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THE

BRITISH ARMY:

ITS

Origin, Progress, and Equipment.

BY

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THE BRITISH ARMY.

CHAPTER I.

KNIGHTS AND MEN-AT-ARMS — NUMBERS ESTIMATED BY PENNONS AND BANNERS—PENCELS—GONFANON — COLOURS — EPOCHS OF CAVALRY—HOW MEN-AT-ARMS CHARGED—INFANTRY MIXED UP WITH CAVALRY —SPEARS AND LANCES—CUIRASSIERS AND PISTOLIERS—LIGHT HORSEMEN—OFFENSIVE WEAPONS OF CAVALRY—HOBILERS—EQUIPMENT OF CAVALRY—DRAGOONS—SWYN-FEATHERS—CAVALRY NOT PRE-EMINENT IN ENGLISH SERVICE—INNATE LOVE OF FIELD SPORTS—FRENCH MORE USED TO MARTIAL EXERCISES THAN ENGLISH—SCARCITY OF HORSES —PRINCE RUPERT—CAVALRY IN CIVIL WAR—GENERAL FOY AS TO QUALIFICATION OF CAVALRY OFFICERS—THE FUTURE OF CAVALRY.

Ancient Cavalry.

THE cavalry of our ancient English armies, dating from the Conquest upwards, consisted of knights and men-at-arms, who constituted the heavy cavalry; and demi-lances, hobilers, and mounted archers, who were equipped for light and active duties. Cavalry and chivalry, as is plain, had the same derivation. (1)

(1) *Cheval*, French; *cavallo*, Italian; *caballus*, Latin; *καβάλλης*, Greek; *coperl*, Irish; *caperl*, Gaelic; *kefyl*, Welsh.

> "Eques ab equo, is said of every ryght,
> And chevalier is said of chevalrie,
> In whiche a rider called is a knight.
> Aragoners doue also specifie
> Caballiero through all that partie.

Honour was awarded in all times to those who rode on horseback; so we find the Greek horseman and the Roman *eques*,(1) and after them the knight,(2) the chevalier, the caballero, and the reiter, forming an equestrian rank of the *élite* of all countries. "The superiority of the feudal warrior, who fought on horseback," says Sir E. Creasy,(3) "protected by his coat-of-mail armour, over the common people, who fought on foot and without armour of defence, was effective in war, and tended more and more to encourage the pride of superiority of class."

Men-at-arms were simply men in armour—heavily armed cap-à-pie, "*ad unguem armati*"(4)—consequently, every knight was a man-at-arms, although every man-at-arms was not a knight. As a class, they consisted mainly of tenants *in capite*, holding of the Crown by tenure of military service, or their substitutes (*servientes*); and it included pretty nearly all

> Is name of worship, and so took his ginning
> Of spurs of gold and chiefly riding."

(Lidgate, in his *Tales of the Horse, the Sheep, and the Goat*, quoted by Meyrick, i., p. 62.)

(1) Both at Athens and Sparta we find ἱππεῖς, horsemen, to have composed the second order in the Commonwealth, being placed above the commonalty, and next to those of the highest quality and fortune. The same is recorded of the Roman *equites;* and we are told by Herodotus (*Terps.*, v.), that among the Chalcidians none but rich men were admitted into that order. (*Vide* Potter's *Antiq. of Greece*, ii., p. 11.)

(2) It is curious that the English name of the degree knight is almost the only one which does not imply its equestrian nature. *Cniht*, in Saxon, implies *young man*—the two important elements in forming a perfect warrior, namely, youth and strength. (Selden, *Tit. Hon.*, c. v., s. 33.)

(3) *Rise and Progress of the English Constitution*, p. 82.

(4) Matth. Paris, *Hist.*, 204.

those who were able to afford the luxury of riding on horseback.

It has already been shown how, under the feudal system, provision was made for the supply of armed men for the service of the State; and that, from the time of Edward I., every man, from the age of fifteen to sixty, who possessed £15 in land and forty marks in goods, was to provide a hauberk of iron, a sword, a knife, and a *horse;* up to the 4th of Philip and Mary, when all temporal persons, having estates of £1,000 and upwards, were directed to keep *six horses,* or geldings, for demi-lances, and *ten light horses,* or geldings, for light horsemen.

As the most important forces in early days consisted of cavalry, so we find that the old chroniclers often speak of men-at-arms only in enumerating the combatants in an engagement; or, in describing the numerical strength of cavalry in different armies, they estimate it according to the amount of pennons and banners.(1) There are abundant instances of this enumeration in Froissart; but as these represented uncertain and varying numbers, it is always a difficult matter to arrive at an accurate computation of the strength of armies in the field.

Every simple man-at-arms had an attendant or two; if a knight, he had double pay, and a retinue

(1) "Vingt mille hommes d'armes sans les autres." (Froissart, i. 338.) "Et avoit le roy d'Angleterre en cette première route vingt-deux bannières et soixante pennons, et etoient bien huit mille homme de bonne etoffe." (*Ibid.*, i. 82.) "Le roy de France il y eut onze vingt et sept bannières, cinq cents et soixante pennons." (*Ibid.*, 83.)

according to his means; if a banneret, twice as much pay again, with a large retinue, for that dignity was only conferred on those capable of supporting it. This complement of men and horses, whatever it might be, constituted "a furnished lance" (*lance fournie*, or *garnie*), as the term was. We employ the same figure of speech when we speak of a drum or a trumpet, when we mean a drummer or trumpeter—the individual and instrument combined; or bayonets for infantry, scabbards for cavalry, guns for artillery; and so forth. We read in Froissart, *anno* 1382, "Je suis informé que le roi de France a bien vingt mille hommes d'armes: ce sont soixante mille têtes armées." Our King Henry V., preparing for his French expedition in 1415, ordered stowage for horses to be allowed in the transports at the following rates:—

50 horses for the Duke of Clarence, the King's brother.
24 horses for an earl.
16 " each banneret.
6 " " knight.
4 " " esquire.
1 " " archer.[1]

The proportion of archers to lances was, by 9th of the 10th Henry V., settled at three to each lance. (*Vide* Proceedings of the Privy Council, ii. 331.)

