-XIVth century fashion from our English effigies; but in nearly every case, as previously stated, it is placed beneath the knight's head, and so partially concealed.

It is our theory that elevated crowns were fashioned to the helms in order to fit over the pointed bascinet skull-piece, the popular helmet of the latter half of the XIVth century; and in helms of that date that was doubtless the case. It is interesting, however, to note, on the authority of a French early XIVth century manuscript in the British Museum, the *Apocalypse*, Royal MS. 19B, xv, ff. 35637, that the conical-topped helm was sometimes worn over a simple chain mail coif, a piece of evidence which serves to prove



FIG. 318. GLAZED POTTERY MODEL OF A HELM, EARLY XIVTH CENTURY  
Doubtless top of an aquamanile. Found at Storey's Gate, Westminster. Collection: Author

that occasionally at all events a truncated helm served for purposes of fashion and not of utility (Fig. 320). In the monumental tomb of Günther von Schwartzburg in the *Kaiser Dom* of Frankfort (see Fig. 263, page 229), who died in 1349, the helm he carries is the usual, if somewhat advanced, form of the truncated helm. In its construction it is very similar to that credited to the ownership of Edward, the Black Prince, except that down the centre of its face it has a strong reinforcing band, which terminates in trefoil shape at its base, and is strengthened round the ocularia. The top of the helm, which is concealed by the crest, must have been conical; for the knight wears the pointed bascinet, over which it would have fitted. Clearly defined are the quatrefoil

piercings in the lower front that were used for attaching the helm, by means of a chain and bar, to the *mamelières* of the breastplate. From this same *Kaiser Dom* of Frankfort we take our next representation—the helm on the monumental slab of Adolf von Sackenhausen, who died in the year 1371 (Fig. 321). Here the helm is almost identical with that at the cathedral church of Canterbury, except that the spiracula are not represented. The piercings by which the helm was attached to the cuirass are well rendered, as also are the chains shown here hanging from crown-shaped *mamelières*. Elaborate crests, all of a strictly heraldic nature, are shown upon both of these monumental slabs. The nature of their construction, and the medium

## THE EARLY HELM

in which they were modelled, were probably the same as in the case of the Edward the Black Prince crest described later.

With the advent of the third quarter of the XIVth century we have arrived at a period to which those very few genuine helmets known to the present writer belong. In order that comparison may be drawn we will first describe them very briefly. We are acquainted with but five examples. Taking them in the order of their importance they are: (1) The helmet credited to the ownership of Edward Prince of Wales, the Black Prince; (2) The helmet of Sir Richard Pembridge; (3) A helmet from Castle Tannenburg; (4) A helmet found in the River Traun; and (5) A helmet of the Pranck family. The helmet hanging over the tomb of Edward the Black Prince will have foremost interest for our readers (Fig. 322, *a*, *b*, *c*). We have referred to other achievements from the same tomb in the cathedral church of Canterbury on pages 150 to 155, with the illustrations there described. It has been suggested, and by so eminent an authority as Viscount Dillon, that the helmet is one made purely for funerary purposes. The Viscount draws attention to the fact that the helmet is thin as compared with those very few contemporary examples made for fighting purposes, which fact he puts forward as an argument against its having ever been used in battle. But we, in our turn, assert in its defence that it is heavier, and not lighter, than the only other existing English helmet of the same epoch which we have handled.

"The helmet is made of iron: its height is 14 inches: its weight 7 lb. 2 oz. It is composed of a front and back piece, riveted together at the sides: to these also is riveted a conical top piece, forged with great skill. The front edge of the top piece and the corresponding edge of the front piece do not meet, but are turned outwards to form the ocularium, or slit



FIG. 319. PORTION OF A GLAZED POTTERY AQUAMANILE

Showing an early XIVth century helmet. Found on the site of Barclay's brewery, Southwark. Collection: Messrs. Barclay, Perkins and Co.

