ARMOUR IN ENGLAND—GARDNER

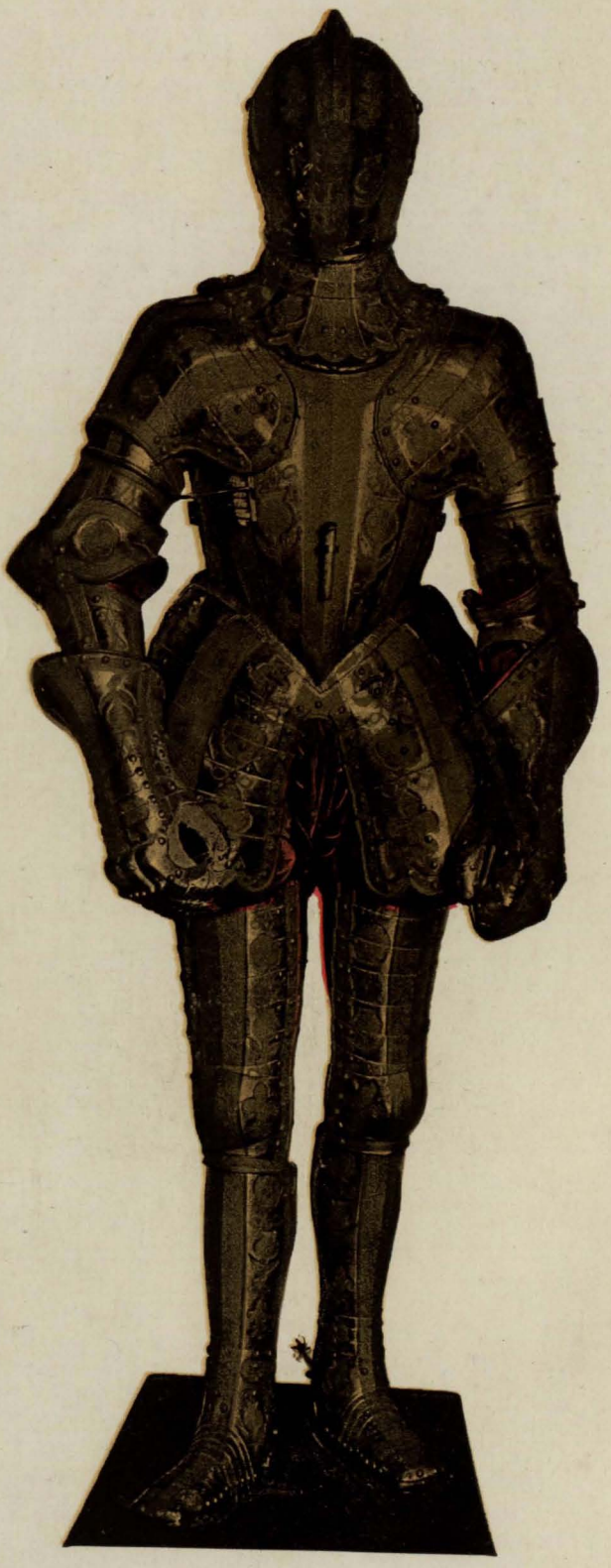


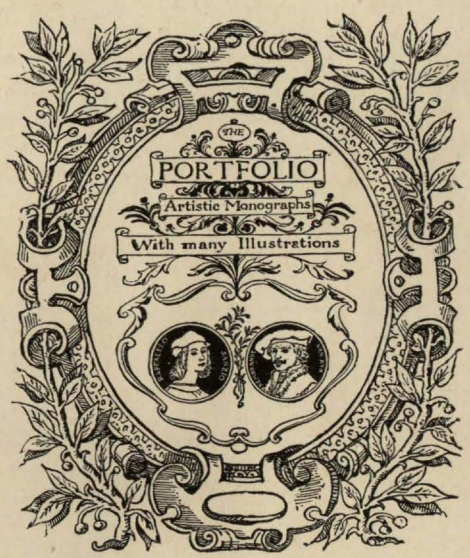
PLATE I.—Full suit of armour of Henry, Prince of Wales, in the guard-chamber at Windsor Castle. Attributed to William Pickering, master armourer.

ARMOUR IN ENGLAND

FROM THE EARLIEST TIMES TO THE REIGN OF JAMES THE FIRST

By

J. STARKIE GARDNER



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LIST OF ILLUSTRATIONS

COLOURED PLATES

ILLUSTRATIONS IN THE TEXT

ARMOUR IN ENGLAND

I

The Britons—An Early Age of Plate-Armour

It is the nature of islands to exhibit some peculiarities in their fauna and flora, and this insularity is no less pronounced in the manners and customs of the human beings inhabiting them. Thus even the stone implements of Britain of remote prehistoric days can readily be distinguished by the expert ; and we have the authority of Sir John Evans for regarding our types of bronze celts and weapons as both peculiar and indigenous. On first taking a place in history several strange and extra-European customs were noticed in these isles by Cæsar, such as the use of chariots in war, and dyeing the skin blue with woad: British nations were, moreover, frequently ruled by queens, and some practised the rare and difficult, and very far from barbaric, art of enamelling on bronze.

Modern opinion is at present opposed to the theory that the culture and civilisation of Western Europe originated exclusively in the East, and is inclined to regard our primitive arts and crafts as indigenous. That this must in a large measure be true appears sufficiently established; but the large and excellently-made bronze bucklers with concentric rings of bosses or studs, called the clypeus, the singular art of enamelling, the use of studs of coral for embellishing weapons and trinkets, the chariots of war and the government by women, all so remote from savagery, and so intimately connected with Eastern civilisation, compel the belief that

these isles did actually at some distant time possess a privileged and intimate communication with the East. The old and rooted tradition of a direct traffic in tin between Britain and Phœnicia cannot yet in fact be safely abandoned.

These arts and practices, however, only fall within the scope of our subject so far as they were applied to arms and weapons. One of these, very rarely used for the embellishment of arms in later times, is that of enamelling, a process unknown to the Romans. Philostratus, who wrote in the third century, referring to some coloured horse-trappings, observed, "They say that the Barbarians who live in the Ocean pour these colours on to heated bronze, and that they adhere, become hard as stone, and preserve the designs which are made in them." The bronze to be enamelled was cast with the pattern upon it, and the colours used were varied and bright, but opaque. Some brilliant horse-trappings with purely Celtic decorations and a few sword-hilts are known, but the bulk of cast bronze enamelled ware consisted of brooches, seal-boxes, cups, and vases, all Romano-British in design. A much rarer enamel is found on beaten or repoussé bronze armour. Pliny, in the Natural History, remarks that the Gauls were in the habit of adorning their swords, shields, and helmets with coral, but an immense demand springing up in India, it became unprocurable. We find accordingly that resort was had in England to enamel to reproduce the effect of the coral studs. In the British Museum is an oblong shield of Celtic design, found in the Witham, embellished with coral, but a smaller and handsomer shield beside it, found in the Thames, has gold cloisonné studs of blood-red enamel. The curious Celtic reproduction of the Roman peaked helmet, and the horned helmet found in the Thames, both from the Meyrick collection, are also decorated with small raised bosses cross-hatched to retain red enamel, some of which still adheres. The horned brazen helmet should, according to Diodorus Siculus, be a relic of, or borrowed from, the Belgic Gauls, who inhabited so much of this part of England. The gem-like effect of the enamelled studs, like single drops of red on the golden bronze, must have been most refined; it is altogether too restrained to have originated with the enameller, who usually covers his surfaces. The identity of workmanship of these arms with the Irish bronze and enamel work suggests that some of those who produced them

passed over and found with their traditions and arts a peaceful refuge in the sister isle.

Tacitus, however, states most explicitly that the Britons wore neither helmets nor armour, and were not able, therefore, under Caractacus, to maintain their resistance. Herodianus also, relating the expedition of Severus 250 years after Cæsar's invasion, presents an extraordinary picture of savagery. He observes that the Britons were a most warlike and sanguinary race, carrying only a small shield and a spear, and a sword girded to their naked bodies. "Of a breastplate or helmet they knew not the use, esteeming them an impediment through the marshes." They encircled their necks and loins with iron rings as an evidence of wealth, instead of gold, and went naked rather than conceal the tattoos of different animals which covered and gave a blue cast to their bodies.

In striking contrast to this picture are the large number of chariots employed in war and the extraordinary skill displayed in handling them. Cæsar states that Cassivelaunus, when totally defeated and a fugitive, was still accompanied by 4000 charioteers; the basis probably of Pomponius Mela's later statement that 4000 two-horsed chariots armed with scythes formed part of that chieftain's army. Having proved ineffectual against Roman discipline, this arm was perhaps soon abandoned, since we find little further mention of war-chariots, though cavalry did not cease to form part of a British army. In process of time the subjugated Britons must have become completely Romanised as to arms, and accustomed to wear the helmet, greaves, and corselet, either of one piece or formed of smaller and more flexible plates or scales. Though the manhood of the country enrolled in disciplined cohorts and legions had deserted it, Roman weapons must have been the arms of those who remained when the Romans finally retired from Britain in 410.

In the two succeeding centuries, which were to elapse before the country definitely inclined to become English, an intensely Celtic feeling, embodied in the legends of King Arthur and wholly opposed to Roman ideas, had time to spring up. Judged by their ornament, it is to this period that most of the bronze enamelled arms and trappings in the British Museum belong. The golden corselet found in a barrow in Flint, together with many traditions of the finding of golden armour, such as the helmet of pure gold set with gems found in a bronze vase and pre-

sented to Katharine of Arragon, suggest the idea that serviceable qualities became sacrificed to a love of display. At this time it is said the Britons, in obsolete and fantastic panoply, bore an evil reputation, as being vain and fruitful in menaces, but slow and little to be feared in action. Their frightfully demoralised state, if not greatly overdrawn by Gildas, called for a day of reckoning and the condign, almost exterminating, punishment which overtook them. The agents destined to execute the vengeance of Providence were the Frisian pirates, the scourge of the Channel, who had with difficulty been kept in awe by the most powerful Roman fleets. The country, left to the divided rule of clergy, nobles, and municipalities, and described as "glittering with the multitude of cities built by the Romans," presented a tempting and easy prey to these professors of rapine. They were Teutons, who relied mainly on the Fram or spear-like javelin, as when Tacitus described them, and still carried the round gaudily-painted buckler, though then strengthened with an iron umbo and rim. Their weapons had been perfected in a long series of grim experiences in actual war, and they had added to their equipment a sword and dagger, and some kind of simple headpiece. That they had adopted any complete defence of plate-armour in the Roman fashion is improbable, but they were apparently entirely unacquainted with chain-mail. In the history of armour in Britain this period, taken as a whole, can only be regarded as a very primitive age of plate. To be an efficient protection plate-armour must, however, be of an intolerable weight, at least to men on foot, making celerity of movement impossible. We cannot close the chapter better than by instancing the dreadful fate of the Æduan Crupellarians, related by Tacitus, who clothed themselves in unwieldy iron plate, impenetrable to sword and javelin. Though the main army was overthrown, these kept their ranks as if rooted to the ground, until, fallen upon with hatchets and pickaxes, armour and men were crushed together and left on the ground an inanimate mass. This lesson was not forgotten by the nations of Europe who fought on foot with Rome, and no such use of body-armour among them is again recorded.

II

The Mailed Warrior

THE appearance of the mail-clad warrior opens up an entirely new era in the history of European armour. The light plate defences worn by the Mediterranean nations, whether Greeks, Etruscans, or Romans, were never calculated to secure immunity from wounds ; and as a fighting equipment they went down before mail, as stone before bronze, or bronze before iron. Chain-mail body-armour is distinctly represented on the Trajan column, and wherever worn, whether by the Scythian, the Parthian who was armoured down to his horse's hoofs, or the dreaded Sassanian horse, it seems to have flashed like a beacon of victory, and its wearers ever appear in history as Rome's most dreaded and formidable foes.

The Scandinavian also, isolated so long and unknown in history, suddenly burst upon Europe as a new and even more redoubtable mail-clad warrior. How so remote a people became acquainted with chain-mail can only be surmised, but it was perhaps through some Scythian channel not open to Western Europe. That the ravaging Viking landed on our shores equipped in mail, the "war nets" of Beowulf, "woven by the smiths, hand-locked, and riveted" ; "shining over the waters" or in "the ranks of battle," is sufficiently recorded by the Chroniclers. Shirts of mail, called "byrnies," attributed to even the fourth and fifth centuries, are found in Danish peat-bogs fashioned of rings welded and riveted in alternate rows as neatly and skilfully as can possibly be, and all made by the hammer, if it be a fact that wire-drawing was not invented till nearly a thousand years later. The almost perfect specimen we figure, one-tenth the natural size, was found at Vimose, with portions of others. Some

have also been found at Thorsberg, and in a burial-place of Roman age in Jutland.

Besides the mail defence, the Danes were armed with a shield, an iron cap, lance, axe, and sword. Thus equipped they proved for a long time almost irresistible, and ventured on the most dangerous and desperate undertakings. When we reflect on their adventurous voyages, the reckless attacks on powerful nations made by mere handfuls of men, and the gallant pertinacity they at all times displayed, it is impossible not to admire their exalted courage. It is easy to detect a rugged poetry, almost chivalry of a kind, underlying the Viking nature, in spite of ruthless cruelty, while the exaltation of deceit when practised on an enemy into a virtue is but a germ of modern statecraft. Their lives depending at every moment on the quality of their weapons caused these to be invested, particularly the sword, with a mystic glamour, which scarcely died out with chivalry itself, and lingers even yet in the more important functions of state. The chieftain's sword was in fact his inseparable companion, known and endeared to his followers by a name symbolic of the havoc they had seen it wreak upon the enemy, and its fame in sagas was as undying as its owner's. Tradition elevated the maker of the sword of Odin, a smith, we must believe, who forged swords of uncommon excellence, into a demigod ; and has handed down the story of how he made a blade called Mimung so keenly tempered that when challenged to try conclusions with one Amilias, a rival, it sliced him so cleanly in two as he sat in his armour, that the cut only became apparent when, as he rose to shake himself, he fell dead in two halves. The name of this prince of craftsmen yet lives in the mysterious Wayland Smith of English folk-lore. Another vaunting smith Mimer was slain by the sword Grauer wielded by Sigurd ; and the sword Hrunting is made famous by its owner Beowulf, the father of English lyrics. A Danish sword in the British Museum is inscribed in runes Ægenkœra, the awe-inspirer. From the Danes the exaltation of the sword passed to the English, and we find Ethelwulf, Alfred, and Athelstan bequeathing their swords by will as most precious possessions, equivalent to a brother's or sister's portion. Thence it passed, in legend at least, to the Britons, King Arthur's sword Calibon, or Excalibur, presented ultimately by Richard I. to Tancred when in Sicily, being almost as famous as Arthur himself.

Even Cæsar is provided by history with a sword named "Crocea mors," captured from him in combat by our valiant countryman Nennius. The hilts of the Danish swords are described in the *Edda* as of gold, and Beowulf speaks of hilts that were treasures of gold and jewels. Canute's

FIG. 1.—*Hauberk, or byrnie, of chain-mail, of the fourth or fifth century, found at Vimose, one-tenth of the real size; and part of another, full size, from Thorsberg. From "Danish Arts," published for the Science and Art Department.*

huiscarles and Earl Godwin's crew had swords inlaid with the precious metals, and some English swords were valued at eighty mancuses of gold.

The origin of the remarkable veneration for arms and armour, so apparent in the history of chivalry, is thus traced to wearers of mail,

the first figures also to appear in something like what we regard as knightly equipment. The dress of Magnus Barefoot, described in 1093, differed probably but little from that of his predecessors, and consisted of helmet, a red shield with a golden lion, his sword called Leg-biter, a battle-axe, and a coat-of-mail, over which he wore a red silk tunic with a yellow lion.

The wearing of armour, particularly mail, on land, necessitated riding, and the northern rovers, finding the weight intolerable on their inland forays, took to horse whenever possible, harrying by this means an extent of country otherwise almost inaccessible. They even learnt in time to transport their horses over the sea, and in the ninth and tenth centuries landed in England from France as a mounted force, as their descendants after them did at Hastings. The English, on the other hand, rarely wore mail, though the spoils of the Danes might have furnished a fair supply, and they only used cavalry as a small force for scouting. An English king of the eighth century is, however, represented in mail by Strutt, and Harold and his immediate companions may have worn mail at Hastings, as represented in the Bayeux tapestry, and as he certainly did when assisting William in his war against Conan of Brittany. Handsome presents of Norman arms and armour were then made to him by Duke William. A little later we have the curious testimony of Anna Comnena, 1083-1146, that this mail, made entirely of steel rings riveted together, was wholly unknown in Byzantium, and only worn by the inhabitants of Northern Europe.

The definite conversion of the Northmen from sea-rovers to mounted men-at-arms when they settled in Normandy enabled them to lengthen their coats-of-mail, as well as their shields, lances, and swords, and to adopt many French manners and customs. But in facing the infantry wedge at Hastings, the time-honoured fighting formation of Teutonic stocks from the days of Tacitus, they did not disdain to fall back on the old Viking tactics of a pretended flight and rally, practised already by them during two centuries of warfare in England. That the English should have allowed their impenetrable ranks to be broken by so thread-bare a stratagem is indeed extraordinary.

The Norman Conquest introduced into England a permanent mail-clad cavalry as the chief strength of the battle, as in France, and infantry

was discredited until the disputes of the sons of the Conqueror led once more to an English infantry force taking the field. The mail coat of the cavalry had in the meantime been further lengthened, and changed into a complete sheathing of steel by the addition of long sleeves and mufflers falling over the hands; leggings covering the thighs, shins, and feet; and a capuchin-like hood only leaving the eyes and nose exposed, but which could be thrown back. Thus enveloped, with a

FIG. 2.—*Norman knights in mail hauberks and conical helmets. From the Bayeux Tapestry.*

thickly-padded garment under the mail, a conical or flat-topped steel helmet, a large kite-shaped shield, and long-reaching weapons, he had little to fear when opposed to light-armed cavalry or infantry. The mail and helmets were always kept bright, as we know, but Anna Comnena adds that even the shields of steel and brass were so brightly polished as to dazzle beholders. Combined with the pennons and banners of various forms, with their glittering emblazonry, the massed men-at-arms of that day must have presented a magnificent spectacle, as the Chroniclers so frequently remind us. The coat-of-mail remained with but trifling variations the chief knightly defence until the close of the

thirteenth century, and the protection it afforded was so complete that of 900 combatants who once entered battle in steel armour but three were slain. At Joppa in 1192, during a battle lasting from the rising to the setting sun, only three were killed on the side of the Crusaders ; at the battle of Lincoln only three, at Evesham (1260) one knight and two esquires, at Falkirk (1295) but one knight and thirty foot on the winning side. These somewhat random examples seem fairly to represent the loss on the side of the victors, though terrible massacres overtook the losers. The protection was such that Saladin's bravest warriors reported our men to be impenetrable ; blows, they said, fell as if on rocks of flint, for our people were of iron and would yield to no blows. But though so terrible on horseback, the mailed knight, as observed by Anna Comnena, was little dangerous when dismounted. Neither had the English failed to observe this, and thus directed all their efforts to dismount the enemy. They had been severely galled by the bow at Hastings, and they came to recognise it as the one weapon likely to render them really formidable to their Norman oppressors. Henry I. encouraged its use, and we soon find the English arrows described as falling in battle like a shower on the grass or as falling snow. In a skirmish at Bourgthéroude in 1124, the first discharge brought forty horses to the ground before a stroke was struck, and eighty men-at-arms soon fell prisoners into the victors' hands. At the battle of the Standard, the cloud of arrows pierced the unarmoured Scots, and chiefly contributed to the dreadful slaughter, set down at 11,000. The effects of missile weapons were such that the mailed period of which we are speaking saw three English kings fall victims to the bow, while a fourth, Edward I., escaped a like fate by a miracle. The accounts handed down of the extraordinary range and precision attained soon afterwards by this weapon appear wholly incredible in the light of modern toxophilite displays.

The cross-bow was an even more powerful weapon, whose use had been forbidden in war, but allowed by the Pope to the Crusaders in 1139. Richard I. appears to have introduced it into the English army, which became so expert in its use that in some of the sieges conducted during the twelfth and thirteenth centuries the enemies' walls could not be manned. It is related of Richard, both at the sieges of Acre and Nottingham, that he himself slew men with this weapon. The numbers of cross-bowmen

in our armies appear, however, to have been always relatively small. King John, with 400 knights, had but 250 cross-bowmen, used as skirmishers, keeping a mile in front of the army. The splendid army of Edward I. assembled at Poitou (1242), numbering 1600 knights and 20,000 foot, comprised but 700. The battle of Lincoln, however, was gained by them owing to their shot mowing down the horses of the barons, who were rendered helpless when dismounted. The cross-bow was at first bent by the hand and foot, but was afterwards of steel, when it required mechanical aids to charge it. The short and heavy bolts, called quarrels, struck with greater force than arrows, and the knight hit full on the head or breast by one was fortunate if only stunned. Instances are recorded of twofold mail and the quilted coat being penetrated by them. Cross-bowmen for a long time formed corps d'élite, the weight of the weapon and the armour causing them to be frequently mounted, and so early as King John the mounted "balistarii" were provided with one, two, or even three horses each, with carts to carry the quarrels and even the cross-bows as well. Notwithstanding superior accuracy in aim and penetrating power, it fell into disuse in England soon after the close of the thirteenth century, owing to its heavy weight and liability to damage by wet, and above all, on account of the greater rapidity with which arrows could be discharged from the long-bow,—in a ratio of something like ten to one.

Nothing is more constantly met with in chronicles than accounts of the destructive effects of missiles, whether from bow or cross-bow, upon the horses of mounted combatants; yet, apart from the poetic fancy of Wace, who mounts Fitz-Osbert on an iron-clad steed at Hastings, the first mention of horse-armour at all connected with English history is at the battle of Gisors in 1198, when Richard I. speaks of the capture of 140 sets in terms which plainly show that he then met with it for the first time. It has, however, been concluded, from the absence of any mention of horse-armour in English statutes until 1298, that it was unknown here till the close of the thirteenth century. At this time a man-at-arms in France received half as much again in pay if his horse was armoured, and in 1303 every man with an estate of 500 livres was bound to provide horse-armour. A mailed horse appears in the effigy of Sir Robert de Shirland in Sheppey, and a fine figure of a

steed completely clad in mail is among the figures of *The Painted Chamber*, published by the Society of Antiquaries.

The English custom of fighting on foot, it is almost needless to add, had been adopted by the Danish and even the Norman settlers here, and during the civil wars of Henry I., Stephen, and Henry II., the leaders on both sides, including the kings in person, fought their battles dismounted, rendering horse-armour of relatively small importance.