In 1492, the Earl of Surrey undertakes to serve the King "with v. men, himself comprised, every of them having his custrell[2] and page." (Rymer, xii. 478.)

(1) Rymer, *sub anno.*
(2) Coustiller, as we often find it elsewhere written, so called

Henry VIII. was attended by forty spears of his guard (gentlemen pensioners). Each spearman or pensioner was obliged to *furnish* a retinue consisting of a page, custrell, and two archers; so that the forty must be multiplied by five, if we wish to ascertain the strength of the Royal escort. (1)

It has already been stated that the pennon was the distinguishing ensign of the knight-bachelor, as the banner was of the knight-banneret, and that the pennon was in figure and size like a banner, with the addition of a triangular point or tail. They were charged with the armorial bearings of their owners. When, for some signal service, the bachelor was to be promoted to the dignity of a banneret, this was often done in the field, by cutting or tearing off the point of the pennon, and thereby rendering it square. An instance of this clipping of the tail of the pennon is recorded by Olivier de la Marche (liv. vi., ch. 25), on the occasion of Messire Louis de la Vieuville requesting permission of the Duke of Burgundy to fly a banner (*relever bannière*). The bachelor was accompanied by twenty-five men-at-arms, according to

from the long knife-like swords which they originally wore. "Forma retentionis Costerelli pro guerra Franciæ.—Thomas Grey, Squyer, retained as a custrill to attend about the King our Soveraigne Lord's own person, and with six archers. Wages for himself, xii*d.* by the day; archers, vi*d.* by the day." (14 Edw. IV., 1474. Rymer.)

(1) As a proof of the varying amount of the *lance fournie*, under Charles VI. (of France), each man-at-arms had ten horses; under Charles VII., seven; Louis XI., six; under Charles VIII., Louis XII., François I., and Henri II., eight. (See Daniel, *Mil. Fran.*, i., liv. iv., ch. ii.; and *Chroniques de Louys de Valois*, quoted in *Études de l'Artillerie*, i., p. 58.)

custom. The duke assented, "si baillé le Roi d'Armes un couteau au Duc; et prit le pennon en ses mains, et le bon Duc sans ôter le gantelet de la main senestre, fit un tour autour de sa main de la queuë du pennon, et de l'autre main coupa ledit pennon, et demeura quarré; et la Bannière faite."

Knight-banneret.

This dignity was, however, one attainable only by the rich, on account of the retinue it entailed; and it was, therefore, often declined. The gallant Sir John Chandos brought his banner, rolled up, to the Black Prince, just before the commencement of the battle of Najara, and said, "Monseigneur, vecy ma bannière, je vous la baille, par telle manière qu'il vous plaise, à développer, et que aujourd'hui je la puisse lever; car Dieu mercy, j'ai bien de quoi, terre et héritage, pour tenir état ainsi qu'il appartient à ce." (1) The knight-banneret did not bear his banner in action. Chandos delivered his to a worthy English esquire, who bore it well and loyally throughout that day. It would appear that a banneret was entitled to a pennon in the field as well as his banner, (2) and a king to a

(1) Froissart, i. 534.

(2) *Ibid.*, ii. 208.—Banneret was a distinction which must be conferred in the field, and under the king's standard. It is not known to have occurred in England previous to the reign of Edward I.

From about the commencement of the sixteenth century, the title seems almost to have been laid aside. After the battle of Musselburgh, the Duke of Somerset exercised the privilege conferred on him by patent, and made many knight-bachelors, and three bannerets —Sirs Ralph Sadler, Francis Brian, and Ralph Vane. (See K. Edward VIth's *Diary*.—Also *Archæol.*, xxx. 473.)

Colonel John Smith having rescued the Royal standard from the Parliament's forces, at Edgehill, was made a banneret by Charles I. (afterwards killed at Alresford). From this time we hear of no more

pennon and banner in addition to the Royal standard, according to an ordinance of Philip IV., in 1306. (1)

The flying of so many banners and pennons (esquires appear to have led sometimes a body of men under a pennon) (2) must have added greatly to the imposing effect produced by mediæval armies when assembled in the field. The grand spectacle was not lost upon the observant Froissart, who often alludes to it. "La etoit, ce grand beauté de voir ces bannières, ces bassinets, ces belles armures, ces fers de lances durs et appareillés, ces pennons et ces armoiries." The majesty of sound produced by the thunder of powerful artillery was not there—save the tardy discharges of the few guns brought into position—nor the rattling fire of masses of infantry; instead, there were the loud war-cries of the combatants, with the counterbalancing advantage of the absence of smoke, so as not to impede the view of the long lines of barded war-horses, with their riders in gleaming armour, or covered with the dazzling jupon, and bearing before them their lofty lances and variegated

till July, 1743, when the title was bestowed on several English officers (including two dukes and five earls) upon the field of Dettingen.

William III. is stated to have created Sir Robert Adair (of Ballymena, Co. Antrim) a banneret on the field, after the battle of the Boyne that gentleman having raised a regiment of horse, and commanded it much to the satisfaction of the King. (See *Hist. of the Hered. Sheriffs of Galloway*, by Sir A. Agnew, Bart., M.P.)

George III. gave the title to General Sir W. Erskine, on his return from the battle of Emsdorff, in 1764, in Hyde Park: but the proceeding being considered irregular, his rank was not generally recognised; for, although the dignity was conferred under the Royal standard, it was not in actual warfare. (*Vide* Parker's *Glossary of Heraldry*.)