## EUROPEAN ARMOUR AND ARMS

for the eyes; but a prolongation from the centre of the top edge of the front plate, three-quarters-of-an-inch wide, divides the ocularium into two apertures, and, extending up the front of the helm for four inches, ends in a fleur-de-lis, and is secured by five rivets. The cylindrical part is made of thin iron, and has its bottom edge turned up all round inside. The top part is of much thicker plate. The right side of the cylinder is pierced with eighty-eight spiracula, or breathing holes, arranged in the form of an open crown of thin *fleurons*. Of the rivets which encircle the helm every other one has a small washer for securing the lining. Some fragments of this still remain.



FIG. 320. FROM THE APOCALYPSE  
French, early XIVth century  
Royal MS., 19B, xv, ff. 35637  
British Museum



FIG. 321. FROM THE MONUMENTAL SLAB  
OF ADOLF VON SACHENHAUSEN  
About 1370. *Kaiser Dom*,  
Frankfort

Below the band of rivets are nine pairs of holes placed horizontally around the upper edge of the cylinder for the aiglettes of the lining. Around the top piece are two sets of four pairs of holes for securing the crest or coronet. In the front of the helm, near the bottom, are two holes of quatrefoil shape, through which passed a bolt or chain for fixing the helm to the breast-plate. There are also two holes at the back for securing the helm behind by a lace or strap." This is Sir St. John Hope's accurate description of the helm.