A permanent force was raised by a law of Henry II. in 1181, compelling every burgess or freeman to possess an iron headpiece, a lance, and either a mail hauberk or a gambeson, according to his means: and this was supplemented by the addition, under Henry III. in 1253, of swords and knives to the infantry equipment, and the calling up of a reserve of those possessed of less than 40s. of land, armed with scythes, long-handled axes, knives, and other rustic weapons. Soon afterwards a wild Welsh and Cornish infantry was enrolled, and we hear of lagers and intrenchments, and in 1302 one of the first really crushing defeats is inflicted on chivalry at the hands of burghers by the men of Bruges, who slew forty counts and barons at Cambray.

This extensive arming of the population led to the formation of bands of outlaws, who devastated the country, something in the manner of the free-companies of France at a later time. A young man named William, declining to acknowledge Lewis of France in 1216, drew together a thousand bowmen and conducted a guerilla warfare in the forests of Sussex. The still more renowned Adam Gordon infested the woody country between Wilts and Hants until Prince Edward at last, about 1267, overcame him in single combat. The ancient Ballads abound with instances of such exploits, which are embodied in the romance of Robin Hood.

A contemporary of Richard I. describes the equipment of an English foot-soldier as consisting of an iron headpiece, a coif and coat-of-mail, and "a tissue of many folds of linen, difficult of penetration and artificially worked with the needle, vulgarly called a pourpoint." He was taught to receive cavalry with the right knee on the ground, the left leg bent, the shield in the left hand and the butt of the lance in the ground with the point to the enemy. Between every two lances was a cross-bowman with a rear rank to load while the front shot. Against this formation

the Moslem cavalry's "surging charges foamed themselves away," and as at Waterloo, the retreating squadrons were charged again and again by our heavy-armed horse. On the other hand, the same tactics, when employed against forces largely composed of English archers, were

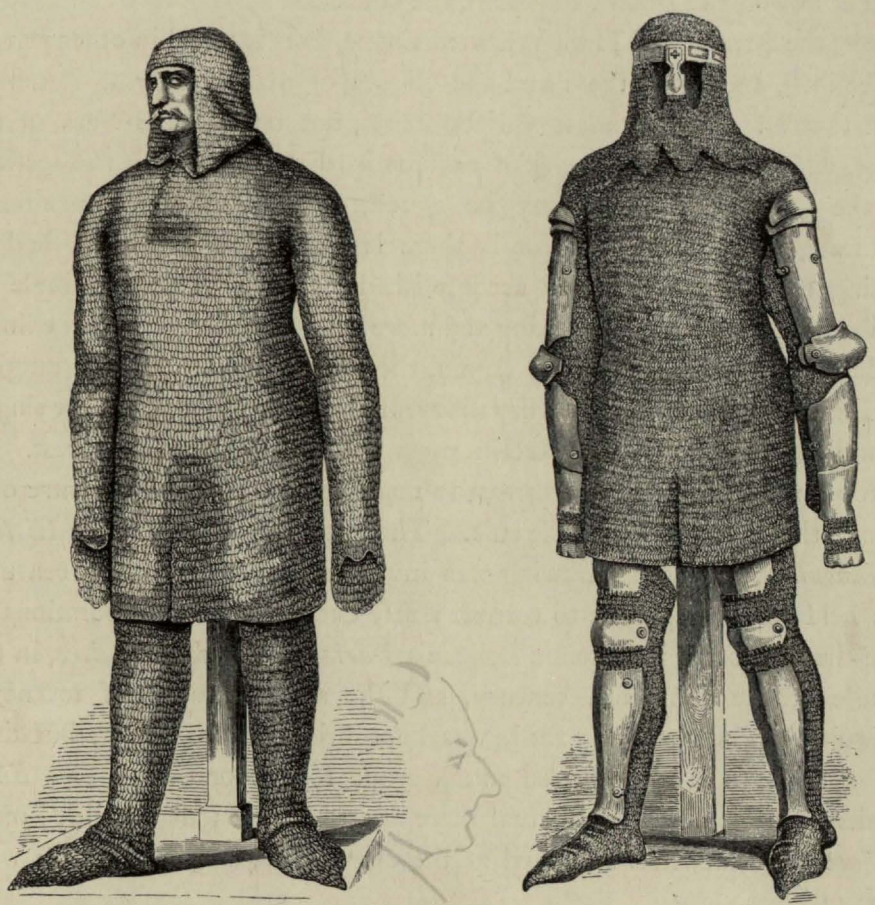


FIG. 3.

1. A complete suit of mail, with coif and mufflers, late twelfth century, said to have been found in a coffin in Goring Church.

2. A thirteenth-century suit, with reinforcing plates, said to have been found with the other.

unsuccessful; thus the Welsh in 1295 set their long spears on the ground with points towards the cavalry, but the Earl of Warwick placed an archer between every two horsemen and routed them. Wallace's massed pikemen, three years later, were broken by Edward's archers and military engines, and routed by the men-at-arms, who dashed into the openings.

It does not appear that any special study of mail has been undertaken, or that any good collection of mail has been formed, nor have the many varieties been arranged chronologically in the order in which they appeared. Materials for such a study exist, though not very abundantly, in the Tower, the British Museum, the collection at Woolwich and Dover Castle, the Armourers' Hall, Warwick Castle, Parham, and in other private collections, and from these and the effigies of mailed knights it can be seen that an almost endless variety exists, not only in the sizes of the links, which vary from $\frac{1}{6}$ to $\frac{3}{4}$ of an inch in diameter, but in the sections of the wire used, which may be round, flat, triangular, trapeziform, quadrate, polygonal, etc. Nor is there less diversity in the method of closing the rings, which was accomplished either by welding, single or double riveting, with a flattening and more or less overlapping of the links, soldering or merely butting. Again, there are many ways of arranging the links, producing mail of very different weights, either double or single, as well as mail in which certain parts are stronger than the rest. In European mail four links are usually made to pass through a centre one, though this is not an invariable rule. The statement in Beckman's *History of Inventions*, that wire-drawing was invented in the fourteenth century, was held for a long time to furnish a safe date, but two Corporations of wire-drawers occur in Etienne Boileau's *Paris Livres des Mestiers*, in the middle of the thirteenth century, and the art is actually of unknown antiquity. The mail, we read, was kept bright by barreling, but does not appear to have presented much scope for decoration. The *Edda* speaks of a byrnie of gold, and there are other allusions to gilded mail, and we find hauberks scalloped at the extremities, and finished off with rings of brass.

Two suits of mail (see Fig. 3), illustrated in the catalogue of the loan collection of Ironmongers' Hall in 1861, now in the possession of Mr. J. E. Gardner, F.S.A., are formed of unriveted links, the ends of the rings being merely butted. Their authenticity has therefore been questioned. The description of them printed in 1861 was to the effect that they had been found in a chest or in a vault of a church in Oxfordshire. In the manuscript catalogue of the collection at Parham is a note to the effect that they were found in stone coffins built in the wall of the church at Goring, Berks, supposed to be coffins of the Beche or

De Beche family, and contained skeletons, a third suit having been destroyed except the hood, which is now at Parham. However this may be, the larger suit affords a good representation of the mailed figure of the end of the twelfth, and the small one of that of the thirteenth century, with reinforcing pieces of plate. The possibility of their having been made for lying in state or funerals deserves perhaps a passing note, especially in view of their respective dimensions; and it is in any case very questionable whether the prices paid for them would have remunerated the labour of producing forgeries. Another hauberk of large size was found in Phœnix Park, Dublin, thirty years ago, but a silver badge of an O'Neil found with it showed it to have been buried not

FIG. 4.—*Mail coif, flat-topped, with leather thong.*
From the effigy of William Longespée, son of Henry II. by Fair Rosamond, who died 1227. Salisbury Cathedral.

FIG. 5.—*Mail coif, round-topped, with jewelled fillet.*
From the effigy of Robert de Vere, Earl of Oxford, died 1221. Hatfield Broad-Oak Church.

FIG. 6.—*Mail coif, conical top, with coronet and mantelet.*
From the effigy of John of Eltham, Earl of Cornwall, died 1334. Westminster Abbey.

earlier than the middle of the fifteenth century. In the thirteenth century the curious and well-known banded mail appears on effigies and other representations, which Mr. J. G. Waller, F.S.A., regards as caused by the passing of a leather thong through each alternate row of rings, for the sake of extra strength. This variety may have originated with the single thong passed through the links of the coif over the forehead and below the knee, seen in early effigies like that of William Longespée (Fig. 4) at Salisbury.

The defence of the body was for a time wholly left to the mail with the underlying gambeson, and the shield, but the head had always

received the additional protection of a cap of steel, called the chapelle-de-fer, worn indifferently under or over the coif of mail. Effigies of the first half of the thirteenth century show it both round and flat at the top (Figs. 4, 5, 6, and 7). The nasal piece associated with the conical helm (Fig. 2) of the eleventh century tended to disappear in the twelfth.

The fact that English armies under Richard I. were made to abandon their ancient formation and to engage on horseback, and to rely on the battle-axe and mace as their chief weapons, and the presence of the large bodies of archers and arbalisters which he brought into the field, led to the introduction, probably by Richard himself, of the great heaume worn over the steel cap and padding, and only put on at the moment of battle. It is first seen on Richard's second seal, and consisted of a cylinder, usually flat-topped, with two horizontal clefts for vision, and strengthened by bands crossing each other over the face and top. Breathing-holes were added towards the middle of the century, and the grated front was introduced soon after, to admit more air. This is seen in the first seal of Henry III., and another advance, the movable vantail, hinged at the side, in his second seal. An oft-described specimen in the Tower weighs 13 lb. 8 oz., but is regarded by Lord Dillon, the present Curator of the Armouries, as a forgery. About 1270 we sometimes find it with a round top, though the flat top did not go quite out till the beginning of the fourteenth century. The attempts made to seize and drag it off, so often noticed by Chroniclers, led to its being secured by a chain. The further changes seen were improvements in the visor, giving better vision and more air, fixing it more securely, and so transferring the weight from the head to the shoulders, and changing the flat top to a cone, on which blows fell with less stunning effect.

These heaumes, by concealing the face, intensified a difficulty already felt at Hastings, when Duke William was obliged to raise his helmet to contradict a rumour of his death. Recognition, now become impossible, led to the use of heraldic badges, at first painted on the helm, as they already were on the shield ; and of crests, first in the fan or peacock's feather shape, as on the second seal of Richard I., and afterwards to more distinctive crests and badges. The Crusading Chroniclers relate that the crests were brilliant with jewels, and they are represented as circled by coronets in the seals of Henry III. and his son Edward. The heaume of

St. Louis, 1249, was gilded. Richard himself, in gala dress, on the day after his marriage with Berengaria, is described by Vinsauf as wearing a Damascus sword with gold hilt and silver-scaled scabbard, his saddle inlaid with precious stones, his horse bitted with gold, and in place of the high defensive plates before and behind in general use two little golden lions with raised paws.

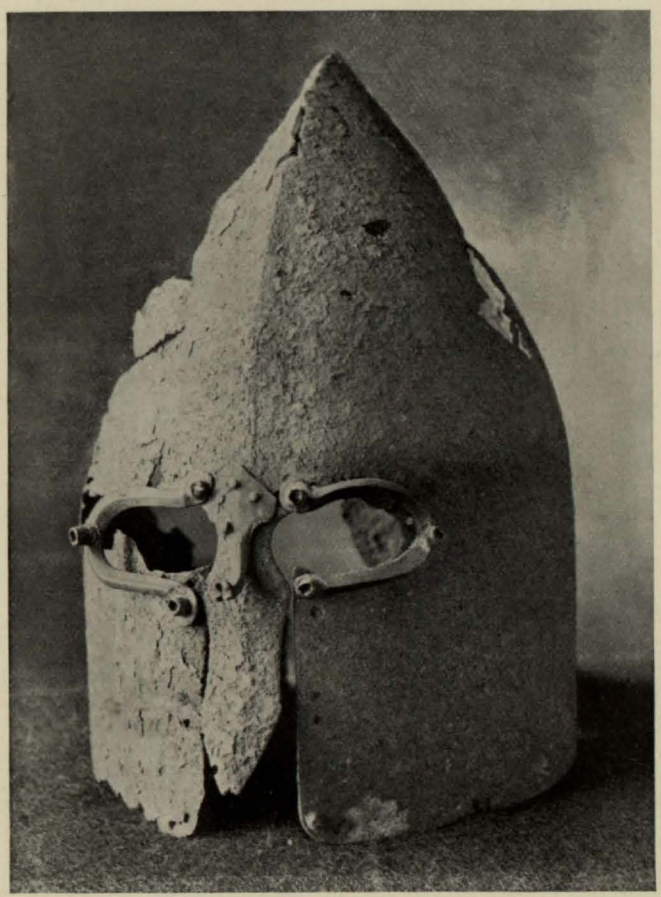


FIG. 7.—*Helmet of bronze and iron, from County Down. Twelfth century.*

Next to the headpiece the most urgent necessity was to protect the breast against the direct shock of the lance, and for this a rigid defence was of the utmost importance. Thus a beginning was made even during the mail period towards the introduction of plate-armour. Jazerant and scale armour of small plates had been adopted to this end by

the Franks, and Charlemagne had introduced the classic breastplate. Something of the kind was perhaps even known to the Viking, and by the twelfth century Scandinavians certainly used a defence called a briostbiorg beneath the mail, extending from the neck to the waist. Chroniclers allude to shining breastplates long before there is the slightest appearance of them in illustrations, though from the time that surcoats were worn over the armour it becomes difficult to see what is beneath. Allusion is often made to a plastron-de-fer; and in the combat between Richard, when Earl of Poitou, and William des Barres we read that an iron defence was worn over the breast. One of the effigies in the Temple Church is equipped with a back and breast plate of single plates united by straps. It is stated that the bodyguard of Henry III., 400 strong, which fled at the battle of Lewes in 1244, wore breastplates; and in 1277, 300 cavalry so armed were sent to Wales.

Following the head and breast, the limbs received protection from plate-armour, the knees and shins of mounted men-at-arms being peculiarly exposed to injury in melées with infantry, from blows of the two-handed battle-axe and mace. Additional security was absolutely essential against these weapons, which were introduced both for horse and foot by Richard I., and had grown in favour ever since. These even penetrated mail, the Irish axe in particular being reputed to cut off limbs in spite of its protection. The Scandinavians, with their keen military instincts, had provided themselves in the twelfth century with knee-caps of iron attached to overalls worn over the mail. Our earlier mailed effigies, however, show no special defence for the knee, though the one at Salisbury, attributed by Stothard to William Longespée, already noticed, has a stout thong passing between the links of mail just under it. The effigy of Robert of Normandy, of which there is a cast in the National Portrait Gallery, shows a thick overall under the chausses of mail, and drawn over the mail chaussons at the knee (Fig. 8, No. 1), and a similar appearance is seen in the first seal of Richard I.; in the sleeping guards of the Easter Sepulchre at Lincoln (Fig. 9); and other monuments of the same date. In the effigy attributed to William, Earl of Pembroke, in the Temple, who died in 1289 (Fig. 8, No. 2), and in Stothard's drawing of the effigy at Whitworth, an appearance of a thick cap is also to be seen, perhaps the extremity of a padded overall

overlapping the knee; and in other examples the thick quilted gambeson leg-defence is clearly seen below the mail, covering the knee, and in the case of De Vere, who died 1221, it has the interesting addition of an octagonal plate (Fig. 8, No. 3), apparently of iron, over the knee-cap. The effigy, called the second Longespée, at Salisbury (Fig. 8, No. 4), about 1260, exhibits an apparently double thickness of mail at this point, caused by the overlapping of the chausses and chaussons, with

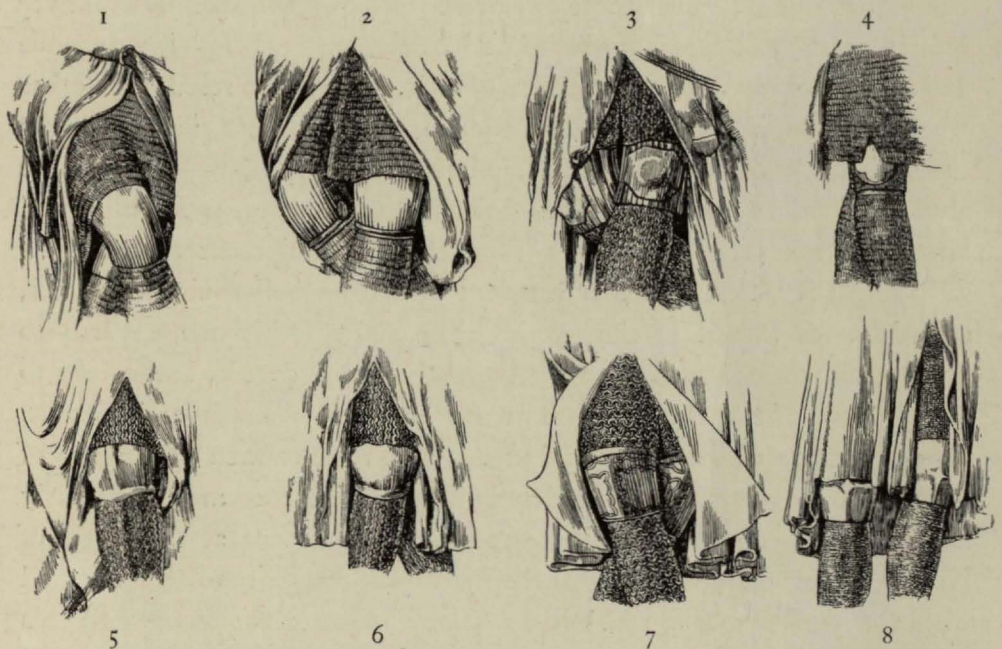


FIG. 8.—*Illustration of the development of plate-armour.*

1. The gambeson appearing below the chausses, but covering the chaussons of mail, forming an extra protection to the knee. From the effigy of Robert of Normandy.
2. The same, but apparently with an extra applied cap. From the effigy ascribed to one of the Pembrokes in the Temple Church.
3. The quilted gambeson appearing below the chausses and drawn over the chaussons, with the additional protection for the knee-cap of an octagonal plate. From the effigy of Robert de Vere, Earl of Oxford.
4. The chausses and chaussons overlapping, forming a double thickness of mail, with the addition of a quatrefoil plate over the knee-cap. From the effigy attributed to the second Longespée at Salisbury.
5. A ridged knee-defence of cuir-bouilli or plate enveloping the knee, over the mail. From the effigy of Robert Ros in the Temple.
6. Globose knee-cap of Aymer de Valence. Westminster Abbey.
7. Decorated knee-defence from an effigy in Whatton Church.
8. Cross-ridged knee-defence from an effigy of Robert de Bois.

the addition of a circular plate with a quatrefoil upon it. Contemporary Chroniclers also mention that greaves were worn by knights

in the time of Richard I., though the earliest manuscript illustration of them occurs in Matthew of Paris's *Lives of the Offas*.

The feet were cased in mail, and the spurs were simple straight spikes or goads, perhaps worn on one heel only and called the prick-spur. Under the early Plantagenets the point was fixed on a ball, while the rowel spur is seen in the monument to Le Botiler of the reign of Henry III.

Under the heroic Richard the powers of defence seem to have definitely triumphed over those of attack. Knights sheathed in mail over quilted work, and wearing the great battle-helm, appeared invulnerable and able to encounter the most fearful odds, and even to rescue each other when dismounted amidst swarming enemies. The further changes during the mailed period were in the direction of military display, which has always offered an attractive field. Whenever the pressure for improved armament was relieved through the defensive equipment for the time satisfying the wearer, whether a naked savage or well-equipped soldier, attention was turned to the warrior's personal embellishments, partly to gratify the wearer's vanity, partly to captivate and dazzle, but chiefly to affright and awe the enemy. The fact that the French and English wore the same armour and equipment, and the common occurrence of internecine wars at this time, rendered distinguishing costumes particularly necessary. By simply throwing away their cognisance at the battle of Noyon, Peter de Maule and others escaped recognition and mingled with the pursuers, while Ralph de Courci mistook the French for his own side and was taken prisoner. Nothing but the different-coloured crosses sewn to the garments of the French, English, and Flemish Crusaders served to distinguish them, and white crosses alone distinguished the party of Simon de Montfort, 1264, from their enemies. Nothing approaching to any uniform is heard of in this age, unless when Richard of Gloucester traversed France in 1250, with a retinue of forty knights equipped all alike, with new harness glittering with gold, on his visit to the Pope.

The beautifully-sculptured guards of the early fourteenth century Easter Sepulchre in Lincoln Cathedral (Fig. 9) present fine examples of the costume of the knight armed with the mace, sword, and shield towards the end of the mailed period. The bassinet on the figure to the right is particularly noteworthy.