(1) Quoted in *Mil. Fran.*, i. 520.

(2) Froissart, iii. 90.

shields. "Certes c'étoit très grand' beauté que de voir sur les champs bannières et pennons ventiler, chevaux couverts de draps à leurs armes, chevaliers et écuyers armés si très nettement que rien n'y avoit à ramender."(1)

> "Ten thousand thousand ensigns high advanc'd,
> Standards and gonfalons 'twixt van and rear
> Stream in the air, and for distinction serve
> Of hierarchies, of orders, and degrees."
>
> *Par. Lost,* b. v., l. 589.

Use of Banners.

At Buironfosse the English had 74 banners and 230 pennons. The French had 220 banners and 560 pennons. The use of these banners, and other ensigns, was to distinguish different bodies of troops, to point out the position of commanders, and to serve as rallying points in time of danger. "Le pennon de Messire Eustache, qui y étoit l'étendard et la ralliance des Anglois." (2) The Black Prince, after the battle of Poitiers, "fit sa bannière mettre sur un haut buisson, pour toutes gens recueiller, et corner ses menestrels;" (3) and Galon de Montigny, who bore the standard of Philip Augustus at the battle of Bouvines, made known the imminent peril of his master, and procured assistance, by incessantly raising and lowering it over the spot where the unequal contest was raging. (4)

(1) Froissart, i. 83.
(2) *Ibid.*, i. 406.
(3) *Ibid.*, i. 357.
(4) Guiart.—Julius Cæsar's practice in case of disorder deserves mention. He directed that, in action, the troops should rally and form round the first standard they could find, and not lose time and opportunity by hunting for their own. (*Bel. Gal.*, ii. 21.)

Kinds of Ensigns.

The different kinds of ensigns anciently in use were standards, banners, pennons, guidons, pencels, and lance-flags. A figure of a dragon was in use by the Saxons at the time of the Conquest, and it appears to have been retained amongst their ensigns of war by the early Norman princes. The Bayeux tapestry has preserved for us some of the earliest authentic examples. They were, for the most part, small in size, and generally terminated in three points. With the Crusades, when heraldry began to assume a definite form, flags became subject to established rules. Carrying a standard or banner in the battle-field was always considered a post of honour; and we frequently meet with instances of persons rewarded with pensions for the valiant performance of that duty. (1) The office of Royal standard-bearer was usually granted for life, with a very large salary. Up to 1340 the Royal standard of England was charged with three lions *passant-gardant* in pale, and in that year Edward III. began to bear the arms of England and France quarterly. The brass of Sir Symon de Felbrigge, K.G., presents an example of a Royal banner. In the picture of the siege of Boulogne, *temp.* Henry VIII., engraved by the Society of Antiquaries from the fresco originally at Cowdray House, Sussex, Sir Anthony Browne, great standard-bearer of England, is conspicuous, waving in his hand the King's standard, charged in chief with the Dragon of Cadwallader,

(1) *e.g.*, Rymer, A.D. 1350, 24 Edw. III.—a payment of 200 marks for life to Guido de Bryan; and *Rolls of Parl.*, 4 Edw. IV., p. 548, £10 per annum to Rauf Vestynden.

and near to the extremities of each point with the cross of St. George. (1)

In the twelfth and thirteenth centuries frequent mention is made of standards that were displayed from a species of car, which also conveyed them from place to place. The Battle of the Standard, in 1138, was so called from the car-standard which was brought into the field by the English; it was formed of a long pole placed on a car, having at its summit a silver pix, containing the Host, and beneath, three banners—those of St. Peter, St. John of Beverley, and St. Wilfrid of Ripon. (2) At the battle of Lewes, in 1264, between Henry III. and his barons, "the King went forward to meet the enemy with unfurled banners, preceded by the Royal ensign, which was called the Dragon." When the revolted barons, with De Montford at their head, "had reached a place scarcely two miles distant from the town of Lewes, Simon de Montford, with his friends, ascended an eminence and placed his car thereon, and displayed his standard, fastening it securely to the car." (3)

(1) *Vide Archæol.*, iii. 256.

(2) *Anc. Arm.*, i. 109.

(3) M. Paris, p. 853.—Chron. of Dunstable, p. 366.—M. Westminster, p. 387.—Some old chroniclers relate that Richard, King of the Romans, who had come to assist his brother Henry III., was captured in a windmill after the battle. (Hearne, *MSS. Coll.*, vol. 106, p. 82.) Robert of Gloucester mentions the same circumstance. (Edit. Hearne, p. 547.)

"The King of Alemaine was in a wind—
mulle inome."

Richard and Prince Edward took shelter in the Gray-friars at Lewes, but were afterwards imprisoned in the castle of Wallingford. (See Hearne's *Langtoft*, *Gloss.*, p. 616, and Robert of Gloucester, p. 548.) Robert de Brunno translates the event of this battle with

Banners were quadrangular, like the present cavalry standards, which would be more correctly called banners. They were charged with the coats-of-arms of their owners, and not with any other device. The Roll of Caerlaverock gives the blazon of the banners of nearly one hundred of the nobles and bannerets who were present at the siege with Edward I. in 1300.

The Pennon was small in size, pointed or swallow-tailed at the fly. It was charged with the badge, or other armorial device, of the bearer, and sometimes richly fringed with gold. (1) It was the ensign of those knights who were not bannerets; and the bearers of it were, therefore, sometimes styled "*pennonciers*." Thus Froissart, "Et devez savoir que tous ces Bannerets et Pennonciers," &c. (2)

GUIDON. — "Every standard and *guydhomme*" (whence, obviously, the etymology) "to have in the chief the cross of St. George" (*Harl. MS.*, 2,258). From Markham we learn that the guidon gave the name—as the bearing of the cornets did—to subalterns of dragoons in the seventeenth century, the former being next in rank under the latter. "The Guydon of the Dragons shall be armed like a private

some spirit. (Edit. Hearne, p. 217.—See note to Warton, *Hist. Poetry*, i. 43.)