Like all pieces of armour that have hung for a long while exposed to

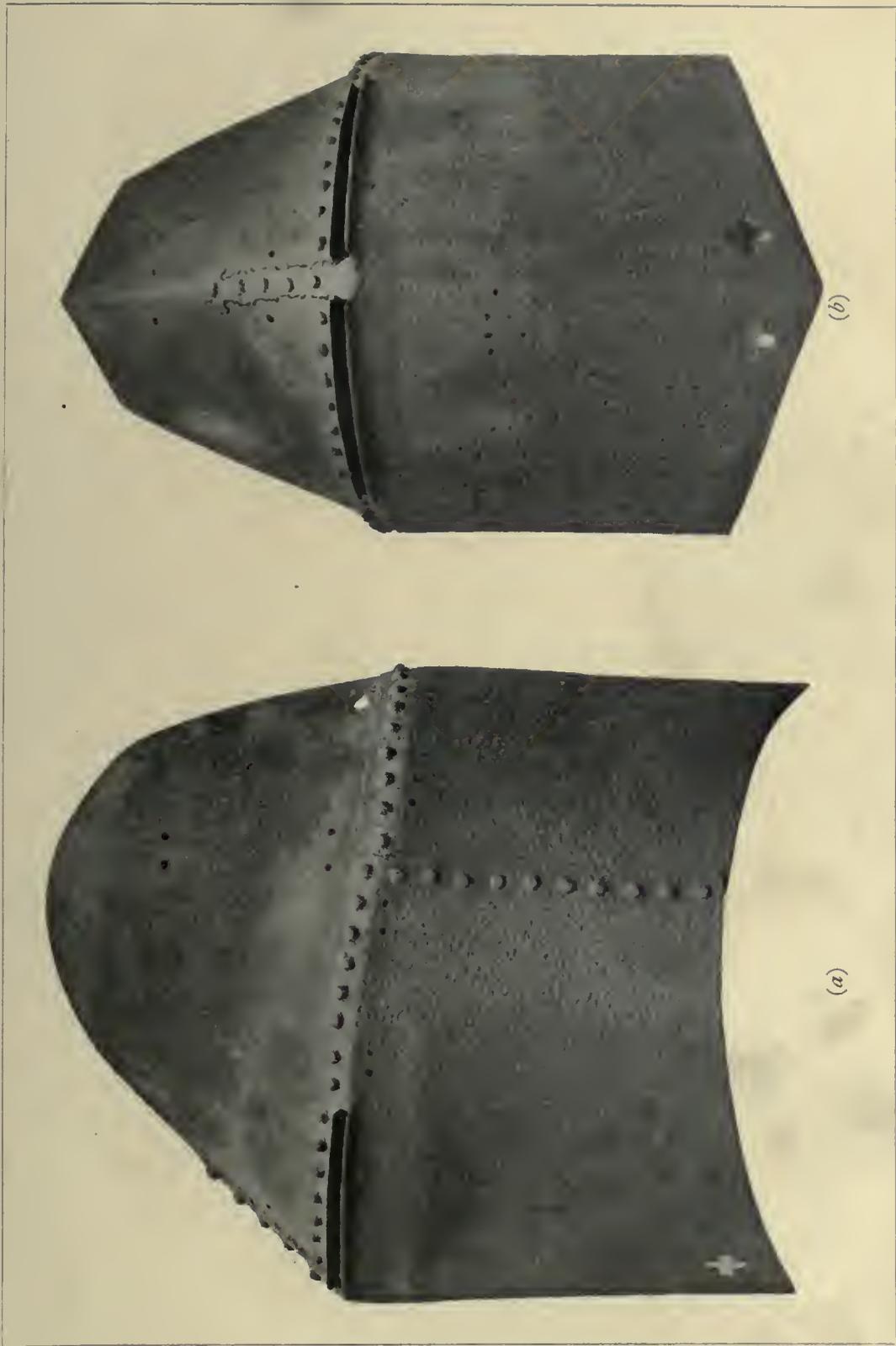


FIG. 322. HELM, SECOND HALF OF XIVTH CENTURY, HANGING OVER THE TOMB OF EDWARD THE BLACK PRINCE  
Cathedral Church of Canterbury

(a) Profile view

(b) Front view

## EUROPEAN ARMOUR AND ARMS

the atmosphere, though protected from the disintegrating action of rain and frost, the whole surface, although sound and strong, is now evenly pitted with rust. Since it has never been cleaned, we are unable to ascertain the exact quality of the metal; but, if we may judge from its elasticity, it is excellent. Except for its general character, which is fine, it is not an armament of any particular artistic merit; and it must have relied upon a gilded surface and elaborate cresting for making any distinctive display in the field. The crest may be considered as



FIG. 322c. THE CREST PLACED  
UPON THE HELM

From the tomb of the Black Prince  
in Cathedral Church of Canterbury

maintenance was painted red with its turned up edge rendered in white and black in imitation of ermine. It was originally lined with red velvet, some traces of which still exist. The present weight of the crest and cap is 4 lb. 5 oz. (Fig. 322c). In 1912 there was discovered in Queen Street, Westminster, a small bronze ornament, made to be applied to some object now impossible to ascertain. It is in the form of a helm, crested in exactly the same manner as the actual lion *statant*, crest, and cap of maintenance of Edward the Black Prince. There is no label about the neck of the lion; a

## THE EARLY HELM

lambrequin falls from beneath the cap. We illustrate this little ornament not only because it gives an exact representation of the crested helm of the time, but because there is the possibility that it may have been applied to some military apparel once the property of the Prince in question (Fig. 323).

The helm of Sir Richard Pembridge, formerly in the collection of Sir Noël Paton, is now in the possession of the Royal Scottish Museum, Edinburgh (Fig. 324). For 457 years the helm rested upon an iron perch over the tomb of Sir Richard Pembridge in the nave of the cathedral church of Hereford, where, on a column close by, hung the knight's shield, which has now been missing for over a century. The helm was knocked from its perch on the occasion of the falling in of part of the roof of the cathedral in 1786, when the right leg of Sir Richard's effigy over which it hung was broken, and the large indentation at the back of the head-piece was probably caused. In the same year the helm was described and engraved on a large scale, though with indifferent correctness, in R. Gough's "Sepulchral Monuments of Great Britain" (page 135). In 1822 the Dean and Chapter of Hereford, with mistaken generosity, removed the helm from above the tomb, where it had, no doubt, been placed after the burial of Sir Richard Pembridge, and presented it to Sir Samuel Meyrick to add to his famous collection—an act of vandalism which was not then sufficiently appreciated to be condemned. The Pembridge helm remained in the Meyrick collection at Goodrich Court until it was disbanded and sold piecemeal in 1872, when Sir Noël Paton had the good fortune to purchase it. It was Sir Noël's boast that his were but the second hands into which this famous head-piece had passed in a period of five centuries. Sir Richard Pembridge, we may add, was the representative of a knightly family which had settled near Weobly, in Herefordshire, a spot which bore the same name as early as the thirteenth century. He was one of the first Knights of the Garter, being fifty-third in order of creation. His alabaster effigy shows for the first time a Knight wearing the Garter about his leg.

