ARMS—*continued*

boar-spears, run through with hunting-swords by mounted men, and speared with javelins thrown by men on horseback and on foot.

To refer first to the bow and cross-bow, there are six plates (VII., XXXIX., XXXXIV., XXXXV. that explain to us how cross-bows were used, two of these (XXXX., XXXXIII.) illustrating also the use of the long-bow. In the last-cited plate we see both arms used for shooting hare, at which, by the way, *greyhounds* are apparently pointing. The bolt used by the cross-bowman and the arrow which the man in the foreground is in the act of firing at pussy from his formidable long-bow were provided with pear-shaped knobs instead of the sharp, barbed points used for stag and boar. This was to prevent mutilation and to leave such small quarry fitter for the table. These blunt arrows were used also for bird-shooting, remaining in use for this purpose until the seventeenth century. Plate XXXIX. is probably the most interesting of all, for it shows us in a lifelike manner how the cross-bow was bent by means of the iron hook suspended from the girdle.

At this point it may perhaps prove of interest to say something about the mediæval cross-bow in general, premising what one is apt to forget that the *veneurs* of old did not use missive weapons to anything like the same extent as did their successors, say, from the end of the sixteenth century on, when fire-arms had come into general use, and the slaughter of vast numbers of stags and other game became not only the fashion, but was made the object of personal rivalry among the governing classes. Before the adoption of gunpowder for the chase, the sport of hunting consisted in the taking of a single animal by pursuing it either on foot or on horseback with slow but carefully trained hounds, the final killing of the beast, when brought to bay, being generally done with the spear or hunting-knife at often dangerously close quarters, as for instance in the case of a cornered bear or boar. The longer the chase lasted, the rougher the ground, the denser the forest, the wider the rivers, the greater was the test of the skill and endurance of man, horse, and hound. For this reason, if for no other, the older literature on the subject of the chase contains comparatively little concerning the long-bow and cross-bow, and in the pictorial material the chief emphasis is laid on the hunting of game and the working of the various kinds of hounds employed by the sportsmen of old.

From evidence which we shall examine presently, we can conclude that in France the long-bow remained in general use for the chase up to the first half of the fifteenth century, when the cross-bow came into favour. The cross-bow was already known to the Romans, for as Viscount Dillon points out, there exists a picture of one on a Roman "bas-relief" at Clermont Ferrand. Into general use in England this Oriental weapon does not seem to have come until the twelfth century, for although Odo the "arbalister" is mentioned in Domesday book, the only missive arms shown in the Bayeux tapestry are the long and the short bow. Saracens or returning crusaders probably made the cross-bow popular in England; thus we know that Peter the Saracen was King John's cross-bow maker at 9*d.* a day, A.D. 1205. Richard Cœur de Lion's share in the introduction of the cross-bow is a well-known historical fact, for his death by Bertrand de Gourdon's bolt at the siege of Chaluz Chabrol was for centuries considered as a visitation of divine providence. It was, according to popular belief, a demonstration of God's wrath at Richard's sacrilegious contravention of the interdict passed by the second Lateran Council, A.D. 1139, prohibiting the use of the diabolic cross-bow in warfare among Christians. "Each shot," said they, "deprives a mother of her son, while noble knights are made equal by it to the lowliest vilain."

The question whether William the Conqueror used the long-bow or the cross-bow for the chase is still in dispute among antiquaries, for Wace's reference to his having an "arc" in his hand while hunting in his park at Rouen, when he received the news of Edward the Confessor's death, is not as positive as it might be. For "arc" was the term used to describe the long-bow, while the fact that he is said to have handed to his varlet the arc "ready strung and charged" would show that it was a cross-bow. A similar uncertainty appears to exist regarding the precise nature of the weapon by which William Rufus was killed in the New Forest, where, by the way, his brother Richard and a nephew shared the same though less known fate.

At that period cross-bows were still exceedingly cumbrous affairs, and, according to one Continental account, men had to lie down on their backs to bend them by pressing with both feet against the bow and draw the cord with both hands up to the notch. But improvements seem to have been adopted fairly early in the following century. An iron stirrup was attached to the front of the stick, and various types of winches and levers were invented to bend their bows, which again were made heavier and stiffer so as to shoot further. Of these contrivances the "cranequin" or "cric" or "quindaz" seems to have been the most powerful, but also the latest to be invented. The portable windlass with two long-armed handles we see in numerous fifteenth-century illuminations that show us plainly how this powerful contrivance was handled. The "cranequin" or "crennequin" was less cumbersome; it was also known as the "moulinet," which, with the aid of a strong iron pin that traversed the stock about six inches behind the nut or notch, enabled the archer to bend the bow by a sort of rack and pinion winder. Then there were the *arbalètes à pied de biche*, as the French called them, that were bent by the goat's-foot, a short lever with two articulated hooks at the end to catch hold of the cord when pulling it into position by means of the handle. And finally there was the yet simpler contrivance consisting of a plain or bifurcated hook, which we see in our plates. It was carried fastened to the belt of the archer. When bending the bow he hooked the two iron catches on to the cord, and placing one foot in the stirrup, pressed the cross-bow downwards, while he raised his body