"Symon com to the felde, and put up his banere,
The king schewed forth his schelde, his dragon ful austere:
The king said on hie, *Simon ieo vous* defie," &c.

(1) Boutell's *Manual of Heraldry*.

(2) *Chron.*, iii. 84.—The brass of Sir John d'Aubernoun, in the Church of Stoke d'Abernon, Surrey, affords a good example of this symbol of knightly rank.

Gentleman of hargobussiers. And here it is to be noted, that the difference betwixt the Cornet and the Guidon is much: for the Guidon is the first Colours that any Commander of horse can let flie in the field. This Guidon is of dammaske fringed, and may be charged either with the crest of him that is the owner thereof, or with other devise at his pleasure. It is in proportion three foote at the least deepe in the top next the staffe, and upon the staffe, and so extendeth downe narrower and narrower to the bottome, where the ende is sharpe, but with a slit divided into two peaks a foote deepe: the whole Guidon is sixe foote longe, and shoulde be carried upon a lance staffe. If the captaine shall doe a good daies service, or produce from his vertue something worthy advancement, so that he is called to a better command, as to lead Hargobussieres or Cuirassieres, then the General or officer-in-chiefe shall with a knife cut away the two peaks, and then it is made a Cornet, which is longer one way than another; if he doe anything worthily, whereby he is made by the King or Supreame, either Bannaret or Baron, then shall his Coronet be made just square in forme of a Banner, which none may carry in the field on horseback under those degrees." (*Souldiers' Accidence*, 1643, p. 40.) Guidons for dragoons are named in the Royal warrant of 1859: "The guidons of regiments of dragoons to be of crimson silk, the lance to be nine feet long, the flag to be three feet five inches to the end of the slit of the swallow-tail."(1)

(1) Queen's Regulations, 1859.

PENCELS were small streamers; and LANCE-FLAGS require no explanation. There were also GETONS. "Every esquire or gentleman his getoun or standard." (*Harl. MS.*, No. 838.)

GONFANON was a square pennon fixed to the end of a lance. In Italy the name has survived, and the bearer was called *gonfanonier* or *gonfalonnier*. The standard sent by the Pope to William the Conqueror is by Wace named a gonfanon:—

> "Son gonfanon fist traire avant,
> Ke li Pope envéia."—*Rom. de Rou.*

And again:

> "Li Barunz orent gonfanons,
> Li chevaliers orent penons." (l. 11,646.)

Colours of Infantry.

The colours of infantry, in the sixteenth century (when regiments were organised), often called ensigns, were square, and larger than the banners or standards of horse, and were fixed on a spear. Formerly, there was a stand of colours to every company. King Charles I.'s Royal Regiment of Foot-Guards lost eleven of thirteen colours at Edgehill. (Bulstrode, p. 83.)

At the formation of the standing army at the Restoration, twelve stands of colours were given to the newly-raised regiment of Foot-Guards by Royal warrant.(1) As the regiment was enlarged, twelve more were added, preserved to the present day, to

(1) "CHARLES R.—Our Will and pleasure is, and we do hereby require you forthwith to cause to be made and provided 12 Colours or Ensigns for our Regiment of Foot-Guards, of white and red taffeta, of the usual largeness, with stands, heads, and tassells, each of which to have such distinctions of some of our Royal Badges painted in oil, as our trusty and well-beloved servant, Sir Edward

which an addition of six was made by Her present Majesty in 1854.

In the College of Arms there is a curious MS. (M. 16, fol. 976), 36 Hen. VIII., respecting flags, which is transcribed by Grose, ii. 54.

Epochs of Cavalry.

In the history of cavalry we can distinguish three epochs—the period of chain-mail, plate-armour, and gunpowder. When fire-arms became improved, and consequently more in general use, men-at-arms assumed most massive armour to ward off the effects of arquebus and pistol balls, so that they were said to be laden with anvils rather than covered with armour. (1) But gradually they discarded the pieces, one by one, as useless encumbrances; and their horses, no longer in danger of wounds from arrows, were freed from their bards; (2) and at the end of the sixteenth century, light horse and mounted

Walker, Knight, Garter Principal King-at-Arms, shall direct; and for your so doing this shall be your warrant.

"Given under our sign-manual, at our Court at Whitehall, this 13th day of February, 1660.

"To our right trusty and right well-beloved cousin and councillor, Edward, Earl of Sandwich, Master of our Great Wardrobe, or his Deputy. "By His Majesty's command,

"EDWARD NICHOLAS."

(1) De la Nouë, *Discours Politiques et Militaires.* (XVme.)

(2) "The French men-at-arms, in time past, used barded horses for fear of our arrows; now, since archerie is not so much reckoned of, and bardes are but a weak defence against shot, lanciers leaving their bardes, are armed much like to the Albanian *Stradiots.*"* (Sutcliffe's *Practice of Armes*, &c. Lond., 1593.)

* From στρατιώτης.—De Comines makes mention of them (Liv. viii., ch. v.). Louis XII. took 2,000 of them into his service when he marched against the Genoëse. They were dressed like Turks, and were active and hardy light troops. Besides their scimetars, they were armed with a short pike, called an "arzegaye," pointed with iron at both ends. At Therouenne, Hall tells us, "Among the Frenchmen were certain light horsemen called Stradiotes, with shorte styroppes, bever hats, small speres, and swordes like semitaries of Turkay." (*Chron.*, p. 543.)

arquebussiers had supplanted the ponderous men-at-arms. The great military reform of the fourteenth century was the general dismounting of men-at-arms, in order to fight on foot. The English had done so long before. This necessarily entailed an alteration in their equipment, for which see under TACTICS.