In drawing a comparison between the Pembridge and the Black Prince helm, it will be noticed that the cylindrical portion of the latter is fashioned



FIG. 323. BRONZE ORNAMENT  
Showing a crested helm  
Found in Queen Street  
Westminster  
Collection: Author

## EUROPEAN ARMOUR AND ARMS

of two plates, back and front, riveted down both sides; whereas the same portion of the Pembridge helm is most deftly forged from one plate, with the join marks not even discernible. The Black Prince helm has the advantage, however, in having the top of the skull fashioned from one plate; whereas



FIG. 324. HELM, SECOND HALF OF XIVTH CENTURY

Which formerly hung over the tomb of Sir Richard Pembridge, K.G., cathedral church of Hereford  
Ex coll. Sir Samuel Meyrick and Sir Noël Paton. Now in the Royal Scottish Museum, Edinburgh  
From a drawing by the Author

the Pembridge helm has its top plate made of a truncated cone, beneath which is attached the actual crown of the skull-piece. The construction of the two helms is otherwise very similar, except that in place of the hemispherically headed rivets used for joining the parts of the Black Prince helm to-

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gether, round-headed, clinched nails are used upon the Pembridge helm. Both head-pieces have aiglette holes. Sir Noël Paton, in whose possession the Pembridge helm remained for thirty years before it passed into the hands of the nation, was incorrect in stating that the surface of the helm had at some time been silvered. This is not the case; for in 1872, on part removal of the layers of oil-paint with which it had been coated, its original burnished surface appeared, of the most beautiful lustrous black, and so hard that no ordinary sharp-pointed instrument could affect it. This we can confirm from a personal examination of the head-piece made a few years ago. It has been suggested, as we said above, that the Black Prince helm was made

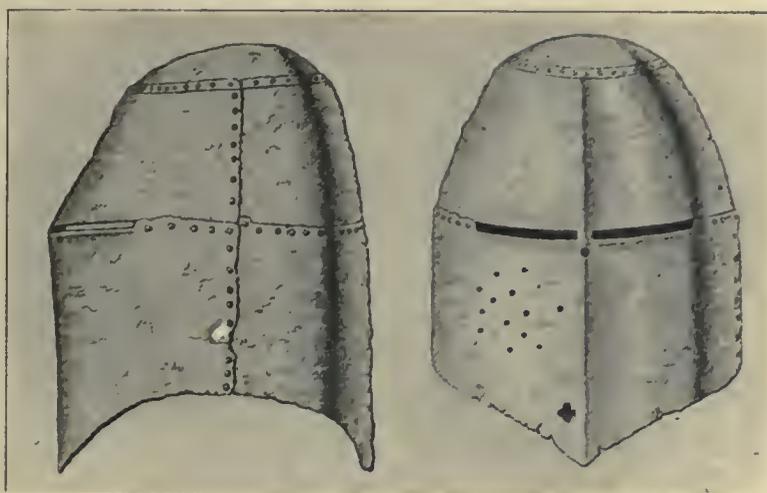


FIG. 325. HELM, SECOND HALF OF XIVTH CENTURY

Found under the ruins of the Castle of Tannenberg, near Jugenheim, in 1850  
*Zeughaus, Berlin. From Hefner-Alteneck's "Waffen, etc."*

for funerary purposes. This opinion is based on the thinness of its plate (it weighs 7 lb. 2 oz.); but inasmuch as the Pembridge helm which weighs even less (5 lb. 12 oz.) must be considered in every sense a true piece of fighting armour, we are bound to place the Black Prince helm in the same category.