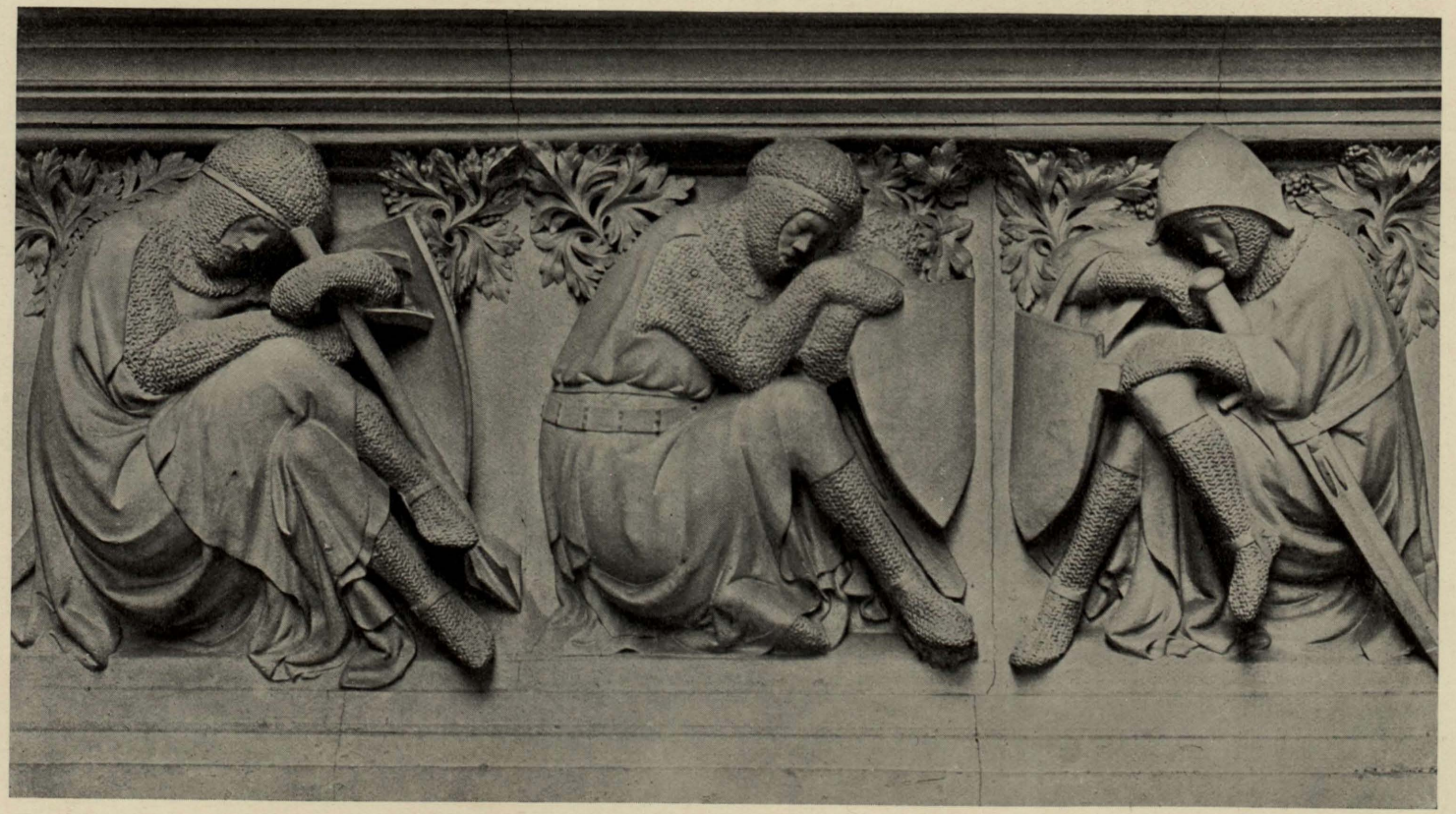


FIG. 9.—*The sleeping guards, from the Easter Sepulchre in Lincoln Cathedral.*

III

The Transition Period—From about the Reign of Edward I. to that of Richard II., 1272–1399

THE warrior sheathed in mail, mounted on his charger, whether pricking alone or in troops over hill and dale, was a picturesque and portentous figure, and when massed for battle presented an awe-inspiring sight. The gray burnished steel, glittering in the sun or under lowering skies, relieved by the fluttering pennons and banners and emblazoned shields, formed a picture that the old Crusading Chroniclers loved to dwell on, filling the imagination with those great gatherings of the chivalry of Europe. In the days of the last of the Paladins, of Godfrey de Bouillon and Richard Cœur de Lion, the dress of burnished mail was the knight's especial pride, and no garment concealed it. But as progress and love of change are universal, and the mail itself could not well be embellished, an embroidered surcoat was worn over it in the more degenerate days of John and his son Henry, concealing all but the limbs and head. This garment became the vehicle for distinguishing marks and colours, like the modern racing-jacket. A little later, when emblazoned with heraldry, it served to distinguish the individual. The transfer of the surcoat from under to over the mail gave rise to the custom of concealing the steel panoply under rich materials, which distinguished the Transition Period in armour. While it lasted we literally and constantly meet with the "iron hand under the velvet glove." This and the continual piling of one coat of defence upon another, in the fruitless attempt to secure immunity for life and limb, are the chief characteristics of the period we are now to treat.

Until the Transition, the mounted knight, cap-à-pied in mail over the quilted gambeson, with the steel cap, and the great helm for the supreme moment of combat, seemed completely invulnerable unless to missile weapons mechanically projected. Few men-at-arms fell in actual battle on the winning side, and great slaughters were only consequent on the complete rout of one of the parties. Under the warlike Edward I. the powers of attack must have gathered renewed force, for a long period of tentative changes set in which finally ended in the suit of mail being completely hidden beneath an outer shell of steel plates. The qualities of steel for offensive weapons must also at this same time have undergone marked improvements, and we now begin to hear of definite seats of manufacture attaining world-wide celebrity. Cologne, Lorraine, Poitou produced weapons which are said to have pierced mail and quilted armour with ease. The heavy blows given by the battle-axe and mace, used by horse and foot, must, however, have been chiefly instrumental in introducing extra means of defence. These were by no means at first universally of steel, for cuir-bouilli or boiled leather, a very impervious substance when properly prepared, seemed at one time likely to rival it for general use ; and trial was made of every other kind of material that could be used for defence, such as horn, whalebone, ivory, padded wool, leather, either alone or strengthened with metal studs or splints, brass, and small plates of iron fixed to textiles. It is almost certain that for a time the moulded surface of cuir-bouilli, with its gilded and perhaps coloured surfaces, was preferred to steel. During this tentative period every combination of these materials with chain-mail is to be met with, and the triumph of steel-plate armour only became definite after every possible substitute, combined in every practicable way, had been tried either at home or abroad and found wanting. It is at least improbable that any armour pictured with enriched designs at this date was of steel.

It would be impossible within the limits of this work, and of little interest, to endeavour to describe the constant changes, often due to individual caprice, that occur ; for when groups of soldiery are represented, even long after the Transition, it is rare to find two individuals accoutred in precisely the same manner. We may rest assured, however, that each piece as it successively appears was introduced to meet some new perfection in the weapons of attack, or to cope with some new tactics, in short,

PLATE II.—Second suit of Sir Henry Lee, master of the armoury, reduced fac-simile of No. 19 in the Armourer's Album, in the South Kensington Museum.

to protect some part that had been proved by the practical experience of armed strife to be vulnerable. These additions were naturally subject to modification, according to the passing dictates of military display, or the changing fashions of civilian dress.

Fig. 10 is taken from one of the English MSS. most valuable for the knightly costume of the Transition. The armour is in this MS. almost entirely mail, of the banded variety, worn beneath a surcoat, which is hardly ever emblazoned. Plate-armour is only represented by the knee-caps, with an occasional roundel and shoulder-plate. The great helm, always with a fan-crest, the chapelle-de-fer worn beneath or above the

FIG. 10.—*Melée.*

From the early fourteenth-century English MS. known as Queen Mary's Psalter, 2 B. vii., in the British Museum. The combatants are in banded mail and long surcoats, and some wear the great helms with fan-crests. Ailettes and knee-caps are the only plate-armour visible. Some of the horses have long housings and also bear the fan-crest.

mail coiffe, the bassinet, often visored, and the broad-brimmed round helmet are worn, except in jousts, quite indifferently.

The head, being the most vulnerable part of the body and the most difficult to protect, received the greatest amount of attention. The great helm, with bands and cross-cuts for the sight, continued in use throughout the Transition, but with a sugar-loaf crown, and rendered less insupportable in the reign of Edward I. by transferring the weight from the head to the shoulders. It was occasionally of brass—Chaucer mentions the knight's "helm of latoun bright," a metal used so far back as Henry I.—and much more frequently of cuir-bouilli, as in the tourna-

ment at Windsor in 1278, when twelve of the thirty-eight knights had gilded helms, and were called digniores. There can be no doubt, however, that a helm of Poitou steel was even then the surest defence.

To the custom of hanging arms in churches we are indebted for the preservation of all the most valuable historic pieces. The first record of this poetic usage occurs early in the thirteenth century, when William of Toulouse hung his helm and splendid shield over St. Julien's tomb at Brives, and his lance and sword, bow and quiver, outside. By the middle of the century it had become the practice, when a brave knight died, to hang his shield and helm on the walls above his grave, and it appears in addition, from the instance of the King of France after the battle of Cassel in 1328, that the victor in some cases presented his arms to the nearest church. The helm of the Black Prince, still suspended above his tomb at Canterbury (Fig. 11), is an illustration familiar to all. By the kindness of Sir Noel Paton we are enabled to present an even finer helm (Fig. 12), in more perfect preservation, which formerly hung above the tomb of Sir Richard Pembridge, K.G., in Hereford Cathedral, who died one year before the Prince of Wales, in 1375. Its admirable workmanship has been fully described by Baron de Cosson, its fine steely quality being such that no penknife would scratch its polished surface. It is formed of three pieces—the cone, the cylinder, and the top-piece, welded so beautifully that no seam is visible, and these are joined by round-headed nails clinched on the inside. Every practical detail, down to the minutest, has received careful attention. The metal is thickened and turned outwards round the eye-piece, which is thus efficiently guarded, and the bottom edge is rolled inwards over a thick wire, so as not to cut the surcoat. These and other details given by Baron de Cosson in the Catalogue of Armour exhibited at the Royal Archæological Institute in 1880, show conclusively that this specimen at least is a real war helm, fitted to resist and to strike fire under the shock of a lance that might unhorse its wearer. The conical helm was worn over the visorless bassinet next described, as the previous helms had been worn over the chapelle-de-fer, and being only donned in the hour of danger, is rarely represented in monuments, except as a pillow under the head. When worn the face was invisible and recognition impossible, so that a moulded crest of linen, leather, or some light

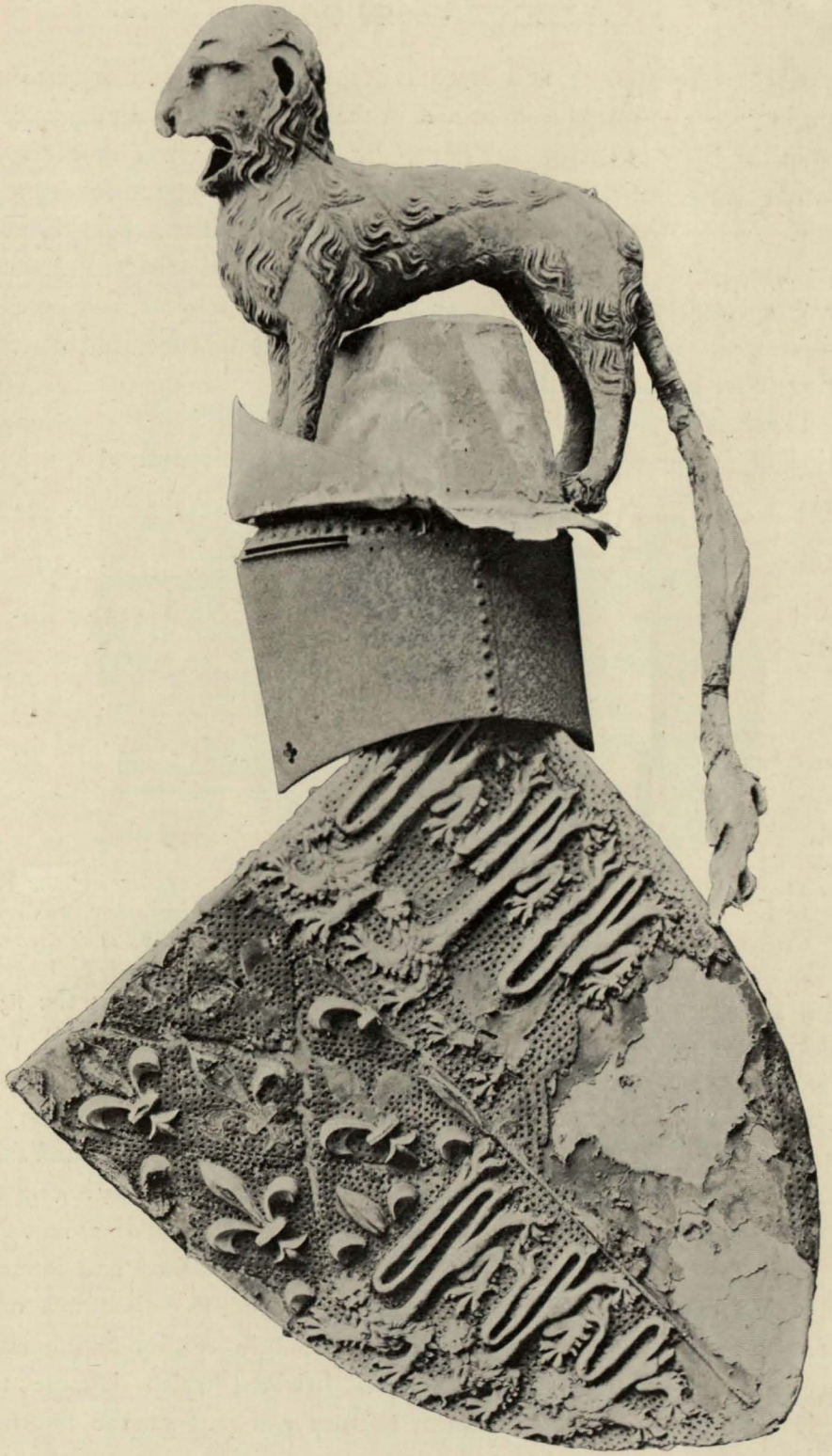


FIG. 11.—*The helm and crest of the Black Prince, with his shield, from his monument in Canterbury Cathedral.*

material surmounted it and became its most important feature. A mantling was also introduced, at first in the simple form of a puggaree, as seen in the effigy of the Black Prince (Fig. 16), but later of more ample dimensions, fantastically shredded to represent the supposed rents of battle. When the taste for military display increased, these mantles were usually of scarlet lined with ermine. A wide-rimmed helm is often represented as worn over or in place of the bassinet, and jewelled and crested. This form reappears continually, its first introduction dating so far back as the Bayeux tapestry.

The bassinet, used with or without the helm, enjoyed a prolonged period of favour from Edward I. to Henry VI. It differed from the

FIG. 12.—*The helm of Richard Pembridge, K.G., from Hereford Cathedral. Sir Noel Paton.*

FIG. 13.—*Bassinet from the tomb of Sir John de Melsa, Aldborough Church, Holderness. From a photograph by Baron de Cosson.*

older chapelle-de-fer worn with the hood of mail, in having the mail hung round it, instead of passing over or under it. This mail, now called the camail or gorget, was laced to a series of staples along the edges of the bassinet and fell like a curtain on to the shoulders. At the outset merely a skull-cap, it was gradually prolonged at the back and sides so as to leave only the face exposed. Early in the fourteenth century its appearance was profoundly modified by the addition of a movable visor, at first hinged at the side, but subsequently raised and lowered from above the forehead. Being readily removed, the visor was only worn in action, and is thus rarely represented in effigies and brasses. No helm was worn over the visored bassinet, which became the battle head-piece of the fourteenth century and part of the fifteenth,

the helm being reserved for jousts and tournaments. We are able, by the kindness of Baron de Cosson, to give an illustration (Fig. 13) of a real bassinet of large size, from the tomb of Sir John de Melsa in Aldborough Church, Holderness. It is described in the Catalogue of

FIG. 14.—*A bassinet transformed into a sallad in the fifteenth century. From Sir Noel Paton's collection.*

Arms already referred to as of the second half of the fourteenth century, and was worn with a large visor. A second bassinet is illustrated (Fig. 14) from Sir Noel Paton's collection, described by Baron de Cosson as transformed into a sallad about the middle of the fifteenth century. Fine bassinets are in the Tower and at Woolwich, and in the Burgess, Christy, and Wallace collections, all happily belonging to the nation, and

in Warwick Castle and at Parham, but none are directly connected with English wearers. The beaked visor, represented in so many manuscripts of about the close of the fourteenth century, is a fine defensive and not unpicturesque form. There are several real examples in the Musée d'Artillerie in Paris, two of which are regarded as English.

The bassinet, like the rest of the knight's armour, did not necessarily exhibit a surface of plain burnished steel. It was frequently covered with leather, as mentioned in the inventories of Humphrey de Bohun, 1322, and of Dover Castle, 1344; while the King of France at one time wore his bassinet covered with white leather. One of cuir-bouilli, in Simon Burley's inventory, 1388, is coloured white and green. It was also tinned or gilded, and even of pure gold, as prizes for tourneys, or like one set with gems, sent to Edward I. by his father-in-law in 1334. In a bequest of William Langford, 1411, is a headpiece covered with red velvet, and actual specimens so covered are not unknown. The richness of the decorations bestowed on these helmets is shown in the goldsmith's account of one made for the King of France in 1352, and of another made in the same year for the Dauphin with a band of forty large pearls. Effigies and brasses show that coronets and jewelled fillets commonly adorned them, even in the case of simple knights, and that these are not imaginary decorations may be gathered from Froissart, who mentions that the King of Castille actually entered a battle in 1385 with his bassinet enriched with 20,000 francs' worth of gems. Sir Guy of Warwick, in the Romance, is given a helmet adorned with a circle of gold set with most precious stones.

Some notable champions, like Sir John Chandos and the Earl of Warwick, prided themselves on a disregard of danger and habitually fought without a visor, yet the tendency to close every crevice with plate defences developed continuously, and the frequent accidents at tourneys, when the lance-point glanced upward and entered the throat under the camail, led to the introduction, about 1330, of a gorget of plate or scales, which with the visor converted the bassinet into a closed helmet.

The defence of the breast was always considered next in importance to the head, and fourteenth-century inventories constantly refer to "pairs of plates large," perhaps like those till recently worn in Persia, corsets de fer, cors d'acier, brust plate pour justes, and other defences of plate.

Chaucer writes, "Some would be armed in an haubergeon, a bright breastplate and a gypoun." The globose form given to the chests of effigies, such as that of the Black Prince, seems to imply the presence of a rigid defence under the emblazoned surcoat.

The limbs began to be definitely protected over the mail in the second half of the thirteenth century. Effigies and manuscript illustrations of that date commonly represent globose knee-caps, sometimes ridged down the front, and usually gilt. In the fourteenth century they are always present and frequently treated very decoratively, with shields, roundels, scalloped edges, etc. The technical name for these appendages is "Genouillière," or "knee-cap." Subsidiary plates

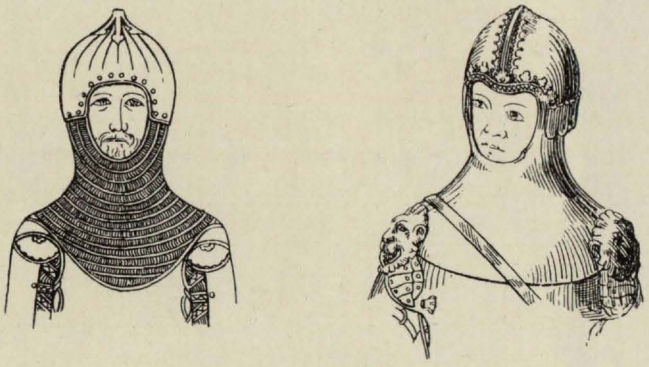


FIG. 15.

1. Example of a ridged bassinet with banded camail, from the brass of Sir John d'Abernon, died 1327.
2. Combed and jewelled bassinet from the effigy in Ash Church, of about the same date.

often appear below the knee, and sometimes above it, and are continued under the mail.

The greave was a rigid gaiter fitting at first only over the front of the leg below the knee, but afterwards enveloping it; and it was either of metal or cuir-bouilli. When seen on English fourteenth-century monuments it usually seems to be of steel fitting closely over the mail, and laced or buckled at the back, but at times it is so richly decorated as to suggest cuir-bouilli. Greaves are usually omitted on early monuments, and are only commonly seen when they had become an integral part of the suit of armour. As yet they were not habitually worn except in battle, and knights were not at this time represented in their effigies accoutred for war, but in ordinary military costume. Thus the effigy

of Aymer de Valence shows no plate armour, except the genouillière; but the two mounted figures of the canopy present the visored bassinet, the high gorget, the arm and elbow plates, the tubular greaves and steel sollerets for the feet. The tubular leg defence is not seen in earlier representations, and its introduction may coincide with the first recorded appearance in the field of large bodies of Welsh armed with long knives. It was usually hinged and buckled, and becomes more general as the century advances. This appears in the inventory of Piers Gaveston, 1313, who possessed three pairs of such greaves. Monstrelet relates that the bailiff of Evreux, sallying out without his greaves, had his leg badly broken by the kick of a horse.

Defences of plate armour for the feet are called sollerets, and are first, if somewhat indistinctly, visible in the small equestrian figure on the canopy of the tomb of Edmund Crouchback, Earl of Lancaster, in Westminster Abbey, the mail not being continued over the front of the feet as in the older effigies. One of the small equestrian figures of the adjoining tomb of Aymer de Valence has the feet, though mutilated, distinctly covered with small rectangular plates, arranged longitudinally in continuation of the greaves. In the D'Abernon and other brasses of the second quarter of the fourteenth century laminar plates are fastened across the upper part of the foot. Other varieties are the scaled sollerets of the De Cheney brass, 1375; the De Sulney brass, with sollerets of laminar plates, and one large plate over the instep; the Littlebury effigy, with longitudinal plates like those of De Valence. In the effigy of John of Eltham, 1334, we seem for the first time to meet with the whole foot visible incased in plate, as it continued to be during the rest of the century. In the Warwick collection a pair of sollerets are made each of one piece like sabots. The long curved sollerets with pointed toes of the second half of the fourteenth century are called pouleynes or poulaines, from the souliers à la Polaine, and differ slightly from those known as Cracowes, introduced by Richard II. from Bohemia. There are two fine pointed sollerets at Warwick, one measuring twenty-five inches from toe to heel, or with the spur thirty-two and a half inches. Another beautifully-made one attached to leg armour has the plates scalloped along the edges, and is attributed to Edward, son of Henry VI.

FIG. 16.—*Effigy of the Black Prince on his tomb in Canterbury Cathedral. From the cast in the Crystal Palace, Sydenham.*

The gilt spur was the honorific and distinguishing badge of the knight, and was put on in the ceremony of investiture, and hacked off by the king's cook if the knight was formally degraded. An immense spoil of gilt spurs fell to the victors after the battle of Courtrai. Both the goad and rowel forms were in use throughout the century, and when knights habitually dismounted to fight, they were taken off. Froissart mentions instances where they were fixed in the ground like caltrops. The extravagantly long, rowelled spurs of Henry VI.'s time must have been peculiarly inconvenient.

No great time could well have elapsed before similar defences of plate were found necessary to protect the shoulders and elbows, which were scarcely less vulnerable than the legs. The shoulder-pieces, however, are rarely visible in illustrations and effigies, being much concealed by the surcoat. The earliest arm-defence is in the form of an elbow-guard, and appears in the effigy at Salisbury, date about 1260, consisting of one cupped rosette over another. Elbow-guards are more commonly seen in the second quarter of the fourteenth century, when they consist of cups and discs, or both combined, the latter occasionally spiked. The equestrian figures of the De Valence monument, already mentioned, show in one case gilt rosettes on the shoulders and elbows, and in the other the forearms sheathed in plate. John of Eltham, 1334, has a roundel on the elbow, with articulated plates beneath. In the Ifield effigy the arms are shown by Stothard completely sheathed, and with shoulder and elbow roundels bearing embossed lions' heads. Plain roundels, rosettes, shells, or lion masks were worn on the shoulders, and articulated plates are seen between 1320 and 1350. The singular and exaggerated plates known as ailettes, picturesque objects which rose above the shoulders like epaulettes, were as useless apparently as the shoulder-knots of the present day. They first appear on the scene in the Windsor tournament, 1278, and disappear in the first quarter of the fourteenth century. They are of many shapes and sizes, and are well seen in our illustration (Fig. 10) from Queen Mary's Psalter, in an elegant brass in Weaver's *Funeral Monuments*, as well as in many others, and in several stained-glass windows. Usually they bear the armorial bearings of the owner, though those of Piers Gaveston, 1311, were "frettez de perles."