Cavalry Charge.

Men-at-arms in charging on horseback advanced in single line, *en haie*, (1) as it was called; at least, we have accounts of the French cavalry doing so. This term was adopted in our armies, and survived until a late period. "By half ranks to the right and left, draw up *in Hay* to the front." (*Military Discipline, or the Art of War*, by Captain John Cruso: Lond., 1689.) The attack in squadrons was of later date, not till the reign of Henri II., in 1547, according to Daniel (*Mil. Fran.*, tom. i., l. v., ch. i.). The French marched in squadrons so dense, that an ancient chronicler observes, "a glove thrown into the middle of them would not fall to the ground." (2) They are represented marching in columns of squadrons, holding aloof their lances, in the bas-relief of the tomb of Louis XII. at St. Denis. (3) Guillaume le Breton, in speaking of the formation of the French army at the battle of Bouvines, says that the Chevalier Guarin ordered his men-at-arms so that one should not be a shield for another; that is, that one knight should not be

(1) *i.e.*, in a row, like a hedge.—"HAIA, *sepes*, à Gall. *haie* and *haye*." (Spelman's *Gloss.*)

(2) Guiart, pt. ii., line 11,494.

(3) *Mil. Fran.*, tom. i., liv. v., ch. i.

behind another, but that each one should have his antagonist before him. [1]

Sixty paces appear to have been the distance at which horses in charging were accustomed to be pressed at full speed. A modern military writer informs us that a charging line commences the trot at about 300 paces from the enemy. [2] Allowance must be made for improvement in the breeds of horses, and for the diminution of the weight they have to carry.

Cavalry and Infantry.

Infantry was often mixed up with cavalry in support of one another. There are abundant instances of this in ancient times. [3] The Earl of Warwick, about to encounter the Welsh in 1295, in order to counteract the enemy's spearmen, placed between every horseman an archer, so that, by their missile weapons, those who held the lances were put to the rout. [4] The King of Navarre gained the battle of Coutras (1587) by mixing up small bodies of arquebussiers with his cavalry. These infantry detachments were composed of men selected for this especial duty, for the success of the manœuvre depended on their steadiness. They were drawn up in four ranks of five files. The front rank lay down,

(1) "Ne scutum miles faciat de milite, sed se quisque suo, fronte opposita, sponte offerat hosti."

(2) Count Bismark on *Cavalry Tactics*, p. 177.

(3) The *velites*, in the Roman armies, rode behind the horsemen, and were trained to dismount with great expertness. They were armed with light javelins, four feet long. When the cavalry came within a weapon's cast of the enemy, the *velites* alighted, formed quickly, advanced in line, and discharged their javelins. (Livy, xxvi. 4.)

(4) Trivet, p. 282

the second knelt on one knee, the third leant over that, and the rear stood up to fire over the heads of the others. They were ordered not to fire until the enemy's cavalry had approached to within twenty paces. In this manner, they succeeded in emptying many of the saddles of the Duke de Joyeuse's men-at-arms, before the latter could get at the infantry with their long lances. In the Thirty Years' War, Gustavus Adolphus generally placed platoons of infantry in the intervals of his cavalry, because the Austrian cavalry exceeded his in numbers, and by that means he strengthened his own.(1) This arrangement was also successfully employed at Ramillies by our great Marlborough. The disadvantage of this admixture of the two arms seems to be that it took away from the cavalry its impulsive power, and that if it were beaten, the infantry had small chance of escape, and was most likely cut to pieces.(2)

Arrangement of Troops.

The usual arrangement of troops for some time after the introduction of fire-arms, and when the ground admitted of it, seems to have been to place arquebusiers always before the lance-men, who, as soon as they fired on the enemy, opened their ranks for the lances to advance. These were supported by cuirassiers; and in the rear there were arquebusiers again.(3)

(1) "He found wonderfully good effects from mixing his musqueteers among the horse, as also from flanking his horse with musqueteers." (Harte's *Gustavus Adolphus*, add. ii., 24, edit. 1807.) But, that "he was the first who intermixed infantry among the horse, as it is commonly thought" (p. 20), is certainly a broad assertion.

(2) Bismark, as before.

(3) Melzo, *Arrangement de la Cavalerie depuis l'usage des Armes-à-feu.*—Mendoza, xi. 242.—Meteren, v. 91.

In the sixteenth century, the appellation of men-at-arms, as referring to the heavy cavalry, was changed to that of spears and lances, and afterwards to cuirassiers and pistoliers. According to a MS. in the Harleian collection (No. 7,364), date apparently about the reign of Elizabeth, a regiment of horse consisted of three troops of cuirassiers and one of harquebussiers. The term "horsemen" we find, but these are generally specified as light horsemen.(1) The demi-lance implied a lancer of a lighter description both as to man and horse. By a statute of 4th and 5th Philip and Mary (A.D. 1558), it would appear that this class of soldiers, which had previously been light horse, became heavy cavalry, supplying the place of men-at-arms.

The Lance.

Towards the end of the sixteenth century, the lance, as a weapon for cavalry, was gradually disappearing from the principal Continental armies. Prince Maurice of Nassau, a great military reformer, and whose camp was the school of Europe, abolished it in the Dutch War of Independence. The intersected character of the ground was unsuited for the movements of lance-men, for the lance—a weapon of attack only—requires to be carried at full speed in a charge of extended lines. It was thought necessary, also, for this service, that the men should be encased in armour; and, consequently, there was a difficulty in procuring horses sufficiently powerful.

(1) The bishop and dean to provide light horsemen, ordered by Queen Elizabeth. (*Desid. Curiosa.*, lib. iii., p. 20.) Two hundred to be sent to Ireland, armed with bows, halberts, &c. (*Ibid.*, lib. iv., p. 40.) Bishop of Chester to provide horsemen, &c. (*Ibid.*, p. 47.)