The next helm we speak of was found beneath the ruins of the Castle of Tannenberg, near Jugenheim, on the Bergstrasse (Fig. 325). Castle Tannenberg was captured and burned to the ground in 1399; we may therefore suppose the helm to be of somewhat anterior date. The ruins of the castle were excavated by order of the Grand Duke of Hesse in 1850, when this helm, along with other armour and weapons were found. This helm, which

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is now in the *Zeughaus* of Berlin, and is much perished through rust and fire oxidization, closely resembles the Pembridge helm, being constructed on nearly the same principle, save that the fore and back parts are riveted down the side and that there are fewer spiracula holes on the right side. We were unable to obtain a photograph of the head-piece; but we illustrate it from a plate in Herr Hefner-Alteneck's "*Waffen, etc.*"

We now come to the remains of a helm found in the river Traum, to be seen in the museum of Linz (Fig. 326). Though this fragmentary head-piece

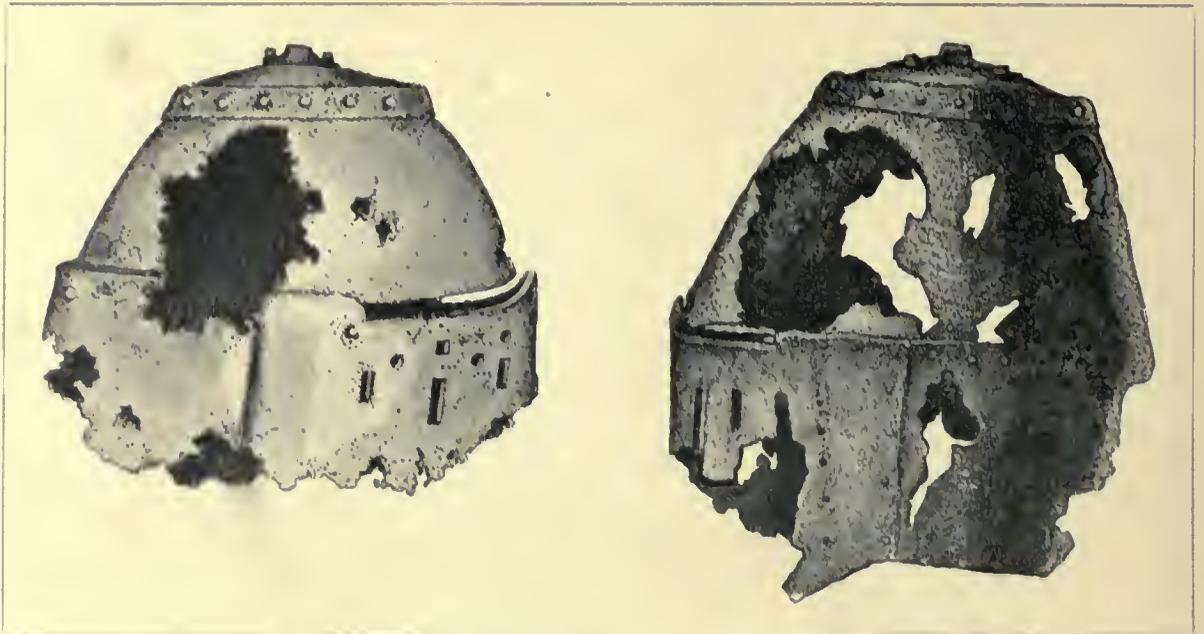


FIG. 326. HELM, SECOND HALF OF XIVTH CENTURY

Found in the river Traum, town of Traum. Museum of Linz. Right and left profile views of the helm. From a drawing by the Author

is to-day but a wreck of its former self, its general outline can be traced. It will be noticed that upright rectangular spiracula are placed on either side of this helm below the ocularia; while an applied band of iron conceals the joining of the inserted crown-piece and the upper truncated edge of the helm. On the top of the helm is an applied socket into which was probably fixed the crest. Of this, like the last helm described, we were unable to obtain a photograph, our illustrations coming from a drawing made by the present writer and from a plate in Herr Hefner-Alteneck's "*Waffen, etc.*"