Mail gloves continued to be worn, though with divided fingers, during

the first part of the fourteenth century. The first effigy to show any change is that of a Whatton, engraved by Stothard, of the time of Edward II. Gloves of leather were sometimes worn between 1311 and 1360, as well as others of whalebone, metal studs and splintwork, iron scales and brass. Plate-armour gauntlets first appear towards the middle of the century with articulated fingers and a broad plate for the back of the hand and wrist; whilst a steel cuff, sometimes articulated, was shortly afterwards added. They are at times spiked, or with gads like knuckle-dusters, as in the case of the Black Prince, and frequently richly jewelled. The jewelled example given from the effigy of Sir Thomas Cawne, of the time of Edward III., is reproduced from Stothard's drawing. The other is from the monument of the Earl of Westmoreland, of the first years of Henry VI. Gauntlets are constantly represented as gilt in MSS. of these periods.

The knight's dress for war now consisted, in addition to any ordinary civilian underclothing, of a more or less complete suit of gambeson or quilted material, sometimes called the haketon, as in Chaucer's *Sir Thopas*:—

> Next his shert an haketon
> And over that an habergeon,
>
> And over that a fin hauberk
> Was all ywrought of Jeweswork,
> Ful strong it was of plate;
>
> And over that his cote-armoure.

The habergeon is the mail in this case, and the hauberk is of plate or splint armour, while the cote-armoure is the surcoat, possibly thickly padded, as in the still-existing surcoat of the Black Prince. In the mutilated effigy at Sandwich the thick quilted gambeson is distinctly seen at the knee and wrist underlying the mail, while the fine hauberk of plate overlies it, and the surcoat is worn over all. The effigy at Ash shows the plate armour, under the surcoat, fashioned in the curious armadillo-like Jazerant or brigandine form, with an upper gambeson under it, as well as the usual second gambeson under the mail. That two separate quilted defences were worn at this time is supported by the De Crell brass, 1325, the D'Abernon brass, 1327, and the Ifield and John of Eltham brasses,

PLATE III.—First suit of Sir Christopher Hatton, Captain of the Guard, and subsequently Lord Chancellor. Reduced fac-simile of No. 15 in the Armourer's Album in the South Kensington Museum.

1334. The colours of these various garments, the edges of which were allowed to show one above the other, were no doubt effectively contrasted, while the edges of the mail, as we have seen, were pinked, vandyked, or scalloped and gilt or finished with brass rings, while the plate-armour finishes most commonly in a fringe-like arrangement of small vertical plates.

The splendid glitter of polished steel, so associated in our minds with the knight in armour, appealed scarcely at all to its wearers in this Transition age. In fact, no decided preference can be discovered even for the defensive qualities of steel, and this constitutes perhaps the most

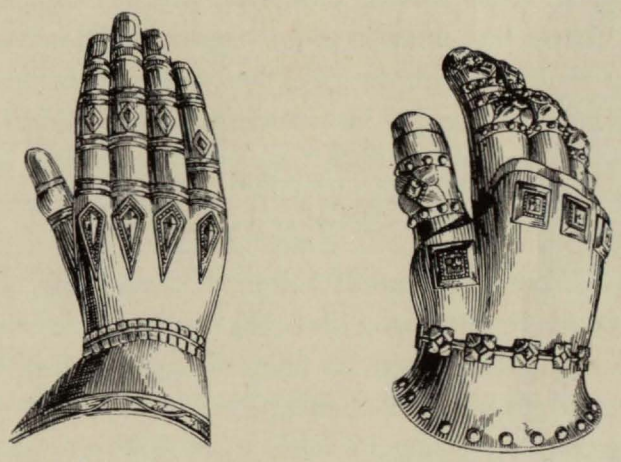


FIG. 17.

1. Gauntlet from the effigy of Ralph Neville, Earl of Westmoreland, in Staindrop Church, Durham. Time of Henry VI.
2. Gauntlet from the effigy of Sir Thomas Cawne, Ightham Church, Kent. Time of Edward III.

marked peculiarity of the age. In the halcyon days of mail, the steel was kept bright and bare, the helm and shield burnished, with nothing to conceal its brilliancy but a coronet and the rich sword-belts which merely enhanced the effect. But in Chaucer's *Sir Thopas* there is no mention of steel forming part of the visible equipment :—

> His jambeux were of cuirbouly,
> His swerdes sheth of ivory,
> His helme of latoun bright.

Over the body armour was a garment, called by Chaucer "the cote-armoure, as white as is the lily floure."

His sheld was all of gold so red,
And thereon was a bores hed
A charbouncle beside.

The helmets were almost hidden by the large crests and the scarlet mantling, and the metal exposed was generally gilt. The trunk armour was concealed under the emblazoned surcoat or pourpoint; and when the thighs and legs are visible below this they are seen to be clothed over the mail by splinted or brigandine armour, showing velvet or satin externally attached by gilt or silver nails; the knee-caps and greaves are often richly moulded and probably cuir-bouilli, as seen in the statues on the front of Exeter Cathedral, and in the paintings from St. Stephen's Chapel they are also shown as gilt. The arms and at times the hands are similarly clothed. The horse-armour was almost entirely concealed by rich caparisons, as in Chaucer's *Knightes Tale*:—

Upon a stede bay, trapped in stele,
Covered with cloth of gold diapered wele.

The figures from the tomb of Edmund Crouchback and Aymer de Valence, engraved by Stothard, show the emblazoned housings of the time of Edward II. The equestrian figures in Queen Mary's Psalter show that the fully-equipped knight of this period, when in full war panoply, was a gorgeous object, blazing in colours and gold, and exhibiting little to recall the stern realities of campaigns and sieges.

A few examples from inventories will best illustrate the colours and the magnificence of the materials used to conceal the steel. Humfrey de Bohun had breastplates covered with "vert velvet"; the Earl of March used "rouge samyt" and "drap d'or," and others had "cendal vermeil, samit vermeil, zatony, veluyau asuré, veluyau vert ouvré de broderie," etc. Piers Gaveston's pair of breastplates were "enclouez et garnie d'argent od 4 cheynes d'argent covery d'un drap de velvet vermail besaunté d'or." Two pairs of plates for the King of France required 3000 crescentic and 3000 round gilt nails to fix the velvet. Exposed pieces of armour were gilt, if not jewelled, pearls and carbuncles being the favourite gems. The baldric, knightly belt, sword-belt, hilt, and scabbard furnished a field for the goldsmith. The magnificence indulged in was often destructive to the wearers, who might have otherwise

escaped in battle. They were "hunted for their hides," or slain for the sake of their spoils.

The weight and fashion of the armour largely determined the tactics in war. The English appear at this time to have reverted to their ancient practice, once more dismounting to engage in battle. At Cressy the horses were sent to the rear, while the army, forming into battalions of archers supported by dismounted men-at-arms, took up its ground and waited the attack. The weight of armour carried by the men-at-arms made any forward movement on their part impossible on foot. By good fortune the 15,000 Genoese cross-bowmen, who might have inflicted severe loss on the English, were unable to use their bows, and the French coming up quite out of hand, charged and retreated as the spirit moved them, without deploying into any battle formation, and so fell into the utmost confusion, with the well-known results. Our archers "shot their arrows with such force and quickness that it seemed as if it snowed," piercing the Genoese and dismounting the horsemen; upon which a body of 1000 Welsh foot with long knives advanced through the men-at-arms, who made way for them, and slew numbers of the French chivalry, so that the battle was "murderous and cruel."

At Poitiers, 1356, the English similarly selected a strong position and awaited the attack dismounted. The French, uncertain how to meet the enemy, commenced by attacking with a mounted division, which was routed by the effect of the English arrows on the horses before getting to close quarters. Their retreat threw the second battalion, which also appears to have been mounted, into a confusion, which quickly developed into a panic. Deeming an advance necessary at this critical moment, the English men-at-arms sent to the rear for their horses and charged, completing the destruction and dispersal of all but the rear battalion. This was dismounted in order to fight on foot, and armed with sword and battle-axe presented a most stubborn front, under the king in person, numerous parties from the broken battalions rallying and dismounting to join in its advance. The English resumed the defensive and remained immovable, the archers plying their arrows with the usual effect. The only English force capable of movement and able to skirmish in the field was the archery, while the men-at-arms kept their ground or advanced very slowly in compact order, until, seeing the day

won, they again mounted to complete the discomfiture and engage in pursuit.

At the battle of Auray, 1364, the French dismounted and fought on foot, when the arrows did little execution among them, and the fight developed into a hand-to-hand engagement with battle-axes, in which the leaders, Sir Oliver de Clisson and Sir John Chandos, greatly distinguished themselves. In all subsequent battles and skirmishes between French and English, until the close of the century, we find that both sides invariably fought on foot, riding up till almost within striking distance, and then dismounting as if by common consent. To advance any distance on foot after dismounting in order to engage was, in fact, almost impossible. The old knightly weapon, the lance, was in consequence almost discarded, and could now only be used effectively if shortened to about five feet, and thus with the shield fell into disuse as a weapon of battle, while the presence of artillery also began to make itself felt.

IV

The Age of Plate-Armour

ANY line dividing what has here been termed a Transition Age from the age of fully-developed plate-armour must of necessity be a purely arbitrary one. Roughly speaking, the age of plate commenced when mail no longer formed the outer defence of any part of the body. The last chink, leaving the mail exposed under the armpit, was a vulnerable opening in the armour called the "vif de l'harnois," or the "defaut de la cuirasse"; and even this now became protected by small plates of steel called gussets. The necessity for such defences was often proved in tournaments: it is related that the lance pierced "au vif de l'harnois" for lack of the crescent or "gouchet." When these last plates were added the knights appeared more invulnerable than Achilles. We find at almost every period, however, that a fair blow delivered "au pas de charge" with a well-steeled lance might penetrate every defence; and that no armour could be made actually proof against downright blows from a two-handed battle-axe wielded by a powerful and expert rider.

One of the most marked characteristics of this age of plate-armour was a growing appreciation of the intrinsic beauty of steel, and a new desire to invest steel armour with graceful lines. The tendency is best exemplified in the fine Gothic armour of the second half of the fifteenth century, of which much is fortunately preserved. This combines most splendidly picturesque outlines with graceful fan or shell-like ridgings, which please the more when examined critically, since every curve and fluting serves some definite and practical end.

The casing of plate-armour, which had been so long elaborating,

having at last become complete, the work of the armourer was directed to further perfecting its parts, and to disencumbering the wearer, with the least risk, of his weighty underlying chain-mail, quilted gambesons, and padded surcoats. This process had not proceeded far when Agincourt was fought, if we may credit the testimony of a French knight, who was present and describes the armour as consisting of the long hauberk of chain-mail reaching below the knee, and very heavy, with the leg-armour beneath, and over this the plate or white armour with the bassinet and camail. One Allbright, noted particularly as "mail-maker," and twelve other armourers, were in the suite of the king on this expedition. The weight of armour would, therefore, have rendered a repetition advisable, on the part of the English, of the tactics of Cressy or Poitiers in this battle, had not the French disconcerted us by dismounting and seating themselves, and refusing to advance. They had also, copying the English, brought a large force of archers and cross-bowmen into the field, and, in addition, kept bodies of men-at-arms in the saddle on either wing, to make flank attacks when opportunities occurred. The English having in vain endeavoured to provoke the enemy to advance by sending out archers to fire a house and barn, posted an ambuscade and moved forward, the archers in front as usual and the men-at-arms behind. The archers thus gave up the shelter of their pointed stakes, and the men-at-arms suffered the fatigue of an advance in armour of an almost insupportable weight to men on foot. They advanced, however, with repeated huzzas, but, as the Chroniclers inform us, "often stopping to take breath." The French, stooping their visors under the amazing hail of arrows that began to fall upon them, gave way a few paces, and the English, coming close up, pressed them soon afterwards so hardly, "that only the front ranks with shortened lances could raise their hands." Our archers, flinging away their bows, fought lustily with swords, hatchets, mallets, or bill-hooks, supported manfully by King Henry and his men-at-arms. Pressing on and slaying all before them, they routed the van and reached the main body, which was also quickly destroyed. The rear battalion of the French, which had remained mounted, then fled panic-struck, and the battle terminated in some desultory charges made by a few parties of nobles and their men-at-arms, which were easily repulsed; 10,000 French perished, all but 1600 being

PLATE IV.—Grand-guard of the suit of George, Earl of Cumberland, in the possession of Lord Hothfield. This is a part of the 20th suit in the Armourer's Album in the South Kensington Museum. From a photograph communicated by Baron de Cosson.

gentlemen! many in the massacre of prisoners consequent on a false alarm. The battle of Verneuil, so fatal nine years later to the Scots, who lost the Earls of Douglas, Murray, and Buchan, with the flower of their army, was fought on precisely the same lines; the main French battalion with their Scottish allies on foot being first shaken by the storm of arrows, and then destroyed at close quarters by the advance of the archers with the usual "loud shouts," supported by the Duke of Bedford and the men-at-arms. These defeats caused the French to again waver in their plan for meeting the enemy, for at the battle of Herrings, and the skirmish at Beauvais in 1430, they made their attack mounted, the English archers receiving the first charge behind their palisade of pointed stakes, and defeating the enemy by the clouds of arrows taking their usual deadly effect on the horses. These stakes, six feet long and sharpened at both ends, formed an important item of the archers' equipment, and were planted in the ground by the front rank, sloping towards the enemy, the next rank fixing theirs intermediately to affright the enemy's horse. Throughout the Anglo-Burgundian alliance, the Burgundians of all arms were often compelled "under pain of death" to fight dismounted, the Picards especially adopting the tactics and perhaps equalling the English. A little later, as at the battle of Montlhery, 1465, both Burgundian and English archers are armed with the formidable long-handled leaden mauls or mallets, which the armour of the men-at-arms was incapable of resisting. In the account of one of these battles we learn incidentally that the duty of the varlets who invariably formed part of the retinue of each man-at-arms was to succour and refresh their masters during the heat of the engagement, and to carry the prisoners they took to the rear.

As the various hauberks of mail, brigandines, gambesons, and other defences became more or less obsolete and discarded by men-at-arms armed cap-à-pied, they were relegated to a lighter-armed cavalry and the infantry; but so long as a suit of mail continued to be worn by the man-at-arms as a defence underlying the armour of plate, flexibility in the latter was of paramount importance.

Regarding the armour of Henry V. as the earliest complete cap-à-pied plate-armour, we find it thus composed. The breast and back plates are each of one piece, the gorget is usually in one, though a standard of mail

sometimes replaces it; the limb-defences are of few pieces and rigid, except at the joints, which are guarded by caps or roundels; while the armour of the fingers, toes, and upper surfaces of the shoulders is articulated or protected by narrow laminar plates. The introduction of the gussets, and more particularly of the horizontal bands of plate forming a short petticoat below the waist, materially altered the appearance of the armour of the fifteenth century from that of the fourteenth. The plates of the petticoat, called the tassets, are first seen in the brass of Nicholas Hawberk, at Cobham, who died in 1406, and they gradually increase in number till about 1420. At Agincourt, where the fighting was on foot, the visored bassinet would have been worn by the king and his men-at-arms, and not the great helm. The example of the latter suspended in the chantry of Henry V. in Westminster Abbey, though a real helm, was only purchased from Thomas Daunt, for 33s. 4d., according to Rymer, with the crest, for the funeral. The bassinet was probably plumed with ostrich feathers, which were taking the place of crests, and was encircled by a coronet, damaged in the melée by a blow from the Duke of Alençon, which among its jewels comprised the ruby of the Black Prince, now in the regalia. The diamond-hilted sword was not taken into the fray, unfortunately, as it happened, and fell a prey to the baggage-looters. The king is generally represented wearing a tabard of arms on this occasion, a garment differing from the surcoat in being loose and cut like the modern herald's tabard, emblazoned before and behind and on the broad flaps which do duty for sleeves. The horses, borrowing the custom of Lombardy, wore a heavy chamfron or headpiece of plate, of which a specimen still exists in Warwick Castle, and an articulated crinet or neck-defence of overlapping plates, put together on the same plan as the tassets, and probably some mail defences concealed by the emblazoned caparisons. The ostentatious magnificence which had hitherto covered the body armour of the

FIG. 18.—*Helm from the tomb of Henry V. in Westminster Abbey, date* 1400-1420. *From a photograph lent by Baron de Cosson.*

knight with silks and satins, velvet and bullion and gems, especially among the Burgundian French, was now in process of being transferred to the horse. The housings are described as of silks and satins of every colour, or velvet crimson and blue, or cloth of gold, and sweeping the ground, besprinkled with escutcheons of arms, and loaded with silversmith's work, or raised work of solid gold. We read of trappings of white silver fringed with cloth of gold, and of cloth of gold interwrought with solid silver ; and it appears that no materials were too rich to deck out the favourite destrier or war-horse. It is unlikely that the English were at this time behind the French in display, for so early as 1409, of the six pages of Sir John de Cornewall, two rode horses covered with ermine, and four horses with cloth of gold ; and in 1414 the English embassy carried themselves so magnificently that the French, and especially the Parisians, were astonished. Splendid, however, as were the housings, the headpieces of the horses eclipsed them. The horse of the Count de Foix at the entry into Bayonne had a headpiece of steel enriched with gold work and precious stones to the value of 15,000 crowns. The Count de St. Pol's horse's headpiece on leaving Rouen was estimated to be worth 30,000 francs, while those of the Dukes of Burgundy and Cleves on the entry of Louis XI. into Paris were still more magnificent. That of the king, however, was on this occasion merely of fine gold with ostrich plumes of various colours. As with the armour in the fourteenth century, the rich trappings of the horse naturally led at times to the pursuit and capture of the owner. It is difficult to believe, in days of such magnificence, that the pay of the Duke of York under Henry V. was only 13s. 4d. per day, an earl received but 6s. 8d., a baron or banneret 4s., a knight 2s., an esquire 1s., and an archer 6d.

Though Henry V. wore royal armour at Agincourt it does not appear that he followed the prudent custom, first noticed in the battle of Viterbo, 1243, of dressing several knights in an identical manner with himself. At Viterbo, on a knight dressed like the emperor being slain, the result was a panic, and the emperor himself had to press with his trumpets into the thickest of the fight to restore confidence. At Poitiers, though nineteen knights were dressed like the king, it did not preserve him from capture. In England, however, the king was saved on many a field by this precaution, as at the battle of Shrewsbury, when the earl,

Sir Walter Blount and two others in royal armour were slain. The passages in Shakespeare will be present to the mind of all :—

> Another king ! they grow like hydras' heads ;
> I am the Douglas fatal to all those
> That wear those colours on them. Who art thou,
> That counterfeit'st the person of a king ?

and again, when Richard exclaims at Bosworth—

> I think there be six Richmonds in the field :
> Five have I slain to-day instead of him.

The appreciation of steel, called by the Chroniclers plain or white armour, for its own sake, had not progressed very far by the time of Henry V.'s invasion of France, but the more lavish splendours were at least reserved for gala occasions. The next modifications were evidently devised to increase the flexibility of the armour, and can be traced with greater precision in England than elsewhere, owing to the fortunate preservation in our churches of a matchless series of military monumental brasses. These clearly indicate that the tendency during the first half of the fifteenth century was to increase the number of joints or articulations in every part of the armour. By the close of the reign of Henry V. things had proceeded so far in this direction that in some cases the greater part of the limb-defences are made up of laminated plates.

The next important change in the appearance of the man-at-arms occurs in the early years of Henry VI., and is due to a striking development of the fan-shaped elbow-guards, first seen in a rudimentary form in 1425, as well as to an addition of short hinged plates called tuilles to the bottom of the hoop-like skirt of tassets which lay closer to the body. By 1435 these tuilles are ridged or fluted perpendicularly and scalloped along the lower edge, and shortly after they take the more developed, elongate and elegant forms familiar in Gothic armour. By 1440 we have the addition of great shoulder and elbow plates attached by nuts and screws, and concealing the articulated shoulder-pieces or epaulettes. These extra plates usually differ in size, being often very much larger on the left side, which received the blows, and thus conferring a quite peculiar character on the plate-armour of the middle of the

century. A scarcely less important modification, introduced about 1445, is the articulation of the breastplate in two pieces, the lower overlapping and sliding over the upper, and made flexible by straps.

The Daundelyon brass of this date, at Margate, exhibits a left elbow-piece of immense size, and pointed and ridged tuilles below the tassets, which are almost repeated again in form by the plates below the knee-caps. John Gaynesford's brass at Crowhurst, 1450, presents strong reinforcing shoulder-guards over articulated plates, and repeats the same long peaked and ridged plates below the knee-cap. We continue for the next few years to find the limb-defences constantly varying in the number and form of the pieces composing them, according to the dictates of conflicting requirements, namely flexibility and impenetrability. The frequent absence of tuilles at this time is held to imply that they were not used in combats on foot, then very popular. It is obvious that when the immensely long and pointed solleret came in with the equally preposterous spur, the fashion of fighting on foot was on the wane, and the men-at-arms generally fought mounted during the Wars of the Roses.

We see by manuscript illustrations that a few suits were still gilded, and we find Jack Cade after his victory in 1450 flourishing about in a suit of gilt armour, the spoils of Sir Humphrey Stafford. But the ever-growing appreciation of the intrinsic beauty of the steel panoply and its fine military qualities is now distinctly felt, and the armourer sought more and more to invest his work with beauty of form. All is still entirely dictated by fitness to its purpose, and the requirements of jousts and war; and the decorative and subtle shell-like ridgings and flutings are really present more to deflect the weapon's point than as ornament, while the engrailing, dentelling, scalloping and punching of the margins of the plates unmistakably indicate that the decorative spirit is applied to embellishing and not to concealing the steel. The superb gilded metal effigy (Fig. 19) of Richard Beauchamp, Earl of Warwick, presents a faithful model of the most beautiful type of Gothic armour known. Every fastening, strap, buckle or hinge is represented with scrupulous fidelity, not only on the front, but on the unseen back. Baron de Cosson, who has minutely described it, expresses the belief that it is a faithful reproduction of a suit actually worn by the Earl, and

therefore earlier than 1439; although the effigy itself was only produced in 1454, and the armour agrees with that worn in England at the latter date. He regards the suit represented as the work of the celebrated contemporary Milanese armourers, the Missaglias. Italian armour is shown by sculptures, medals and paintings to have been many years in advance of English, and the two known contemporary suits by Tomaso di Missaglia greatly resemble it. The Earl of Warwick knew Milan in his youth, when he had tilted successfully at Verona; and it was a practice among the great to obtain armour there, dating from so far back as 1398, when the Earl of Derby had his armour brought over by Milanese armourers; the Baron's view presents therefore no improbabilities. Wherever made, the Earl of Warwick's suit appears to have solved the armourer's problem, being at once light, flexible, yet impenetrable. Indeed, in its beautiful proportions and admirably perfect adaptation to all requirements, it appears more like a work of nature than of art. The contours of the pieces and their graceful fan-like flutings, to give strength and deflect opponents' blows, are artistically splendid. The great shoulder-guards and elbow-pieces, the cuissarts and winged knee-caps, the tuilles, the jointed breast and back plates, the upright neck-guard, not hitherto seen, are all fashioned with consummate skill. In such a suit the preux and gallant knight for three days held his tournament victoriously against all comers, presenting each of his discomfited adversaries with new war-chargers, feasting the whole company, and finally "returning to Calais with great worship." The two cuts (Figs. 20 and 21), illustrating scenes from his life, are taken from the exquisitely drawn illustrations to the contemporary Beauchamp manuscript, now in the British Museum. The incidental testimonies to the excellence of Italian armour of the middle of the fifteenth century are abundant. A stalwart Burgundian champion tried in vain during a tournament in 1446 to penetrate or find a crevice in the armour of the Duke of Milan's chamberlain, whom it was impossible to wound; and in 1449 the suit of another knight in the service of the same Duke was said to be steeped in some magic liquid, as so light a harness could not possibly have otherwise withstood the heavy blows it received.