Maurice's cavalry was chiefly composed of German mercenaries, generally known as Reiters, who were excellent horsemen. It appears from Davila,(1) that the general mode of attack practised by these troops was to advance and fire their pistols at the enemy, and then to retire behind the army to which they were attached. He divided them into two classes—"Cuirassiers, who are heavilie armed, consisting of able and trustie men, and the highest and strongest horses;" and "Harquebussiers or Carabines, who are men lightly armed."(2)

At a sanguinary engagement at Mook (a village on the right bank of the Meuse), between the Spaniards and an army collected by Prince Louis of the Netherlands, brother to William Prince of Orange, in 1574, the former won the day by having mounted lancers in reserve. The prince's cavalry, mostly German carabineers, wheeled after the first discharge, and retired to load their pieces; the Spanish lancers and the German black troopers immediately attacked and routed them, and the patriot army was completely overthrown. (Mendoza, xi. 242.—See Motley's *Dutch Republic*, ii., pt. iv., p. 537.)

The influence of Maurice's example may have affected the French, although the same causes did not

(1) *Hist. of Civill Warres of France* (translated), b. xi. See Battle of Ivry, A.D. 1590.

(2) *Principles of the Art Military; Practised in the Warres of the United Netherlands, under the command of his Highnesse the Prince of Orange, Captaine Generall.* Composed by Capt. Henry Hexham, Quartermaster to the Honourable Colonell Goring. Prynted at Delf, in Holland, for the honour of the *Noble Art Military*, anno 1642.

exist with them; but the movement was apparently contemporaneous, for George Basta, a distinguished officer in the Spanish service under Philip II., says: "L'introduction des cuirasses en France avec un total banissement des lances, a donné occasion de discouvrir quelle armure seroit la meilleure," &c.(1) Davila says that at the battle of Ivry, a thousand Flemish lances, which the King of France knew were in the enemy's army, were a cause of great dread to him. For his (the French) cavalry had laid aside the use of lances, and taken to pistols, in imitation of the Reiters. In order to counteract the shock of the anticipated charge of these lances, he divided his cavalry into several squadrons, as small bodies would more easily get away from their front, and attack the lances on all sides; and to every squadron of horse he joined some bodies of foot.(2) "De toutes les armes dont on se sert à cheval," says Montecuculi, one of the greatest generals of the seventeenth century, "la lance est la meilleure;" and, in another place, "La lance est la reine des armes pour la cavalerie" (*Memoires*, liv. i., ch. ii.); but then he goes on to say, "Mais il faut qu'elle soit bien garnie, et que les lanciers soient vigoureux, armés de pied en cap." And this was the idea that prevailed, that a lancer, to be effective, must be encased in heavy armour. The history of all ages shows that the lance, generally, is the most formidable and the most effective

Battle of Ivry.

(1) *Le Gouvernement de la Cavalrie legère*, liv. iv., ch. vii., fol. (Rouen, 1627.)

(2) *Hist. of Civill Warres*, ut supra.

weapon that cavalry can be armed with; [1] but the moment the lancer pulls up, the impulsive power is stopped, and the force of the weapon is gone. [2] Marshal Saxe re-introduced it in the French army in the first half of the eighteenth century, and called the regiments which were thus armed Hulans, after the Poles, who for a long time made use of lances only in their cavalry. Frederick the Great, for the special purpose of opposing a similar description to the Cossacks of Russia, established, in 1745, spearmen or lancers, and called them Bosniaks. The nineteenth century witnesses the restoration of the lance in all the armies of Europe.

Arms of Cavalry.

"Concerning the offensive arms of the cavalrie," says the Duc de Rohan, "these be of five sorts—namely, the lance, the pistoll, the sword, the carabine, and the musket. The two first are given to the heavie-armed cavalrie, which must have for defensive arms cuiracecask, vambraces, tassets, cuisses, and guard-rein; and (not many years since) some horses have been armed with barbs. Of the two other kinds, they which serve with carabines have the head-piece and cuirace; and, because they fight on horse-back, they must be well mounted; but they which serve with the musquet have no defensive arms. Of these five sorts of offensive arms, there be but three much in use—namely, the pistol, sword, and carabine. The Spaniards only have continued some few companies of lances, which they keep rather for gravitie

(1) Beamish on *Cavalry*, p. 143.
(2) *Cavalry*, by Captain L. E. Nolan, p. 124.

than reason, for the lance doth no effect but by the violence of the career of the horse; and besides, there is but one rank which can make use of it, so that their order must be to fight by single ranks, which cannot resist the squadrons; and if they should fight in squadrons, they would rather be troublesome than serviceable. And for musketiers on horseback, or dragones, they are also in a manner left off, for that in the civil warres they ruined the infantry, every man desiring to have a nag, that so he might be the fitter to rob and pillage. Nevertheless, some well-ordered troops of this kind in an armie are of very great service, either for executions, to gain bad passages, to guard the quarters of horse, or else (on the day of battel) to cause them to dismount as forlorn hopes before the squadrons of cavalrie (1).

Hobilers.