Finally we must mention the helm of the Pranck family—the last fighting helm of the XIVth century type to be described—a helm remarkable

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as possessing an original crest (Fig. 328). It formerly hung in the cathedral church of Seckau, in Steiermark, where it was suspended above the tomb of Prancker von Pranck, subsequently passing into the famous collection of Herr Franz Thill. From Franz Thill it was acquired for the Imperial Armoury, Vienna. Of the last three helms we mention we cannot speak from personal examination; but that of the Pranck family is at least familiar to

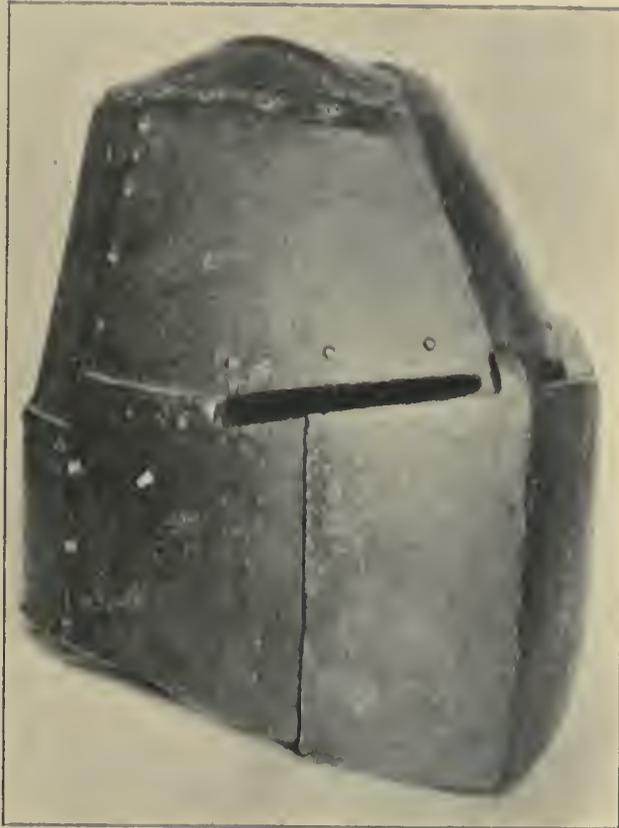


FIG. 327. HELM OF THE PRANCK FAMILY, THIRD QUARTER OF XIVTH CENTURY

From the Cathedral of Seckau in Steiermark, where it hung above the tombs of the Prancker von Pranck. Imperial Armoury of Vienna.

From a cast in the possession of the Author

us from an excellent cast of it in our possession (Fig. 327). In comparison with the other mid-XIVth century helms described, the Pranck helm is somewhat shorter in its cylindrical plates, and might be considered of slightly later date, possibly about 1400. It is also reinforced on its left-hand side by the addition of a plate riveted upon it. An unusual feature is the omission of means by which the helm could be attached either to the breast-plate or to the backplate; the customary holes in front or at the back found

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on other helms of this class are in this case absent. There is the possibility that the original lower edge of the helm has been cut away when the helm was hung up in the church. Accompanying the helm is an interesting crest