No word ever escapes the chronicler in praise of English armour; but the splendid model of the Earl of Warwick's suit is by William Austin,

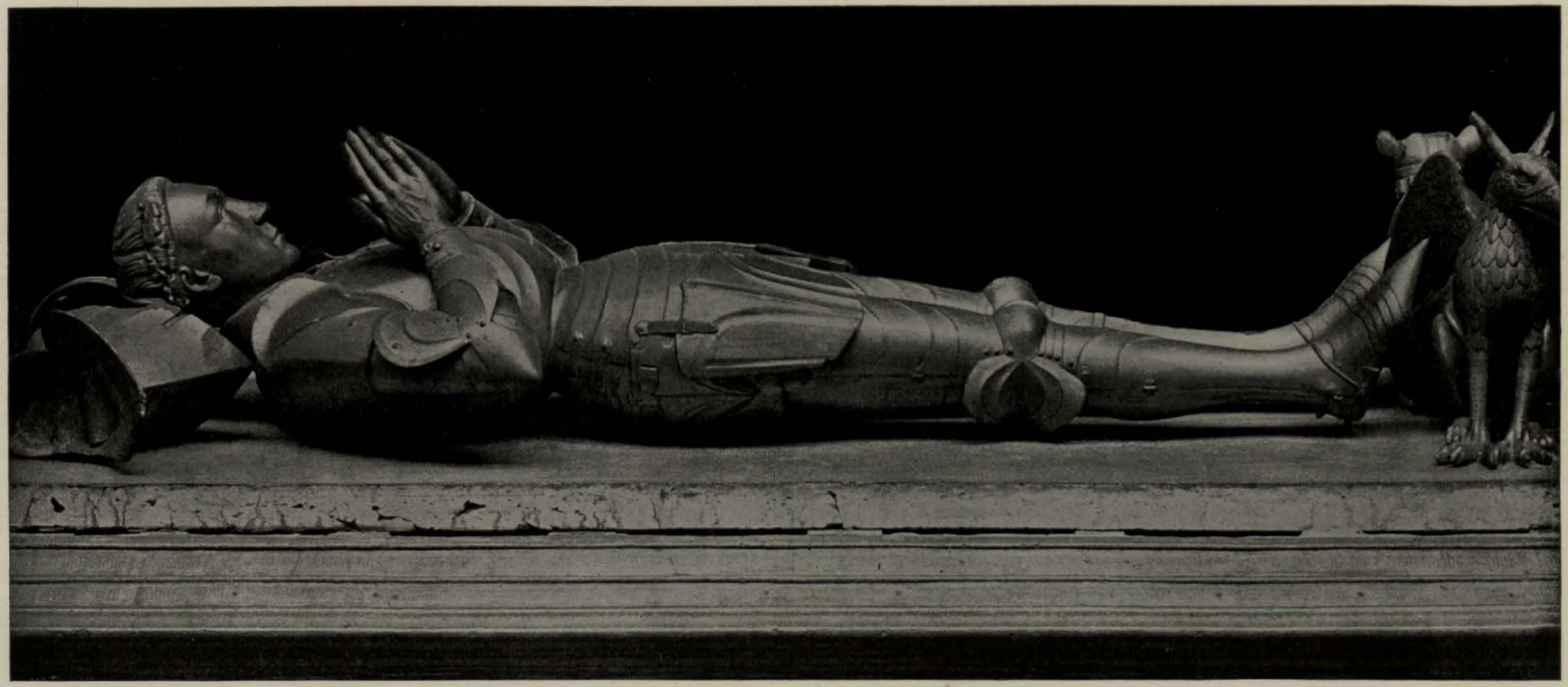


FIG. 19.—*Effigy of Richard Beauchamp, Earl of Warwick, on his tomb in St. Mary's Church, Warwick. About* 1454.
From the cast in the Crystal Palace, Sydenham.

founder, and Thomas Stevyns, coppersmith, both of London, with the gilding, chasing, and polishing by Bartholomew Lambespring, Dutchman and goldsmith of London. The will directs that the effigy shall be made according to patterns, directions obviously most scrupulously carried out.

In contemplating the lithe figure we may well believe that the steely quality and workmanship of such a suit would confer immunity

FIG. 20.

The Earl of Warwick slays a "mighty Duke" who has challenged him to combat for his lady's sake, and wins the favour of the Empress, to whom he makes a present of pearls and precious stones. The costume is about fifteen or twenty years later than the death of Earl Richard, and shows the extra pieces worn in the tilt-yard, 1450-60.

on the wearer ; and that the relative elasticity and lightness of a perfectly-fitting suit might confer such superiority on an active and sinewy champion engaging with men swathed like mummies beneath their armour in thick gambeson or mail, as to enable him to emerge from his deeds of arms as triumphantly as the heroes of romance. Nothing was worn beneath but the fustian doublet, well padded and lined with satin, with the small lozenge-shaped gussets of mail under the limb-joints and the short petticoat of mail tied round the waist. It is also unlikely that such

armour was concealed under any garment, and we may observe that while some princes and nobles are still wearing brigandines of velvet and cloth of gold in pageants, many more are in "plain armour," presenting, except when standing collars of mail were worn, a uniform surface of smooth polished steel.

The Missaglia suit remained the type with little modification for several years, almost to the close of the Gothic period. The Quatremayne brass in Thame Church, of the year 1460, presents a magnificent example of it with singularly exaggerated elbow-guards. During the next few years the limb-pieces and gorget become more articulated and flexible, and the breast and back plates are formed of as many as three or four overlapping articulated plates, cut chevron-wise, and notched and indented in an interesting manner. The gauntlets and sollerets are also of excellent workmanship. There are a number of peculiarly fine examples in the Museum of Artillery in the Rotunda at Woolwich, from the Isle of Rhodes, which exhibit the graceful outlines and ornament of later fifteenth-century Gothic armour in perfection, and also present early and interesting examples of engraving on armour. Lord Zouche has also some remarkable suits, said to be from the Church of Irene at Constantinople, in his collection at Parham. Sir Noel Paton's fine collection also comprises several Gothic suits, and there are some in the Tower. None, however, are connected historically with English wearers, and the destruction of Gothic armour in this country appears to have been unusually complete. The illustrations from the *Life of the Earl of Warwick*, an English MS. of the second half of the fifteenth century (Figs. 20 and 21); and the scene (Fig. 25) from the late fifteenth-century MS. of Froissart, which belonged to Philip de Commines, both now in the British Museum, give excellent ideas of the armour of this period in actual use, while the brasses supply exact figures of the details.

Turning now to head-defences, the great crested helm, still represented as pillowing the head in effigies, had long since been relegated to the joust and tilt, while the bassinet with a visor, already seen in the Transition period, remained the fighting helmet till about the middle of the century. The visor, however, was not unfrequently struck or wrenched off in tourneys, and the neck pierced by the lance. Some hardy warriors, indeed, like Sir John Chandos and the Earl of Warwick,

dispensed with it and went into the fray with faces bare, but this was

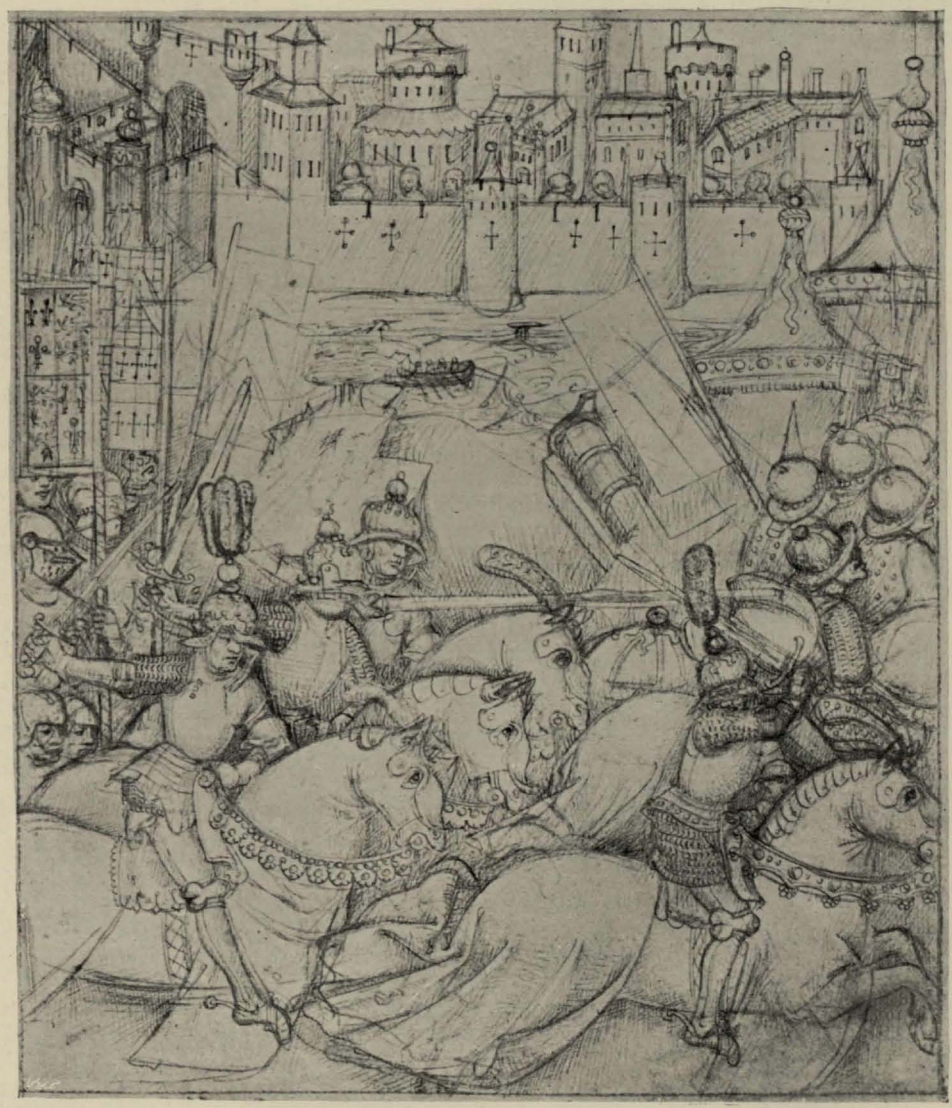


FIG. 21.

The Duke of Gloucester and Earls of Warwick and Stafford chase the Duke of Burgundy from the walls of Calais. They wear loose sleeves and skirts of mail, and the round broad-brimmed helmet very fashionable for a time among the higher French nobility. The balls and tufts are probably Venice gold, with which the helmet was perhaps also laced, over some rich material. This and Fig. 20 are from the Beauchamp MS. in the British Museum, an exquisite production by an English hand.

exceptional, and the pig-faced and beaked visored bassinets occur in all delineations of combats of the first half of the century.

The bassinet began to be superseded towards the middle of the fifteenth century by the sallad, which remained in fashion almost to its close. Its merits were, the free supply of air it afforded, and the readiness with which the face could be concealed and protected. It was the headpiece of the Gothic armour, such as that of the Warwick effigy, though monuments of this date almost always leave the head bare. The origin of the sallad, whether German or Italian, is unknown, but the term occurs in Chaucer. In its simplest form it was low-crowned, projecting behind, and strapped under the chin, something like a "sou'wester" or the heraldic chapeau, and in this form it was worn by archers and billmen. Another kind had a higher crown, with two slits in front as an ocularium, and could be pulled over the brows till this came level with the eyes (Fig. 22). A hinged nose-piece was also sometimes present, to be let down in time of danger. It was also made more completely protective by a chin-piece called the bavier, strapped round the neck or fastened to the breastplate for tilting; while a lighter bavier was in two pieces, of which the upper was hinged at the side and could be raised for speaking. It was frequently furnished with a visor to let down. The tail-piece was occasionally so prolonged that sallads measure as much as eighteen inches from back to front. It occurs both smooth-topped and combed, and with a slot for plumes approaches nearer to classic models than any other form of mediæval helmet. This picturesque headpiece is the one so frequently represented by Albert Dürer, and was favoured for a longer time in Germany than elsewhere, many of the Germans in the picture of the meeting of Maximilian and Henry VIII. appearing in it, while all the English wear the later close helmet or armet. The form represented has the addition of articulated pieces behind and a double visor moving on pivots at the sides, which make it a near approach to a closed helmet.

The sallad was the principal helmet in use throughout the Wars of the Roses, and is constantly represented in manuscripts of that period. But one solitary example has been preserved in England from the time of those destructive wars, in which its first wearer may have taken part. It hangs in St. Mary's Hall, Coventry, and owes its preservation to its use as a stage property in the Godiva processions. There are specimens, however, in all the important collections in England and abroad.

PLATE V.—Grand-guard, used for tilting, belonging to the suit of Robert Dudley, Earl of Leicester, with the gilding restored. In the Tower of London.

The bassinet was sometimes richly decorated, covered with velvet, plumed, crested, and of considerable value, Sir John de Cornwall wagering his helmet in 1423, which he offered to prove to be worth 500 nobles. The pretty custom of garlanding them with may, marguerites, or other flowers specially favoured by a queen or princess, or with chaplets of pearls and other gems, seen in the early part of the century, lasted until after the introduction of the sallad, which provided a better field for such display. A sallad belonging to the Duke of Burgundy, decorated with rubies and diamonds to the estimated value of 100,000 crowns, figured in the entry of Louis XI. into Paris in 1443. In the expenses of Henry VII. precious stones and pearls are bought from the Lombards to the value of £3800 for embellishing sallads and other helmets, and in France even the sallads of the mounted archers are continually mentioned as garnished with silver.

FIG. 22.

1. Sallad in St. Mary's Hall, Coventry.
2. Helm of Sir Giles Capel, date 1510-1525. Formerly in Rayne Church, Essex. Now in the possession of Baron de Cosson.

The sallad was a relatively dangerous headpiece in tourneys on foot, and a large-visored bassinet is often mentioned as being retained in use for this purpose down to the sixteenth century. The Baron de Cosson has identified this form, seen to have been fixed to the breast by two staples and a double buckle behind, and himself possesses a magnificent example, which once hung over the tombs of the Capels in Rayne Church. Sir Giles Capel was one of the knights who with Henry VIII. challenged all comers for thirty days on the Field of the Cloth of Gold. The visor in this example is very massive, the holes so small that no point could possibly enter, and the helm being fixed the head moved freely

inside. A second and possibly earlier example has the visor thrown into horizontal ridges and a small bavier. The visor is hinged at the sides, and the sight and breathing holes are short slots, parallel to and protected by the ridges. It hangs over the tomb of John Beaufort, Duke of Somerset, in Wimborne Minster, who died in 1444, but it is of later date; and another belonging to the suit of Henry VIII. in the Tower, made for fighting on foot, is not dissimilar. Baron de Cosson calls attention to the fact that this form, called a bassinet, is shown in the miniature of the manuscript entitled, "How a man shalle be armyd at his ese when he schal fighte on foote."

FIG. 23.—*English tournament helm over the tomb of John Beaufort, Duke of Somerset, in Wimborne Minster. Weight* 14¼ *lbs. Date* 1480-1520. *From a photograph lent by Baron de Cosson.*

Another very interesting and thoroughly English form of helm, intended, according to De Cosson, for the tilt with lances, is preserved in a specimen in Broadwater Church, another in Willington Church over Sir John Gostwick's tomb, and a third in Cobham Church, the helm of Sir Thomas Brooke, who died 1522. These all present considerable differences of detail. A not dissimilar helm of slightly later date with a barred visor, or the bars riveted to the helm, affording plenty of breathing space, was used for the tourney with sword or battle-axe, and has become the Royal and the nobles' helmet of heraldry.

A form of helm used for tilting with the lance and also frequently depicted in heraldry, is the great helm of the time of Henry VII. and Henry VIII., of immense weight and strength, resting on the shoulders, and securely fixed to the back and breast. It was relatively flat on the crown, produced in front into a kind of blunt beak, giving a bird-like aspect with no distinct neck. The ocularium, or slit for vision, is large and in the crown, and can only be used by bending the body forward; the head being raised before the moment of impact to avoid the danger of the lance penetrating. This helm is well represented in the tournament roll

of Henry VIII. in Heralds' College, and from its massive strength and the fact that by no possibility could a combatant be accidentally unhelmed, afforded absolute protection to the head. Le Heaulme du Roy is represented in this roll as silvered, with a crown-like border round the neck of pearls and gems set in gold. There is a magnificent specimen in the Museum of Artillery at Woolwich, one in Westminster Abbey, two in St. George's Chapel, one in Petworth Church, and one at Parham. This form of helm was the most massive and secure, and the last that remained in use. A very early delineation of a helmet of this type is seen in the late fourteenth-century French MS. (Burney, 257) in the British Museum. Some exceedingly interesting delineations of the same kind of tilting helm in actual use are to be seen in Philip de Commines' Froissart, Harl. MS., 4379-80 (Fig. 25). It is there represented plain and fluted, and with various crests and mantling, one of the most singular, and a favourite, being a close copy of the lady's head-dress of the period, with the lady's long gauze veil reaching below the waist. This manuscript is of late fifteenth-century date, and very remarkable for the apparently faithful representations of the armour worn by the English and French at that time. In one group of soldiery alone, in the second volume, page 84, the helm of the early fourteenth century, the beaked bassinet of the early fifteenth, and various forms of visored and unvisored sallads are assembled together.

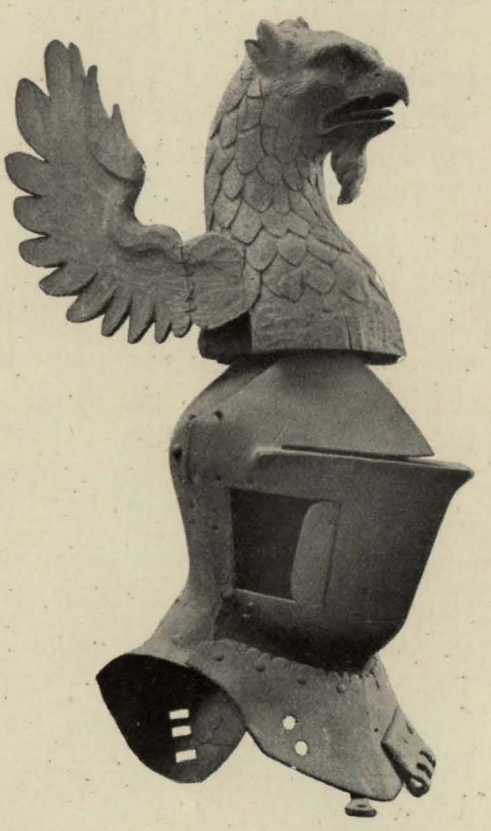


FIG. 24.—*Helm of Sir John Gostwick, died* 1541.

Believed to have been worn at the Field of the Cloth of Gold, 1520, and now hanging over his tomb in Willington Church, Bedfordshire. From a photograph by the Rev. Augustus Orlebau, Vicar.

All these forms of helm were more or less contemporary with the sallad, which gave place in turn to the armet or closed helmet, first heard of in 1443. Like, perhaps, the sallad, the armet was invented in Italy, and did not reach England or even Germany till about 1500. In France, however, a page of the Count de St. Pol bore a richly-worked armet on the entry into Rouen of Charles VII.; and the royal armet of Louis XI., crowned and richly adorned with fleurs-de-lis, was carried before him on his entry into Paris in 1461. It is also mentioned in 1472, in an edict of the Duke of Burgundy.

The fundamental difference between it and all helms and helmets that had preceded it is, that while others had either fitted the top of the head, as a cap does, or were put right over it, the armet closed round the head by means of hinges, following the contour of the chin and neck. Its advantages were neatness, lightness, and general handiness, and it conveyed the weight by the gorget directly on to the shoulders. Its use was exclusively for mounted combatants, though the great helm continued in use for jousts and tilts during the time of Henry VIII. It does not appear in English costume much before this reign, but in all the pictures of the triumphs and battle-pieces of Henry VIII. at Hampton Court, the English men-at-arms invariably wear it, and it is abundantly represented in works of art during the remainder of the Tudor period.

An early armet, identified by Baron de Cosson as Italian, with a double bavier riveted together, but without a visor, hangs over the tomb of Sir George Brooke, eighth Lord Cobham, K.G. (Fig. 26), and dates from 1480 to 1500. Baron de Cosson describes it as having a reinforcing piece on the forehead, hinged cheek-pieces joined down the middle of the chin, and of peculiarly delicate and beautiful outline. It originally had a camail hanging to a leather strap. The wooden Saracen's head may date from the funeral of this Lord Cobham in 1558, "but was certainly never worn on any helmet." Its owner served under Norfolk in Ireland, in 1520, and was subsequently Governor of Calais.