There was another class of horse-troops, of early institution, called Hobilers, who derived their designation from the small horses or "hobbies" which they rode. It is uncertain when they were first organised, but frequent mention is made of them in the statutes of the fourteenth century and upwards. From their light equipment they must have been useful and necessary attendants on armies, the bulk of which was composed of knights and men-at-arms, armed cap-à-pie, who were incapable of practical duties where rapidity was required. Their horses are sometimes mentioned as "equi dis-cooperti," as op-

(1) *A Treatise of Modern War*, by the late Duke of Rohan. Englished by J. C. Camb., 1640.

posed to "equi coopeati." (1) They acted as a corps of vedettes, and one of their most important functions was to carry information on the approach of an enemy. They were the channels of communication by day, as the beacons were by night. "In old times," says Camden, "there were set horsemen at parts, in many places, whom our ancestors called hobelers, who in the day should give notice of the enemies' approach." (*Britannia*, p. 196, edit. 1609.) An old author, Minsheu (*Ductor in Linguas*, London, 1607), gives a further account of them: "Hoblers, Hobellarii, are certain men, that by their tenure are tied to maintaine a little light nagge for the certifying of any invasion made by enemies, or such like perell towards the sea side, as Porchmouth, &c. Of these you shall reade an. 18 Edw. III., stat. 2, cap. 7, and an. xxv., ejusdem, stat. 5, cap. 8, and commeth of the French word Hobér, an old word, which is to move to and fro, to be stirring up and downe." (2)

For these purposes the hoblers would, doubtless, be selected from the residents on the sea-coasts, or the borders, and probably belonged to that class of small proprietors, who, possessing £15 in land, or goods to the value of 48 marks, were bound to provide for the service of the State "a hauberk, sword, knife, and a horse." (3) As they were required for light and active duties, instead of the powerful war-horse, they were allowed to find any sort of horses, except mares:

(1) See *Liber Quotidianus of Edw. I.*, pp. 114-139.
(2) See also Lambard's *Perambulation of Kent*, folio 70.
(3) *Statute of Winchester.* (See before, i. 256.)

"des hobelours, covenablement apparaillez et mountez a chivaux, autres qe jumentz." (1)

A small nimble horse or nag was the best suited for their duties. A great many of these were bred in Ireland, and were held in special estimation. (2) Sir James Ware, who died in 1666, thus makes mention of them: (3) "Among the four-footed beasts of this country, the horses called hobbies are, in the first place, worthy of notice, held in great esteem for their easy amble. John Major observes that they were antiently called *Asturiones*, as having been first imported from the Asturias. From this kind of horse, the Irish light-armed bodies of horse were called Hobillers (as serving on these hobbies), of which Hobillers there were two sorts, one armed, the other unarmed, the pay of the former being 6d. per day, and the other 4d." (4) In some of the quotations hereinafter cited, it will be seen that the Irish contributed a considerable portion of this class of troops.

(1) Rymer, *sub an.* 1324, 18 Edw. II. A writ to the Bishop of Durham. "De hominibus ad arma, hobulariis et peditibus, in Episcopatu Dunolm' eligendis."

(2) Scotland, at that time, doubtless possessed its breeds of hardy mountain nags, as it does to the present day. "Hobler, Cavaliers qui monte un cheval Ecossois, qu'on nommait anciennement *hobin*." (Lacombe and Roquefort's *Dict.*) In Froissart we read that "the light-armed Scots were mounted on little hackneys, which were never tied, nor kept at hard meat, but let go to pasture in the fields and bushes." (Berners, i., cap. xvii., and Buchon, i. 25.)

(3) *History of the Antiquities of Ireland*, translated (the original in Latin), vol. ii., ch. xxii., p. 165.

(4) "Suenius thinks that *hobby* and the Danish and Icelandic *hoppa* have the same origin as *hobble*—viz., the Anglo-Saxon *hoppan*. If so, and it seems probable, the name must have been applied to the horse from its pace." (*Encyc. Metrop. in voce.*)

They were not, however, always called upon to perform this *courier* sort of business at home, but they were regularly arrayed and mustered with the rest of the feudal troops, and accompanied the King on his foreign expeditions, when they were doubtless employed in all duties that would devolve upon light cavalry.

In 1344 the King addressed letters "ad Magnates Hiberniæ" that they should come to him with men-at-arms and hobelars. Maurice Fitz-Thomas, Earl of Desmond, and others, were expected to bring men-at-arms and hobelars.

A writ to the Bishop of Durham commences, "Le Roi a l'evesque de Duresme, salutz. Por ceo qe le Roi de France s'afforce, torcenousement, de nous desheriter, de nostre duche de Gascoine, &c. Vous mandoms . . . . qu' vous facez arraier les gentz d'armes, hobelours et gentz a pie, &c." (Rymer, A.D. 1324.) "Et que gentz d'armes, hobelers, &c., chosen to go in the King's service out of England, shall be at the King's wages from the day they depart out of the counties where they were chosen, till their return."(1) (18 Edw. II., stat. 2, c. 7.)

A statute of Edward III. (anno 1336) orders that the money levied by the "arrayers" of hoblers and archers for the war in Scotland, and still remaining in their hands, be returned.

In 1347 (an. 21 Edw. III.) the King wrote a very urgent appeal to his "beloved and faithful Earl of

(1) "Et des gages des dites gentz, de lour pais, tant, q'ils viegnent a Portesmuth, ordeinerons par temps et le vous ferons a savoir."

Kildare," and others, to despatch men-at-arms, hobilers, and archers, as quickly as possible. This must have been when he required reinforcements for maintaining the siege of Calais, after the battle of Crecy. "Quia Philippus de Valesio adversarius noster Franciæ, totam armatorum potentiam, quam de cunctis partibus habere potest. . . . . Propter quod, ad resistendum ipsius hostili aggressioni magnum numerum hominum ad arma, armatorum, (1) hobelariorum, et sagittariorum ubicumque eos habere poterimus, celeriter habere nos oportet." The earl himself was to supply thirty men-at-arms and forty hobilers; Richard Tuyt, Fulk de la Freyne, Edmund de Burgh and his brother, Francis Feypowe, Walter Trynyers, William Comyn, and John de Verdoun, were each to supply a mentioned number, varying from ten to twenty-five hobilers, the two De Burghs being rated at sixty.