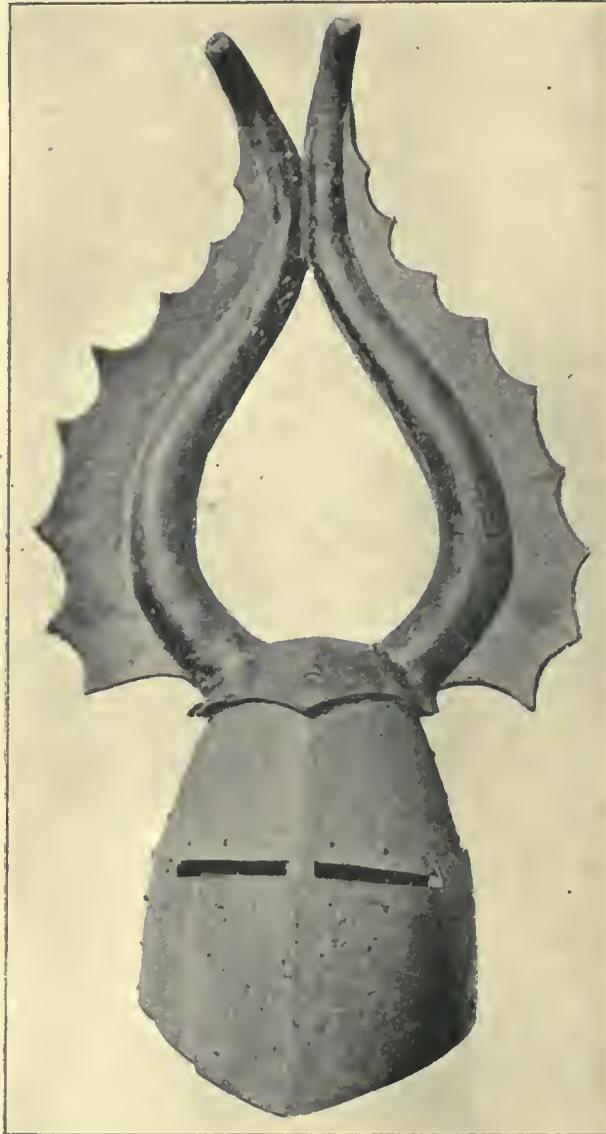


FIG. 328. THE PRANCK HELM

Showing its crest in position. Dr. Wendelin Boeheim suggests that the crest is earlier than the helm, but in the Author's opinion it is somewhat later

of canvas and leather once gilt. The late Herr Wendelin Boeheim states that the crest never belonged to this particular helm, and is of an earlier period. With Boeheim's first statement we agree; but in our opinion the crest is

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later, and not earlier, than the helm (Fig. 328). It is instructive to observe that all these fighting helms known to us have, in front, their lower cylindrical plate prolonged upwards in a narrow tongue, which being fastened to the top plate divides the ocularium into two parts. This feature is as a rule absent from helms of this period made for funerary purposes. It will also be seen that the true tilting helm has its lower edge turned under and over a wire, as in the case of the Pembridge helmet, in order that it shall not cut or chafe the surcoat; as otherwise certain movements of the head might render



FIG. 329. FUNERARY HELM

Founded on the lines of those of the latter part of the XIVth century, though in the Author's opinion it is of considerably later date; it would be impossible to wear the helm.

Collections: Herr Franz Thill and S. J. Whawell, Esq.

this possible. Our readers should bear in mind that none of the foregoing helms were worn so as to rest upon the shoulders, as was the case of the head-pieces of the same nature of later date which we shall describe in a later chapter; they were placed on the steel *cervelière* and early bascinet and so hung some little way above the shoulders. To keep the helm rigidly fixed it was wedged into place by an elaborately quilted lining, and was fastened to the backplate and breastplate, or their equivalents, by small chains or straps, such as we have noted as being in position on the monumental slab of Adolf von Sackenhausen in the *Kaiser Dom* of Frankfort (see Fig. 321). Another feature which is also noticeable in all fighting helms,