English armets dating from about 1500 are not uncommon, but, as frequently observed, "they want that perfection and delicacy to be found in fine Italian or German work." The earlier open down the front, and the later at the side. They are generally combed, the ridge or comb

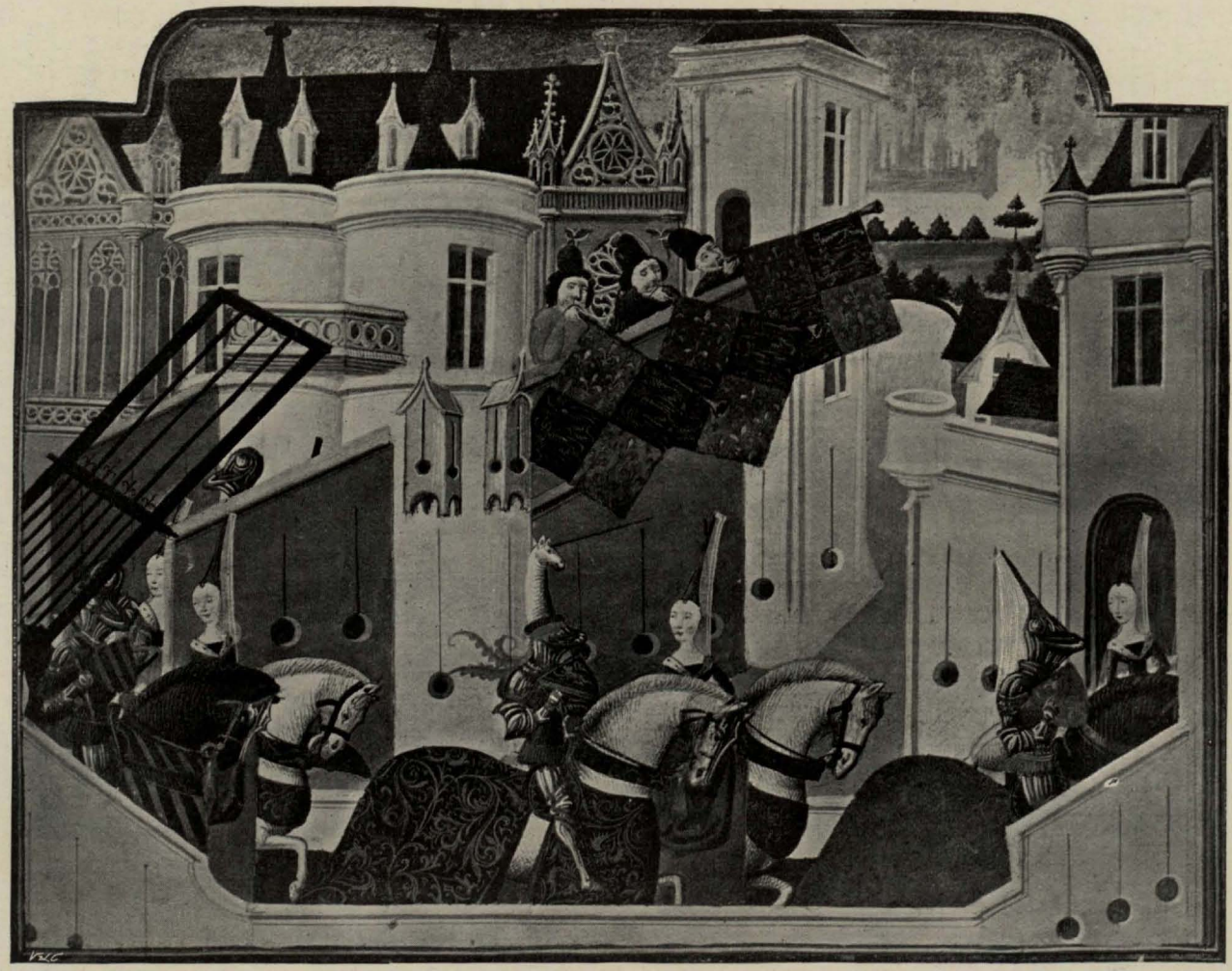


FIG. 25.—*The entry of Queen Isabel into Paris in* 1390.

The knights wear the great tilting helms, and the foremost has a copy of the ladies' head-dress for crest, from which depends a fine lawn veil. The housings are embroidered with gold. From the Philip de Commines copy of Froissart, Harl. MS. 4379, vol. 1, fol. 99, in the British Museum, late fifteenth century.

running from the forehead to the back of the neck, and being beaten or raised out of the metal in the most able way. There is generally, but not always, a reinforcing piece over the forehead. The visor is of one piece, and works on a pivot, but in a few of the early specimens the pin and hinge arrangement of the older Italian examples is preserved, rendering it removable. The slit for vision is generally made in the body of the visor, but is sometimes obtained by cutting out a piece of its upper edge. It is beaked, thrown into few or several ridges, with the slits or holes for breathing principally on the right side. The English armet was rarely furnished with a bavier or movable chin-piece, and the fixed one, called a mentonière, was small. Baron de Cosson obtained one from Rayne Church in Essex, when it was pulled down, and Meyrick procured a similar one from Fulham Church, and Mr. Seymour Lucas, A.R.A., has two very fine specimens, now exhibited at South Kensington, while specimens are to be met with in most great collections. The not inelegant fluted Maximilian armets of the same date are, however, far more frequent. Like the later English armets, they have no baviers. Between 1510 and 1525, a hollow rim was introduced round the base of the helmet, fitting closely into a corresponding ridge round the upper edge of the gorget. This manifest improvement was considered by Meyrick to constitute the

FIG. 26.—*Armet of Sir George Brooke, K.G., 8th Lord Cobham. From his tomb in Cobham Church, Kent.* 1480-1500.

FIG. 27.—*English armet from the collection of Seymour Lucas, A.R.A. Date about* 1500. *From a photograph by Baron de Cosson.*

Burgonet. Between 1520 and 1540 the visor was formed of two parts, the upper of which closed inside the lower, and was capable of being raised without unfixing the latter. It remained in this form until the closed helmet fell into disuse in the seventeenth century. The armet frequently comprised, especially in the later examples, a fixed gorget, generally of two or more articulated plates. A number of these are included in the sixteenth and seventeenth century suits illustrated in the succeeding pages, one of the most singular being the helmet of the mounted suit of Henry VIII., made for the king by Conrad Seusenhofer of Innsbrück in 1511-14. It consists of six pieces fitting one within another without hinge or rivet, and seems originally to have had one of the curious discs at the back seen in Italian fifteenth-century armets and contemporary illustrations.

Towards the beginning of the sixteenth century knightly armour underwent some profound modifications. The exaggerated elbow-guards and shoulder-pieces were reduced, the tuilles, the laminated corselets with their handsome flutings and indented margins, and the pointed sollerets were either modified or seen no more ; and with them disappear much of the angulated, defensive mannerism, and the grace peculiar to the armour of the third quarter of the fifteenth century. That which followed appears smoother, rounder, and heavier, less mobile, and less apt for real campaigning. The modifications tending to this result may have been in a large degree due to the personal tastes of the three great monarchs of Europe. Maximilian and Henry VIII. preferred at heart the pomp and pageantry to the realities of war ; while the classic bias of Francis I. banished all Gothic feeling so far as his personal influence extended. The short-waisted, podgy, globular breastplate, the stolid limb-pieces, rounded knee-caps and strikingly splay-footed sollerets, appear as if invented to altogether banish the very idea of agility, if not of movement ; and contrast in the strongest manner with the lithe and supple-looking armour of the Beauchamp effigy. The Tower collection, so relatively poor in Gothic armour, is fortunately extremely rich in that of the period of Henry VIII., containing four or five suits actually made for his personal use. One of the finest of these, and an admirably perfect suit, is shown in our illustration (Fig. 28). Though without any decoration or marks, it was undoubtedly made expressly for the king,

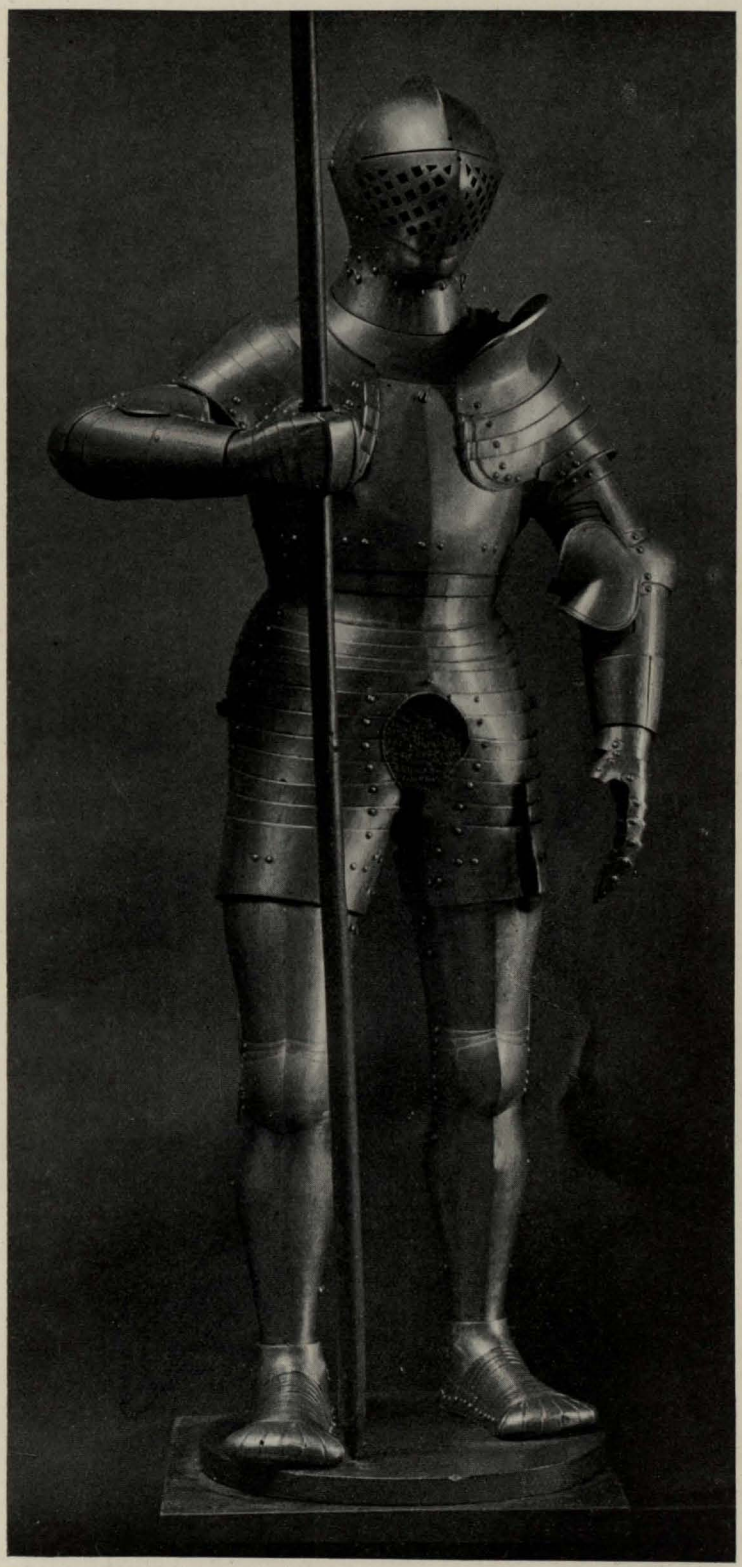


FIG. 28.—*Complete suit for fighting on foot, made for Henry VIII. In the Tower of London.*

and is a chef-d'œuvre of the armourer's craft, being formed, according to Lord Dillon, of no less than 235 separate pieces, which are used about one half below and the rest above the waist. The principal pieces are fitted with a hollow groove along the inferior margin, and overlap others provided with a corresponding ridge: so that the whole suit thus interlocks, and the plates cannot be separated or the armour taken apart except by removing the helmet and beginning at the neck-pieces. To the left shoulder-piece or pauldron one of the upright neck-guards is still fixed by rivets. The breastplate is globose, and has a central ridge called the tapul. The arms are sheathed in rigid plates, separated by a series of narrow laminar plates, by which power of movement is obtained. The elbows are guarded by not inelegant caps, and the gauntlets are miton-fashioned, of eleven small plates, and very flexible. The leg-armour is in large pieces ridged down the centre, similarly to the breastplate, except above and below the knee-cap, and at the ankle, where laminar plates give the necessary play. The sollerets being made, like the gauntlets, each of thirteen pieces, are also extremely flexible, and reproduce in an exaggerated way the great broad toes of the civil dress. Like the helm, already noticed, the suit is intended for combats on foot and in the lists, which were greatly in fashion. No mail gussets were needed, for there were no crevices between the plates, and the wearer inside his armour was as well defended as a lobster in its shell; but this security, as with all armour-plate, was purchased, notwithstanding the perfection of manufacture, at the expense of unwieldiness and fatigue, for the suit weighs over 92 lbs. There are three other suits which belonged to Henry VIII., besides the magnificent equestrian one next figured. The second dismounted one was also intended for combats on foot, and is known as a tonlet suit from the long, laminated skirt of horizontal plates reaching to the knee, and sliding over each other. It is decorated with some engraved bands or borders, while the fine headpiece to it is Italian, bearing the marks of the celebrated Missaglias of Milan. We meet at this time with the sliding rivets, a new mode of attachment for the plates, which enabled them to play freely over each other without parting company. The overlapping tassets of most of the close-fitting skirts are made in this fashion, to

which the term Almayne rivets, so frequently met with in inventories, is believed to apply. Some of the suits are provided with a locking gauntlet, to prevent the sword from being struck out of the wearer's hand, the so-called forbidden gauntlet, though its prevalence in collections negatives the idea that its use was disallowed. In one mounted suit the insteps are protected by the great ungainly stirrups necessitated by the broad-toed sollerets, and therefore only covered with mail. This suit is enriched with a picturesque banded ornament, partly gilt.

The superbly-mounted suit in our illustration (Fig. 29), one of the finest of its date in existence, was constructed to the order of Maximilian expressly for Henry VIII., by Conrad Seusenhofer, one of the most celebrated armourers of Innsbrück, whose mark it bears on the helmet. It was sent as a gift in 1514, and was originally silvered all over, and finely engraved in every part with the legend of St. George and the badges of Henry VIII. and Katharine of Arragon. The Tudor cognisances are the rose, portcullis and red dragon; and Katharine's the pomegranate and sheaf of arrows, with finely-scrolled arabesque work between. This ornament seems to be engraved and not etched, as in later times. The most remarkable feature is the steel skirt called base, of great rarity, and made in imitation of the folds of the cloth bases so much in vogue at this time. These skirts were used for fighting on foot, and there is provision for fixing an additional piece to complete it in front, the absence of which alone permitted the wearer to sit on horseback, though the difficulty of getting into the saddle must have been considerable. The skirt is edged with a finely-modelled border of brass in high relief, with the initials H. and K. united by true-lover's knots. The suit is complete in every respect except the gauntlets, and is mentioned in the Greenwich inventory of 1547, published in the fifty-first volume of *Archæologia* by Lord Dillon. It is there described as "a harnesse given unto the King's Maiestie by Th^{e} Empero^{r} Maximilian w^{t} a Base of stele and goldesmythes worke." The brass border to the base thus appears to have been regarded as silver and gilt goldsmiths' work. The horse armour matching the suit, which was to be used on foot, as Lord Dillon points out, did not exist at this period, and the figure was seated on the Burgundian horse armour of repoussé steel of the time of Henry VII., which still stands next

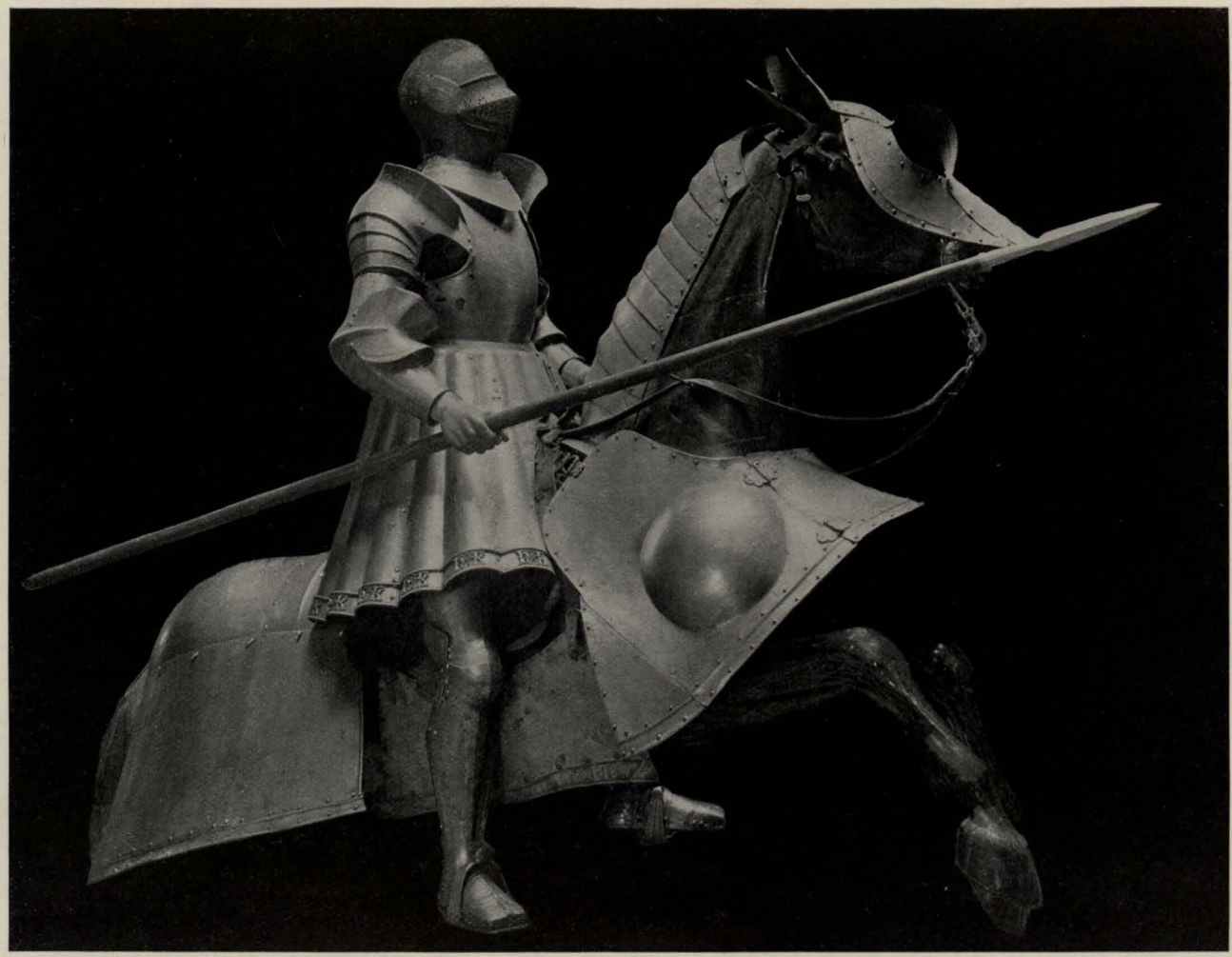


FIG. 29.—*Suit made for Henry VIII. by Conrad Seusenhofer of Innsbrück*, 1511-1514. *A present from the Emperor Maximilian I. In the Tower.*

to it in the Tower. The engraving on the horse armour or bard is designed in the same spirit as that of the armour itself, but is by an inferior hand. The subjects are treated in the style of Albert Dürer or Burgkmair, and represent incidents in the lives of St. George and St. Barbara, and besides the badges on the armour which are reproduced, the castle and the rose and pomegranate impaled appear, with the motto DIEV ET MON DROYT many times repeated round the edge. All these badges and engravings were illustrated, almost real size, by Meyrick, in the twenty-second volume of *Archæologia*. The horse armour was silvered and probably parcel gilt, like the body armour, and was made, it is supposed, by some of the German armourers brought over and established in Greenwich by Henry VIII. It is stiff and unwieldy, and does not very efficiently protect the horse, though its effect is dignified and even magnificent. The singular construction of the helmet has already been alluded to.

Contemporary with these suits is the fine German late Gothic fluted armour, known as Maximilian, nearly perfect examples of which are to be seen in every collection of importance. This was used for tilts, with the immensely massive outwork of plates to fend off the blows of the lance and other weapons, and to prevent the left leg from being crushed against the barrier. Some of the rarer Maximilian suits not only reproduce the cloth skirts of the civil costume in steel, but also innumerable puffings and slashings, which were the fashion of the day. Sometimes the helmets belonging to these suits have the mask-shaped visors, a specimen of which, also a present to Henry VIII. from Maximilian, still exists in the Tower. This formed part of a tilting harness, and is described in the 1547 inventory as "a hedde pece w^{t} a Rammes horne silver pcell guilte." In 1660 it was attributed to Will Sommers, the king's jester, and has subsequently been rendered more grotesque by paint and a pair of spectacles. A complete helmet of the same kind is preserved at Warwick Castle, as well as one of the rarer Italian helmets, with curling woolly hair represented in embossed iron, but without the visor.

All this armour was made for the shocks and pleasurable excitement of jousts, tilts, and tourneys, which its perfection and strength deprived of nearly every element of danger. Its weight and closeness

would indeed have made it insupportable on active service. The great revolution in the equipments for war, commenced by the artillery train and nearly unarmoured pikeman and estradiot, was now being completed by the reiter, pistolier and arquebusier. The massed man-at-arms, armed cap-à-pied, had borne down for the last time all before him with the lance, and was ceasing to play a decisive or even an important part in warfare. Armour in campaigning was becoming of little consequence, and even for the tourney a reaction was setting in against the extravagant and ponderous precautions devised by Maximilian and his admirer Henry.

The decision of battles now belonged to pike, bill, and musket. The infantry and light troops, who had hitherto been left to arm themselves as best they could, began to be dressed in some sort of uniform, with weapons and armour selected with some care, and used in definite proportions. It is certainly strange to read that the archers who did such splendid service at Agincourt were left to pick up any kind of helmet, bassinet, or cap, whether of leather or wicker bound with iron, and any description of side-arms, and were mostly without armour, save the pourpoint, with stockings hanging down or bare feet. Only the bows, arrows, and stakes were obligatory. In pictures, archers and the foot generally are represented in every kind of old brigandine, mail, bits of plate, or "jakkes" of linen, which inventories tell us were stuffed with horn or mail. It was only when the kings and nobles thought it worth their while to clothe and equip the foot-soldier that his costume became distinctive, and even sumptuous in the case of the bodyguards to Charles VII., Louis XI., or Henry VII. and VIII. A larger proportion of archers became mounted as the fifteenth century wore on, Edward IV. invading France with no less than 14,000, besides the foot. Picked men, and those of the bodyguards of kings and princes, like the Duke of Burgundy, were sometimes magnificently dressed. The uniform of the archers of the Duke of Berri in 1465 was a brigandine covered with black velvet and gilt nails, and a hood ornamented with silver gilt tassels. At the entry into Rouen, 1460, the archers of the King of France, the King of Sicily and the Duke of Maine wore plate-armour under jackets of various colours, with greaves, swords, daggers and helms rich with silversmiths' work. The leaders of other corps were in jackets striped red, white and green, covered with embroidery. English archers are

sometimes spoken of as gallantly accoutred. Under Henry VIII. the bodyguard called the "retinewe of speres" comprised two mounted archers in uniform to each man-at-arms, as in France. Every layman with an estate of £1000 and upwards had to furnish thirty long-bows, thirty sheaves of arrows, and thirty steel caps. In 1548 the uniform of the English archer was a coat of blue cloth guarded with red, right hose red, the left blue, or both blue with broad red stripes, and a special cap to be worn over the steel cap or sallad, to be bought in London for 8d. They were provided with brigandines or coats of little plates, mawles of lead five feet long, with two stakes, and a dagger. The distinguishing mark of the various bands was embroidered on the left sleeve. In 1510 Henry ordered 10,000 bows from the bowyers of London, and applied for leave to import 40,000 from Venice. In 1513 he took 12,000 archers to France, and in 1518 agreed to furnish 6000 archers to the emperor. In this reign they did good service, as in repelling the descent of the French at Brighton, 1515, and at Flodden, where the King of Scots was found among the dead pierced by an arrow. Some bow-staves of yew were recovered from the wreck of the *Mary Rose*, and are now in the Tower. At Dover Castle there are a long-bow and a cross-bow, stated to be part of the original armament.

The cross-bow was rarely favoured by Englishmen, though an imposing force of 4000 appeared in the united forces of England and Burgundy in 1411, each attended by two varlets to load, so that the weapons were always ready to shoot. In 1415, however, Henry V. only took ninety-eight from England in his whole force of 10,500 men, eighteen of whom were mounted. In 1465 the so-called mounted archers were very variously armed in France, with cross-bows, veuglaires, and hand culverins.

If so formidable a body as the English archers could be left to their own devices as to accoutrements in the first half of the century, the rest of the foot, armed with long weapons called staves, bills, and halbards, must have presented the appearance of a mere rabble. The French foot, armed with partisans, halbards, or javelins, bore the suggestive name of "brigans," and were much despised, but at Montlhéry in 1465 the greater part of the slaughter was by the "rascally Burgundian foot," with their pikes and other weapons tipped with iron.

The Swiss victory at Morat in 1476 undoubtedly led the French, and later the English, to introduce a disciplined infantry armed with the pike as a serious element into the army. In 1480 the French took the extreme course of disbanding the whole body of archers, substituting Swiss pikemen, and causing a prodigious number of pikes, halbards, and daggers to be made by the cutlers. Thus in 1482 the army of Picardy is composed of no more than 1400 men-at-arms, 6000 Swiss, and 8000 pikes. The proportions in England, ten years later, may be gauged by the Earl of Surrey's contingent of five men-at-arms, each with cushet and page, twelve demi-lances, twenty archers mounted, forty-six on foot, and thirteen bills. The archers remained an important force with us till long after Henry VIII., but it is only in his reign that the billmen and halbardiers occupy a definite position in the country's armed forces. These were armed with bill, sword, shield, sallad, and corselet. The costume of the foot and even the yeomen of the guard, 1000 strong under Henry VIII., changed with the civil dress, but always included the royal badge and crown. Henry proceeded to the siege of Boulogne in the midst of his pikemen with fifty mounted archers on the right and fifty mounted gunners on the left. Their costumes are seen in the Hampton Court pictures. In 1598 it was scarlet profusely spangled. Under Philip and Mary they were an even more important force, and under Elizabeth the backbone of the army was its pikemen, billmen, and harquebusiers, now armed, as in France, with Milanese corselets and morions. The bill was six feet long, of native production, the head at least twelve inches long, and bound with iron like the halbard, which was shorter, to at least the middle of the staff. The black bills were also shorter and from Germany, but the best halbards were Milanese. The partisan with us seems to have been more a weapon of parade, various in form, with or without wings, and richly decorated with engraving, painting, and gilding. The pike was eighteen to twenty-two feet long, with a tassel to prevent the water running down. The "Staves" in the Tower under Henry VIII. included 20,100 morris pikes, some highly decorated, and 2000 javelins, mostly richly mounted, as if for the Court guards. The army taken to France in 1513 comprised, according to the Venetian ambassador, 6000 halbardiers and 12,000 men with holy-water sprinklers, a weapon never seen

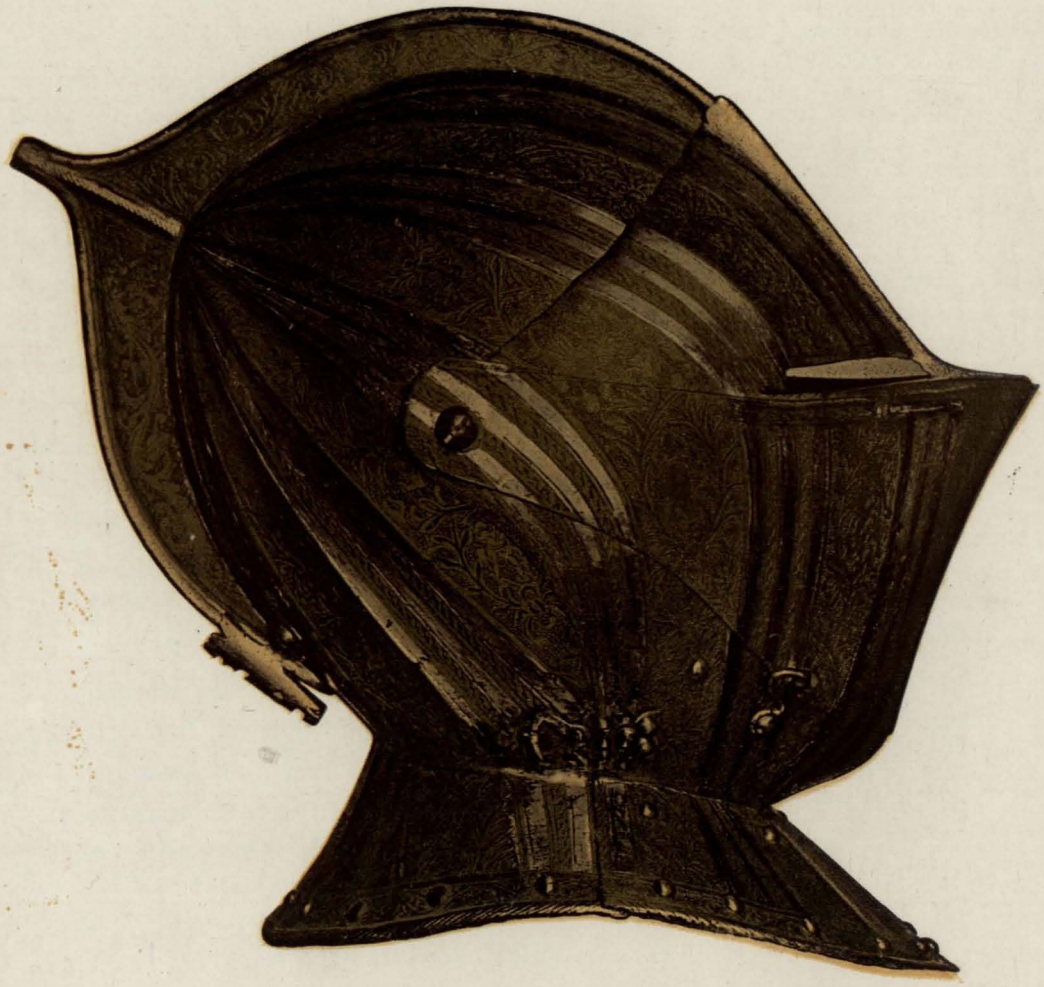


PLATE VI.—Profile of the helmet belonging to the French suit (fig 32).
In the guard-chamber of Windsor Castle.

before, six feet long, surmounted by a ball with six steel spikes. The name was a quaint joke, like the Flemish Godendag or the Swiss Wasist-das and Morgenstern. Besides these there were tridents, pole-axes, collen cleves, boar-spears, rawcons, partisans, and other forms of staff weapons in smaller quantities.

An English army sometimes comprised light cavalry even in the earliest times, perhaps none more singular than a miserably-accoutred force of mounted Irish armed with target, short javelin, and great outlandish knives, but without using saddles, in the reign of Henry V. The army of Henry VIII. in 1513 comprised 9000 to 10,000 heavy barbed cavalry and 8000 light horse, and 2000 mounted archers. His "Retinewe of speres" comprised a page, a cushet with javelin or demi-lance, and two archers, all mounted, to each man-at-arms. An English force of about 400 demi-lances serving Henri II. in 1552 "for their pleasure," were in short petticoats, red bonnets, body with brassarts of plate, and high leather boots above the knee, mounted on swift little horses and armed with a lance like a demi-pike.

The infantry, though not yet a permanent standing force, except in the case of the Royal bodyguards, was now a recognised arm into which men enlisted as a professional career for the term of their lives or until disabled. To handle the pike or arquebus efficiently required long training, and veterans were always accepted before recruits. It was their steadiness and power of manœuvring in action that lessened the value of heavy cavalry, and consequently contributed, more than any other circumstance, to the rapid disuse of the cap-à-pied suit of armour in the field, so noticeable in the next chapter.

V

The Age of Enriched Armour

ARMOUR began from about the accession of Edward VI. to cease to be a military necessity, and those engaged in practical warfare were more ready to dispense with its doubtful protection than to encumber themselves with its certain disadvantages. Excuses were found for appearing in the field without armour, or with an imperfect equipment, and punishments were inflicted in the vain attempt to stem the tide of change. Those who served on foot had naturally the strongest objection to bearing its weight, since when opposed to firearms it ceased to have any practical utility. A battle-scene at Hampton Court, the battle of Forty by Snayers, furnishes the strongest justification for its disuse among men-at-arms. It represents a number of mounted men in complete armour, who discharge horse-pistols point blank at each other's breast-plates, the individual struck falling in every case dead or wounded from his horse. The wheel-lock pistol, the arm of the German Reiters, who wore black armour, mail sleeves, and a visored morion, was in the field in 1512. From this time, therefore, armour was worn rather for display than service, and the purchaser came to value its defensive qualities far less than the magnificence of its decoration. Nor was ostentation in arms confined to the noble or knight alone. Brantôme says that among the pikemen and musketeers of Strozzi, De Brissac, and the Duc de Guise, thousands of gilt and engraved morions and corselets were to be seen on parade days, and the armour worn by the picked force of Spaniards and Italians sent by Philip of Spain to occupy the Netherlands was a splendid sight. The great and wealthy have seldom

FIG. 30.—*Part of a suit made for Sir Christopher Hatton.*

From the Spitzer collection, and now in the possession of Mr. Charles Davis. This is No. 15 in the Armourers' Album in the South Kensington Museum, reproduced in our Plate III.

cared to stint in matters of personal adornment, and in days when there were fewer ways in which a taste for extravagant expenditure could be combined with a high appreciation of art, fortunes were spent upon the coverings of the body. Nothing more sumptuous in applied art exists, in regard either to design or execution, than the work lavished on the armour produced for the French, Spanish, and other monarchs in the second half of the sixteenth and beginning of the seventeenth centuries. Among this the most exquisitely beautiful is the damascened work, scattered over Europe, persistently though erroneously attributed to Cellini, of which, perhaps, one of the finest examples is the target at Windsor. It is no exaggeration to say that neither chiselling, embossing, nor damascening on metal has ever rivalled or even approached that bestowed at this time upon royal arms and armour. The chief seats of production were in Germany and Italy, at Milan above all, then Innsbrück, Augsburg, Nuremberg ; and in a less degree Florence, Brescia and Venice. It is singular that few fine suits can be attributed to France, and fewer still either to Spain, the Netherlands, or England. The youth of Edward, the fact that female sovereigns succeeded, and finally, the timidity and horror of war felt by James, account for none of the known chef-d'œuvre suits being made for English wearers. Such extraordinary and magnificent armour was meet for none but the high-spirited and rival princes of Europe, and no king distinguished for valour occupied the throne of England during the period when enriched armour reached its culminating point of grandeur.

There are, however, a certain number of richly engraved and gilt suits which have been in the possession of English families from time immemorial, and the fortunate acquisition for the South Kensington Museum Art Library of an Armourers' Album of the time of Elizabeth, has enabled many of the original wearers of them to be identified. This MS., as Lord Dillon relates, was in the possession, in 1790, of the Duchess of Portland, daughter of Harley, Earl of Oxford, who permitted Pennant to engrave from it a suit of Robert Dudley, Earl of Leicester, for his account of London ; while Strutt was allowed to reproduce that of George, Earl of Cumberland, for his work on dresses and costumes. The book undoubtedly once formed part of the great Harleian Library, but was lost until seen in Paris some years ago by Baron de Cosson. It

was sold at the Spitzer sale, acquired by M. Stein, and offered to the Kensington Museum, by whom it was wisely purchased.

The drawings are in pen and ink and water-colours and represent twenty-nine full suits, besides the extra pieces for tilting. Some of them are inscribed "Made by me Jacobe," the name of the master armourer at Greenwich during part of Elizabeth's reign, and mentioned by Sir Henry Lee, the Master of the Armoury, in a letter to the Lord Treasurer, dated 12th October 1590, published by Lord Dillon in the fifty-first volume of *Archæologia*. Wendelin Böheim, the curator of the Imperial collections of armour at Vienna, has recently identified this Jacobe with Jacob Topf, one of three brothers, natives of Innsbrück or its vicinity, and who suddenly appears as court armourer in 1575. This post he seems to have retained and worked at Schloss Ambras till his death in 1597. Suits made by him during this period for the Archduke Ferdinand of Tyrol and Archduke Charles of Styria certainly bear some resemblance to those in the Album. Böheim infers from the Italian influence seen in his work, especially in the ornament, that Topf must have proceeded from the atelier of Jörg Seusenhofer to Milan or Brescia, about the year 1558, and taken up his abode in England between 1562 and 1575.

To support the identification of the Jacobe of the Album with Jacob Topf of Innsbrück, it is necessary either that all the suits should have been produced before 1575, or that those made at a later time should be regarded as by some other hand. The first two, for Rutland and Bedford, who died respectively in 1563 and 1564, are relatively plain, and have M.R. over them, and the rest E.R., which can only, it would appear, have reference to the initials of the reigning queens. All the figures are practically drawn from one model, though sometimes reversed, and are in an easy and graceful pose. Two of the richest, namely the second suit for Sir Henry Lee, the Master Armourer, No. 19, and the first suit of Sir Christopher Hatton, No. 15 of the Album, are here reproduced in facsimile, though reduced in scale (Plates II. and III.). One holds a mace and the other a truncheon in one hand, with the butt resting upon the hip, while the other arm is bent and the extended palm rests upon the thigh. They wear the close helmet or armet of Italian fashion, with a high comb and a large sharply-pointed visor. The gorgets are laminated, the

FIG. 31.—*Armour of Robert Dudley, Earl of Leicester*, 1566-1588. *In the Tower.*

pauldrons large and massive, the breastplates long-waisted, known as the peascod shape, ending in a point, with a ridge down the centre called the tapul ; the tassets are short and laminated. Only the front of the thigh is protected by laminated cuissarts, and the rest of the leg by close-fitting knee-caps and greaves. The sollerets are complete and take the shape of the foot. The swords appear to be simply cross-hilted and worn in scabbards. Both the suits reproduced are richly engraved with vertical bands of gilt arabesqued ornament in the Italian fashion : Sir Christopher Hatton's being on a russet ground with a gold corded pattern connecting the bands; and Sir Henry Lee's on a white ground with a knotted reticulated pattern between. The minor details are considerably varied in the other suits, two of which have been reproduced by Lord Dillon, and two by Böheim in the publications already referred to. The complete list comprises the names of many of the leading nobles and captains of Elizabeth's reign, only two in it being foreigners.

The ornament is sufficiently distinct to admit of the suits being identified where they still exist. Thus the Earl of Pembroke's suit is still at Wilton, in perfect preservation ; the suit of George, Earl of Cumberland, is in the possession of Lord Hothfield at Appleby Castle. The grand-guard of this suit, with volant attached, forms the subject of Plate IV., in which the original russet and gilding is somewhat restored. The ornament on the bands is an interlacing strap upon a foliated arabesque ground, with a figure of Mercury near the top, and two E's at intervals addorsed and crowned, coupled by a true-lover's knot. Between are large roses and fleurs-de-lis united by knots. The helmet of Sir Henry Lee's second suit, Plate II., is now in the Tower, having been identified by Lord Dillon, while a locking gauntlet belonging to it is in the Hall of the Armourers' Company. This gauntlet, called the "forbidden gauntlet," was in form of a closed right hand, the fingers fastened by a hook and staple, leaving an aperture for the passage of the weapon which, if a lance, or sword with cross-guard and pommel, could not be dislodged. In the Tower are also the vamplate of Sir Christopher Hatton's second suit, and the complete armour of the Earl of Worcester, with both the headpieces. A helmet of Lord Sussex's suit is in the Tower, and two gauntlets belonging to it were in the Spitzer sale.

Lord Bucarte's suit is in the Wallace collection at Hertford House, and another fine suit is in Armourers' Hall.

The first Sir Christopher Hatton suit, Plate III., has also recently reached this country, fortunately in almost perfect condition. It was disposed of in the Spitzer sale, and was purchased by Mr. Davies of New Bond Street. It will be a misfortune if this historic piece is not added to the national collection. Fig. 30 represents the upper part of this suit, taken from a photograph, with the high neck-guards attached to the pauldrons. The original front-plate seems to be lost, but the extra breastplate for tilting and some other extra pieces are preserved.

If Böheim is correct in his identification of Jacobe with Jacob Topf, and in his dates, the armour in the Album must be by different hands. Thus Topf, arriving in 1562, could hardly have made the first two suits marked M.R., the owners of which died, as we have mentioned, in 1563 and 1564 respectively. The mail defence for the instep and the relatively broad toes are features of an earlier time, which the letters M.R. identify as that of Mary, and show that the very broad stirrup of Henry VIII. was still in use. Neither could he, being settled in Innsbrück or at Ambras in 1575, have made the suits for Sir Henry Lee, as Master of the Armoury; nor that for Sir Thomas Bromley, as Lord Chancellor, though the latter suit may have been for Sir Nicholas Bacon, the previous Lord Chancellor. The chief difficulty is the date of Sir Henry Lee's appointment, which Lord Dillon in his able treatise, in the *Archæological Journal* for June 1895, gives as 1580, and the fact that the solitary mention of Jacobe in any document is by Sir Henry Lee himself, and is dated October 1590, in which he speaks of him as "the M^{r} workman of Grenewhyche," and in a way that could not well have reference to one who had quitted the post fifteen years before. These difficulties may, however, it is possible, yet be reconciled.

Among the fine suits in the Tower is the equestrian armour of Robert Dudley, Earl of Leicester (Fig. 31), not however one of the suits in the Album. It is, like the Jacobe suits, banded in the Italian fashion, with a similar kind of design upon the bands, and between them a broad impressed diaper of crossed ragged staves and leaves filled with fine arabesques. Among the enrichments can also be seen the George of the Garter,

FIG. 32.—*A superb suit of French armour in perfect preservation. Early seventeenth century. In the Guard-chamber of Windsor Castle.*

the bear and ragged staff, the initials R.D., and the collar of the Order of St. Michael and St. George, conferred upon this favourite of Queen

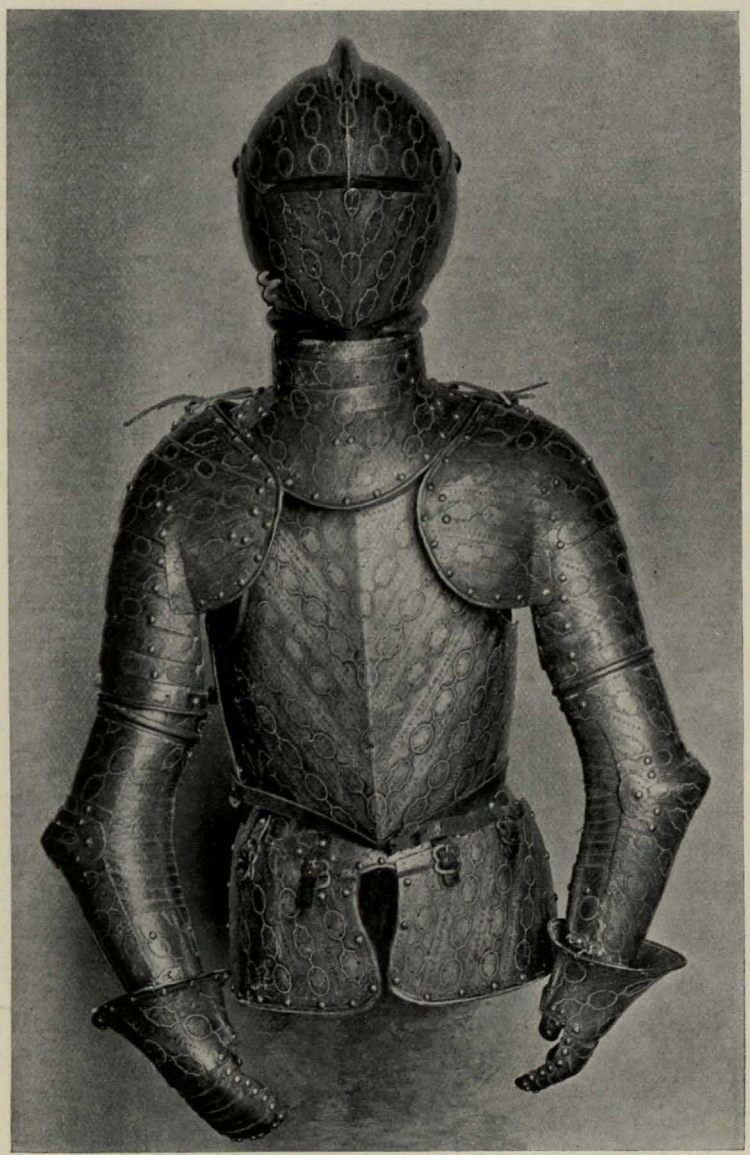


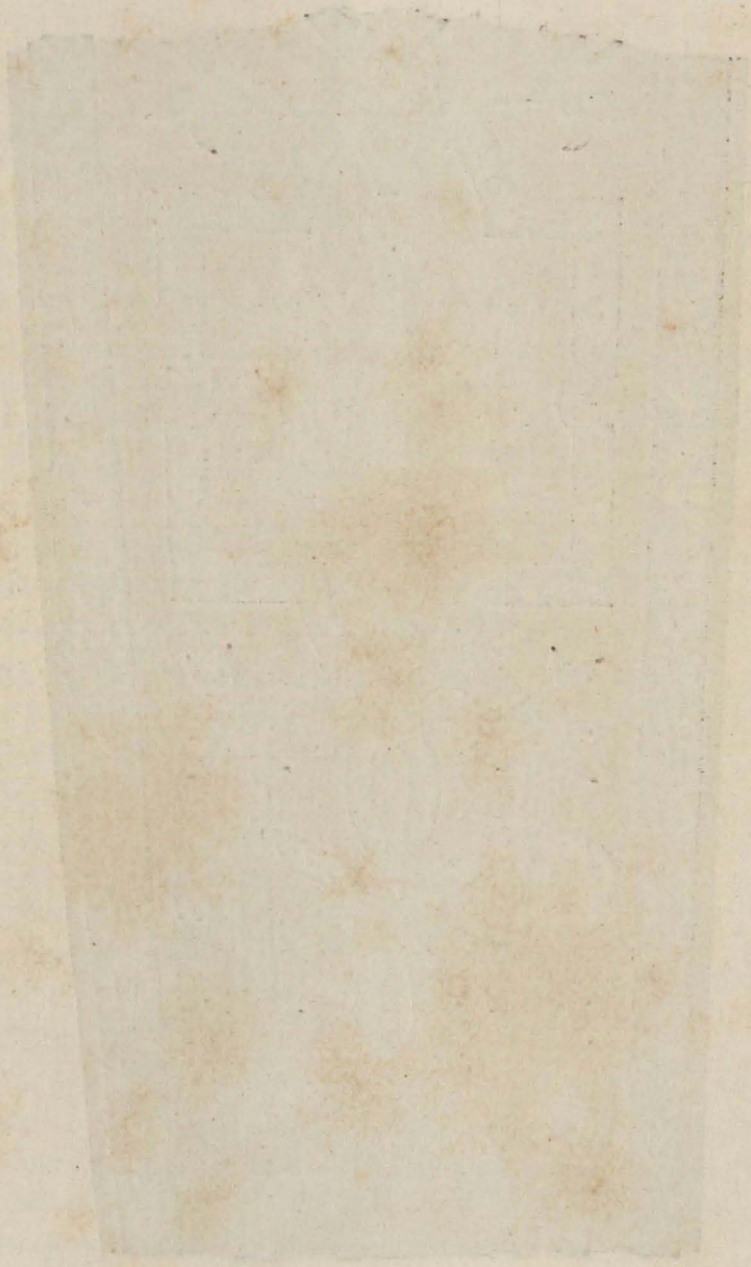
FIG. 33.—*Italian suit of blued and gilded steel covered with appliqués of gold. In the Guard-chamber of Windsor Castle.*

Elizabeth in 1566. In the illustration of this suit, Fig. 31, the bear and ragged staff is plainly visible on the horse's chamfron, from which

issues a twisted spike. The armet is combed, but differs in form from the Jacobe type, and the visor is pierced on one side with round holes. In other respects the fashion of the armour is very similar to that of his enemy, Sir Christopher Hatton. The grand-guard and pass-guard or elbow-guard are preserved with it. The former is illustrated, Plate V., with its original gilding restored, the military cleaning and scouring to which it has been subjected for so many years, not wisely but too well, having obliterated every trace of the original splendour of colour. A portrait of the Earl in this very suit exists, however, to show what it was. He died, it is well known, in 1588.