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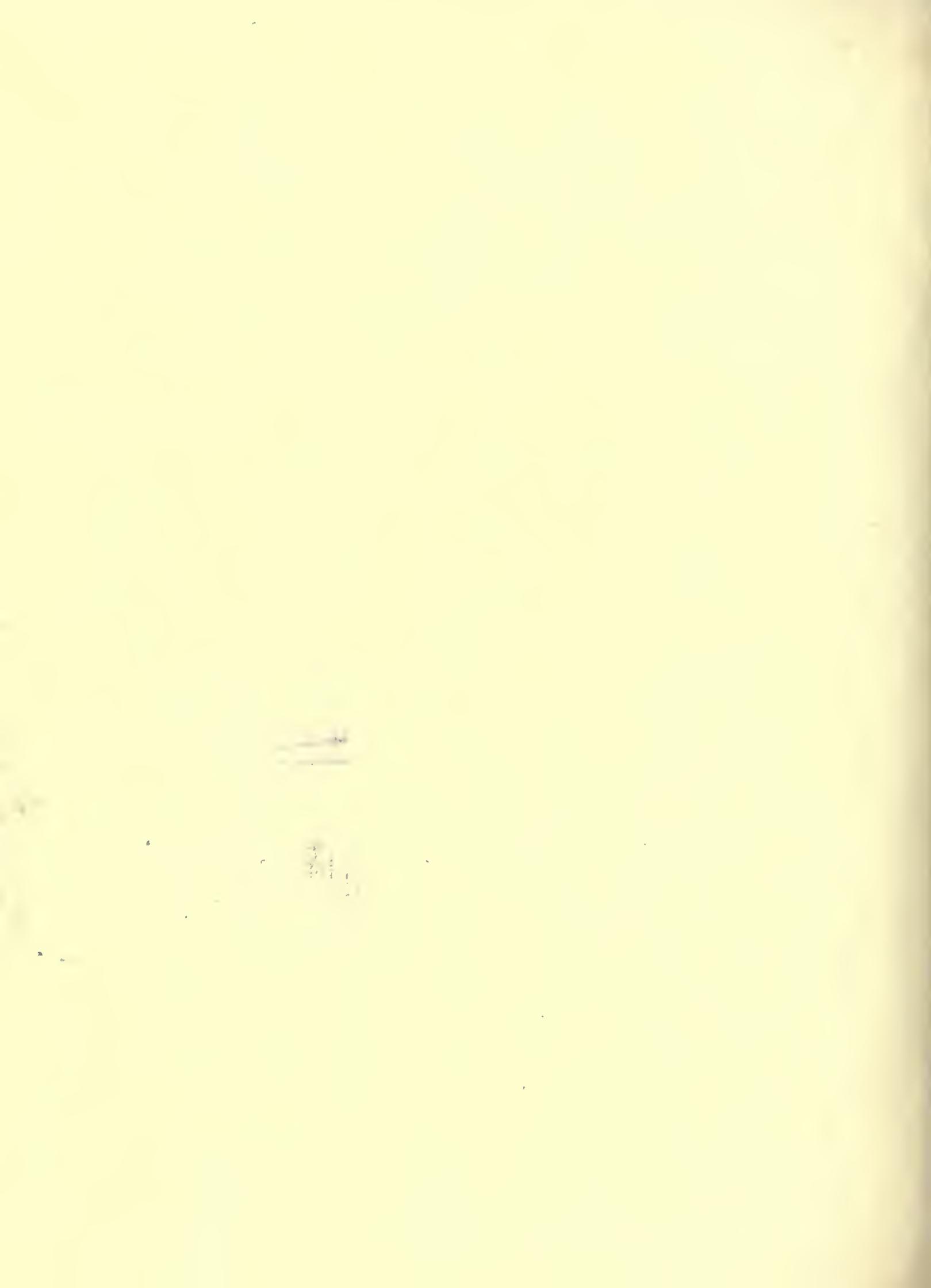
and is found lacking in funerary and pageant helms, is the thickening of the metal round the ocularium for the further protection of the vulnerable portion of the head-piece. Contemporary helms of this form made solely for funerary purposes exist however. There is a good mid-XIVth century example in the Francisco-Carolinum Museum at Linz, and another in the Copenhagen Museum; while in the collection of Lord Astor at Hever Castle is a specimen that came from Mgowo, in Poland. We illustrate a funerary helm of very exaggerated form, but perhaps a contemporary production, formerly in the collection of Herr Franz Thill (Fig. 329).

END OF VOLUME I









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