Several splendid and historic suits are preserved in the Guard-room at Windsor Castle. Among these, one, the suit of Prince Henry of Wales, son of James I. (frontispiece), bears a remarkable resemblance to the Jacobe suits, recalling especially the design of the Cumberland suit, Plate IV. But for the alternation of thistles among the fleurs-de-lis and roses between the bands of gilded ornament, the body armour in both would be nearly identical. The monogram H.P. appears on the gilt bands of strap and arabesque work. The gilding is in fine preservation, and except that the steel was formerly a deep blue, in the Milanese fashion, it is still as represented in the portrait of Prince Henry in the possession of the Marquis of Lothian. It has been attributed to William Pickering, Master of the Armourers' Company of London in 1608-9, on the faith of some payments made to him, which Mr. St. John Hope has noted as follows: "In March 1613, a warrant issued under sign manual, for the payment to Sir Edward Cecil of a balance of £300 due for armour value £450 for the late Prince Henry: and in July 1614 a warrant issued to pay William Pickering, Master of the Armoury at Greenwich, £200 balance of £340 for armour gilt and graven for the late Prince." The helmet somewhat resembles that of the Leicester suit, but has a singularly stiff, vertically-ridged gorget with scalloped edge, and heavier gauntlets. The leg-defences and sollerets do not differ appreciably from those already noticed. A number of the extra pieces and some of the horse armour belonging to the suit are preserved with it. If really by Pickering he was a close copyist of Jacobe. An apparently companion suit of Prince Charles is looked on with suspicion by Lord Dillon. Another of Prince Henry's suits,

PLATE VII.—Ornament on the tapul of the breastplate belonging to the half-suit of the Earl of Essex, (fig 35) with the original gilding slightly restored. In the guard-chamber of Windsor Castle.



presented by the Prince de Joinville, and now in the Tower, was originally of blued steel richly ornamented with classical designs in gold. There are also in the Tower a fine suit made for Charles I. when a boy, some silvered pieces, and the richly gilt and engraved armour presented to him by the City of London.

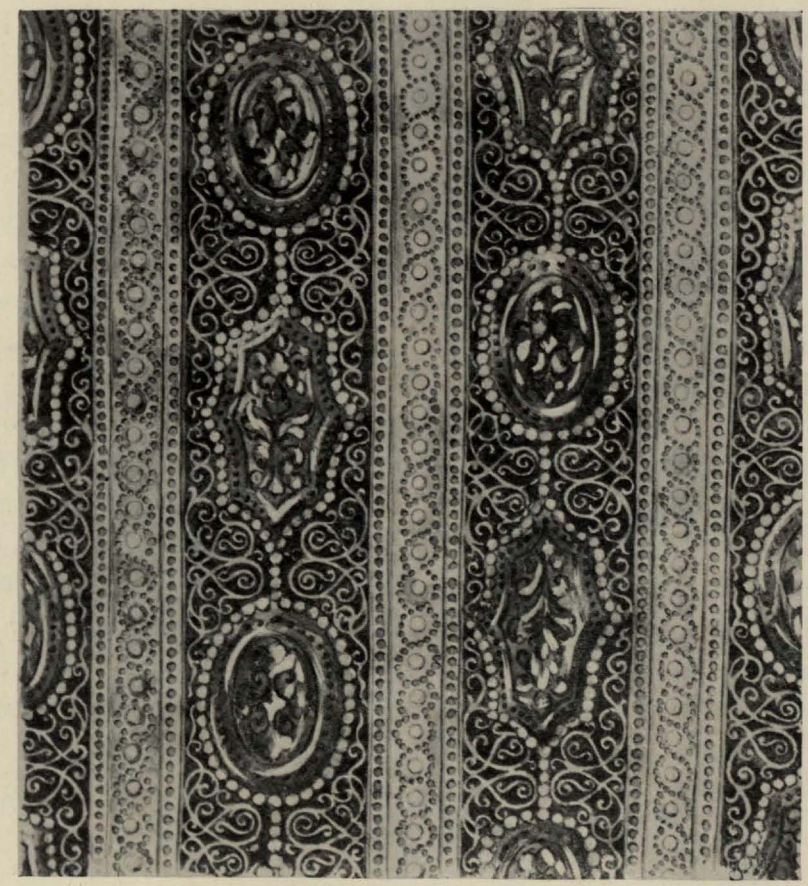


FIG. 34.—*A part of the ornament of the Italian suit* (*Fig.* 33), *drawn real size.*

Another suit at Windsor of extraordinary magnificence is that represented in Fig. 32. It is, unfortunately, not well set up, and differs considerably in construction from those hitherto noticed, and is of later date than the Jacobe suits. The tassets are replaced by laminar cuissarts extending to the knee, below which the suit is not continued. The ornament is banded vertically, like that of the suits previously figured,

but is of a richer character. Its details and colouring are reproduced on a larger scale in the helmet, Plate VI., which is combed, fluted, and of singularly graceful outline, with all its fastenings, plume-holders, and the stiffly-ribbed gorget in most perfect condition. The whole appears to be a specimen of rare French armour, but nothing is known of its history. Even more sumptuous, if possible, is the Italian suit, Fig. 33, which also exhibits some peculiar characters, such as the single plates in place of the tassets and the construction of the arm-defences and gauntlets. The setting up in this suit is also unfortunately defective. The extraordinary richness of the damascening and appliqué work is reproduced in Fig. 34, in which a portion is sketched real size. Nearly all the escutcheon-like appliqués have been picked off at some period, either for mischief or for the gold. The original owner of this suit is also unknown, but it may, with the one last described, have possibly been a present to Prince Henry, whose passion for military exercises and display is matter of history. The last of our illustrations (Fig. 35) taken from suits in the Windsor Guard-chamber is a demi-suit of the Earl of Essex, and is a war suit, something like a pikeman's, except that the closed helmet was not worn by dismounted men. This is combed, and introduces a shade or peak over the sight. It has no visor, but a bavier in two pieces protects the face. It should perhaps be described as a burgonet with gorget and movable mentonières. Probably only a part of the suit is present, that for use on foot, and the helmet may belong to the missing equipment for a rider, or if worn on foot it would have been as an open burgonet. The Jacobe Album introduces us to the burgonet and cabasset, a lighter morion, and shows that these were used when fighting on foot by even the greatest captains. This suit is also decorated in bands, a fashion almost universal during the reign of Elizabeth. The breastplate is the peascod with tapul form, and the cuissarts "à écrivisse" form the only protection for the legs. The ornament is more finely and delicately chased than that of any suit yet noticed. The design on the bands is an interlacing and knotted strap, filled with arabesqued foliage enclosing medallions with emblematic figures and flowers encircled by mottoes, as Futura præteritis, on a ground etched down, but with foliage and bright points like grains of seed, left on it. A part of this ornament is drawn full size in Plate VII.

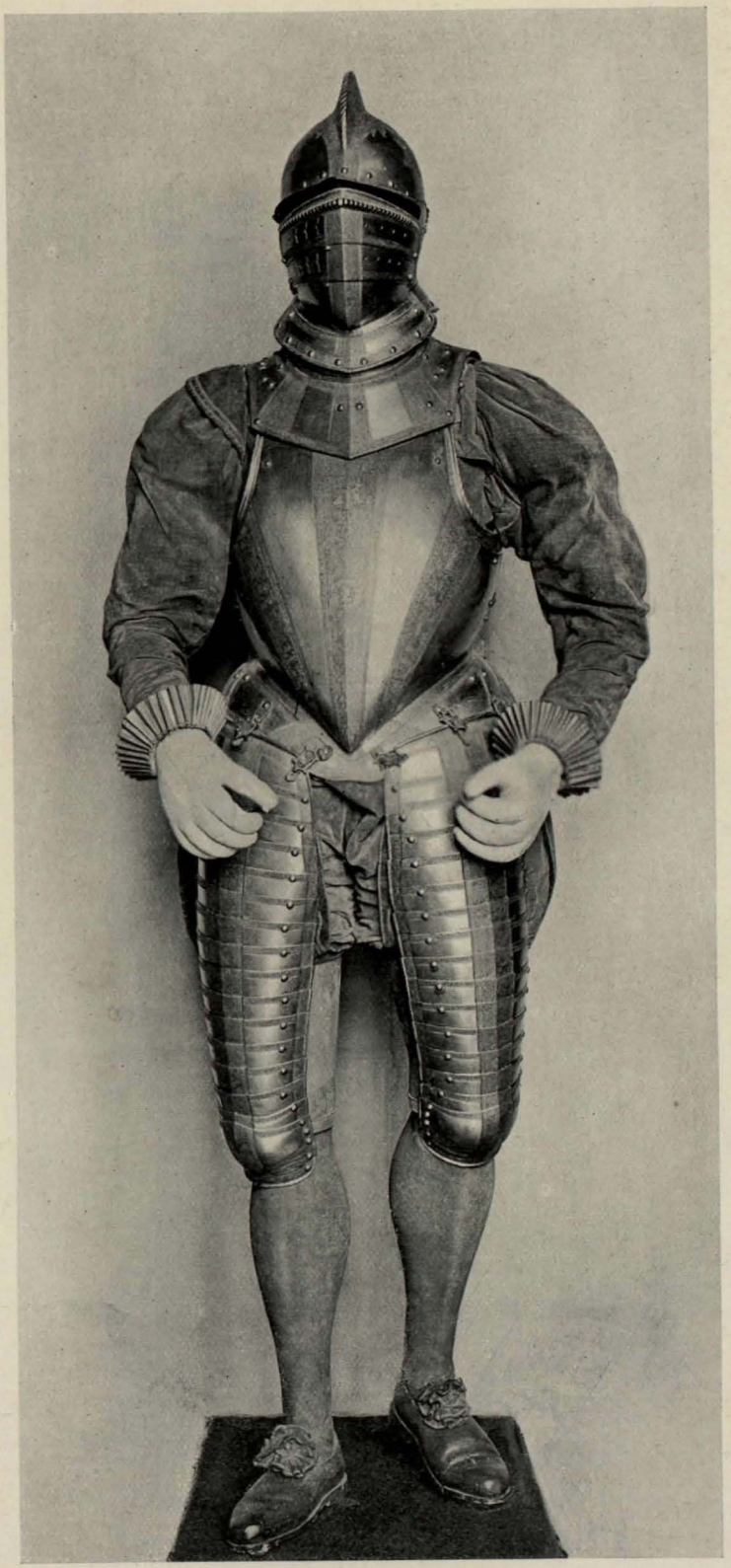


FIG. 35.—*Demi-suit of the Earl of Essex, with closed helmet, magnificently engraved and gilt. From the Guard-chamber at Windsor Castle.*

There is a suit in the Tower attributed to the same Robert Devereux, Earl of Essex, who was executed in 1601, also richly engraved and gilt.

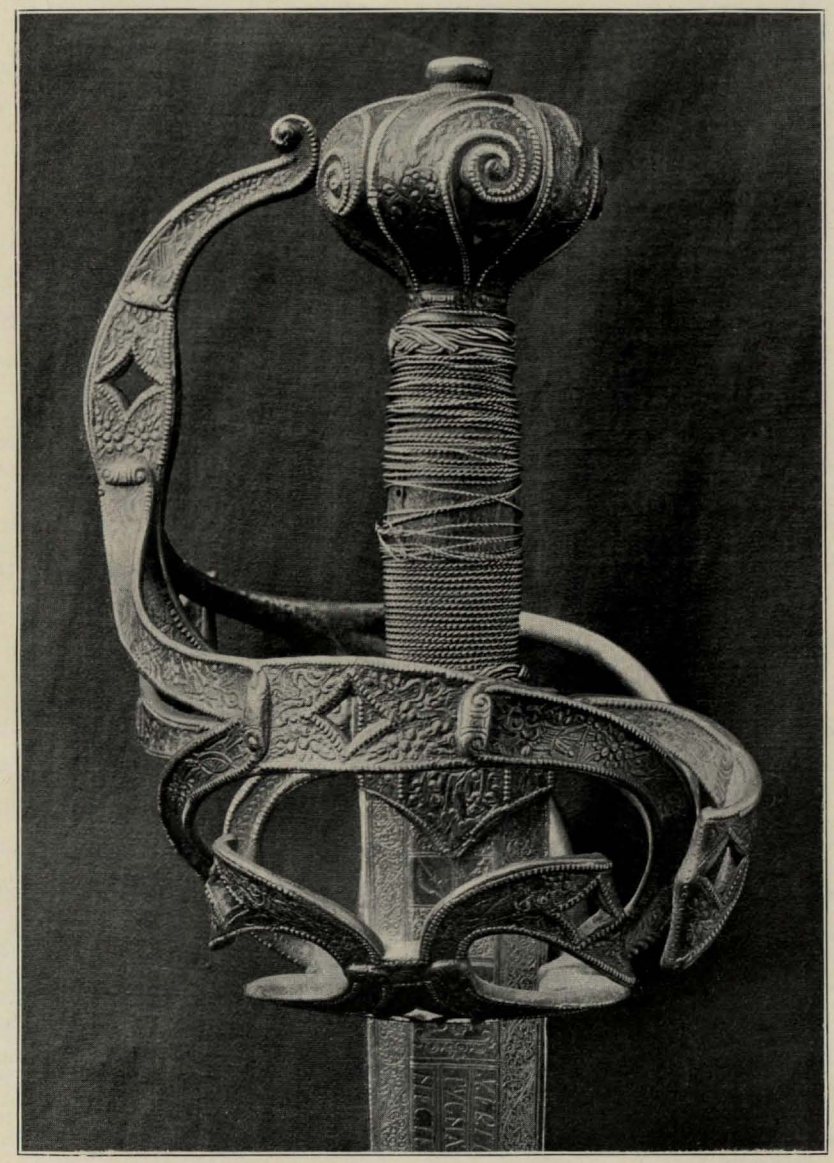


FIG. 36.—*Sword, probably of James I., with basket hilt, entirely covered with raised gold damascening. Preserved in Windsor Castle.*

The suits now divided between Windsor and the Tower evidently formed part of a single collection. Those at Windsor are placed on

brackets at such a height that they can only be inspected from a ladder, and they sadly require setting up, in the way that Lord Dillon has mounted those in the Tower. It is perhaps unfortunate that the national collection of armour is so scattered, parts being, besides the great collections at the Tower and Windsor, in the British and South Kensington Museums, Hertford House, Woolwich Rotunda, and Dover Castle, while most of the earlier English and historic pieces are still in churches and cathedrals. If brought together, properly displayed and added to in a reasonable manner by the purchase of such suits as that recently sold in the Spitzer sale, a suit of fine quality and directly connected with our national history, it might become worthy the country, and rank in time with the great armouries of Vienna, Paris, Madrid, Turin, or Dresden.

Besides the half-dozen really magnificent suits in the Guard-chamber at Windsor, there is a vast collection of arms and weapons in the North Corridor, formed in a great measure by Her Majesty. Among these are three swords intimately connected with our history. Of these, that of Charles I. has a pommel and guard of steel overlaid with raised gold damascening, and a grip covered with silver wire woven like basket-work (Plate VIII.). The blade is decorated with Latin inscriptions in Roman capitals along both margins, back and front, and in circles at intervals. Between these are panels, alternately of emblems and ornament, and of arabesqued scrolls, damascened so minutely that the work is almost invisible until magnified. The small portion of the blade in our figure shows the character of the work. The royal arms, Prince of Wales' feathers, and date 1616 on the blade show that it was made for Charles I. when Prince of Wales. The second sword, with the magnificently-worked basket hilt of chased gold inlay on steel (Fig. 36), has a similar blade, marvellously fine arabesques taking the place of the marginal inscriptions. It is otherwise nearly identical with the last, the spread eagles, griffins, etc., being common to both. The presence of the lion of England under a royal crown points to James I. as its owner. The third sword (Fig. 37) is that of John Hampden. Its blade is plain, but the hilt is of superb workmanship and of carved steel. The grip is small, and, like the pear-shaped pommel, covered with warriors in relief in Roman dress. The quillons are slightly curved, and carved with

PLATE VIII.—The sword of Charles I. when Prince of Wales, 1616. The hilt entirely covered with raised gold damascened work on blue steel matrix; except the grip of silver wire work. Preserved in Windsor Castle.

pomegranates and foliage, with figures reclining horizontally to form the extremities. The smaller front guard over the blade, known as the

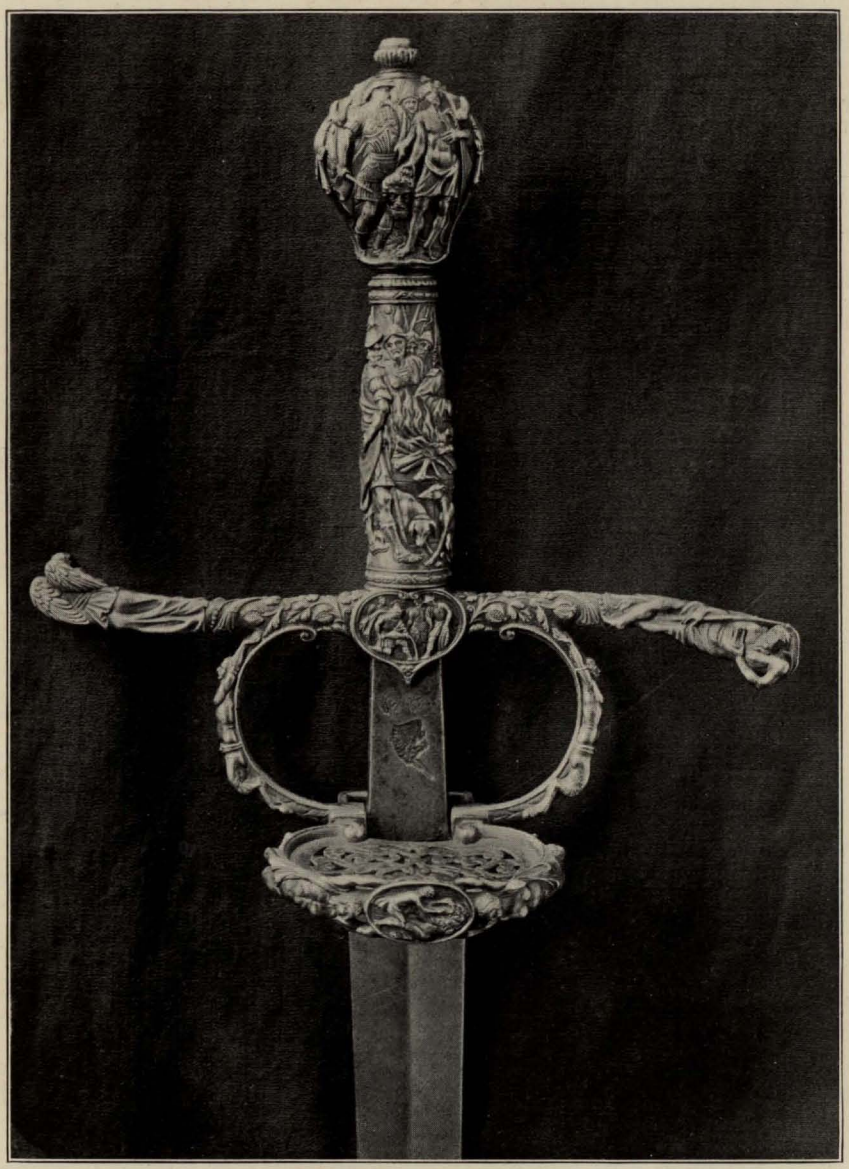


FIG. 37.—*The sword of John Hampden, with hilt of carved steel. Preserved at Windsor Castle.*

"pas-d'âne," and most elaborately worked with figures and medallions, is a prominent feature of the hilt. All three swords bear the unicorn's

head mark of Nuremberg, but the two enriched blades can be identified, thanks to the assistance of Baron de Cosson, as the work of Clemens Horn of Solingen, 1580-1625. There is a similar sword in the Royal Armoury at Madrid, belonging to the suits made by Desiderius Kolman for Philip II., and another is in the Baron's own collection. The sword, as the emblem of knightly honour and faith, was from the remotest times a vehicle for the richest decoration; but it is doubtful whether any specimens were ever produced, even by the combined efforts of the swordsmith and jeweller, to equal the work of those here represented, which are not only connected with the history of our country, but happily also the property of the nation.

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