In the muster-roll of the army before Calais, already quoted, we find "500 hobilers, 6d. per diem." Their light equipment—although even that would not to modern ideas be considered light—would preclude them from standing the shock of a charge against assailants, clad in defensive armour from head to foot. An old chronicler says that 100 men-at-arms were superior to 1,000 lightly armed men. (2)

(1) "The armati appear to have been horsemen of a lower grade than the knights and esquires, corresponding with the *serjens d'armes*, or *haubergeons*, of the French levies. They are named in several instruments preserved by Rymer, and the pay there accorded to them, intermediate between that of the esquire and the archer, helps to determine their position." (*Anc. Arm.*, ii., p. 15.)

(2) "Ex his armatis centum, inermes mille lædi potuerunt, . . . habebant dextrarios, id est equos magnos qui inter equos communes

In a summons of Edward III. to the sheriffs of the northern counties in 1332, to select and array archers and hobilers for immediate service in Scotland, on account of disturbances in that country, they were ordered to select from the strongest and most able of the counties.(1) These aforesaid hobilers were to be provided with aketons, bacinets, iron gauntlets, and horse equipments.(2)

Markham gives a description of the equipment of cavalry, as it was before he lived—namely, men-at-arms, lancers, or demi-lancers, and light horse—and then proceeds to describe the cavalry of his own time.(3) "Thus," says he, "for your knowledge, not your example, I have showed you the several compositions and armings of horsemen, according to the ancient times, when the bow and the hargobus had the first place, and the musket and other firy weapons lay obscured. But to come to these our present times, wherein the uttermost strength of the fire is found out and explaned, and to shew you that which you must onely imitate and follow, you shall know that all our horse troopes are reduced to one of these three formes.

Cuirassiers or Pistoliers.

"The first and principal troop of horsemen, for the generality, are now called *curiassiers*, or *pistoliers*; and these men ought to be of the best degree, because

quasi Bucephalus Alexandri inter alios eminebant." (*Chron. Colmariense*, ad an. 1298.)

(1) "De validioribus et potentioribus comitatus ejusdem."

(2) "Aketonis, bacinettis, et cirotecis ferreis, ac equitaturis." (Rymer, 1332, an. 6 Edw. III.)

(3) *The Souldier's Accidence*, p. 34. Lond., 1643.

the meanest in one of these troops is ever by his place a gentleman, and so esteemed.(1) They have for defensive armes, *gorgets*, *curats*, *cutases*, which some call *culets;* others the *guard-de-reine*, because it armeth the hinder parts, from the wast to the saddle-crootch; then *pouldrons*, *vambraces*, a left-hand *gauntlet*, *taces*, *cuisses*, a *caske*, a *sword*, *girdle*, and *hangers*. For offensive armes, they shall have a case of long pistols, fire-locks (if it may be), but *snap-hances*(2) where they are wanting. The barrels of the pistols would be twenty-six inches long, and the bore of thirty-six bullets in the pound; *flask*, *priming-box*, *key*,(3) and *mouldes;*(4) their horses should be stoned, and of the best races, faire trotting, and well-ridden(5) for the wars, that is to say, being able to passe a strong and swift carriere, to stop close, to retire at pleasure, and to turne readily on both hands, either in large rings, or in strait, especially the turne called *terra terra;* the horse shall have saddle, bridle, bit, petrell, crooper, with leathers to fasten his pistols and his necessary sacke of carriage(6), with other necessary things, according to the forme of good horsemanship."

(1) This is remarkable, showing that a private of cuirassiers was considered, from his position, a gentleman. Doubtless, the old feudal pride, which prevented a gentleman from being seen in the field except on horseback, drove him, when the system was altered, to take service in the best corps of cavalry.

(2) As to this term see further, under FIRE-ARMS.

(3) *i.e.*, Spanner (see FIRE-ARMS), which shows that by fire-locks he means wheel-locks.

(4) For casting bullets.

(5) Well-broken.

(6) *i.e.*, havre-sack, or valise.

No. 1.

A.D. 1630. Cruso. "Span your Pistol." Cuirassier at Pistol Exercise.

PLATE I.—"Span your Pistol." Cuirassier at pistol (wheel lock) exercise. (From Cruso's *Military Instructions for Cavalry*, pub. 1632.)

Hargobussiers.

"The second sort (of which many troopes of horse are compounded) are called *hargobussiers*, or *carbines*. These men ought to be the best of the first inferior degree; that is to say, of the best yeomen or best serving-men, having active and nimble bodies, joyned with good spirits, and ripe understandings. These men shall have for defensive armes, gorgets, curats, cutases, pouldrons, vambraces, and a light head-piece, wide-sighted, and the bever to let downe upon barres of iron; for offensive armes he shall have a hargebus of three foote three inches long, and the bore of twenty bullets in the pound, with flaske, priming-boxe, and *moulds;* or, instead of these, cartalages, which will serve either for this or any other piece on horsebacke; also a good sword, and other accoutrements, according to his place. His horse shall be either a faire stoned trotting horse, or a lusty, strong guelding, well-ridden; he shall be armed with a morocco saddle, bridle, bit, petrell, and crooper, with the rest before shewed necessary to his place.

Dragons.

"The last sort of which our horse-troopes are compounded are called *Dragons*, which are a kinde of footmen on horsebacke, and doe now, indeed, succeed the light horsemen, and are of singular use in all the actions of warre. Their armes, defensive, are an open head-piece,(1) with cheeks, and a good

(1) Daniel mentions a curious practice of the French Dragoons, who carried their forage caps on their horses' heads, when the

buffecoat with deep skirts; and for offensive armes, they have a faire dragon, fitted with an iron-worke, to be carryed in a belt of leather, which is buckled over the right shoulder, and under the left arme, having a turnell of iron with a ring, through which the piece runs up and downe; and these dragons are short pieces of sixteen inches the barrell, and full musquet bore, with firelocks or snaphaunces; also a belt, with a flaske pryming-box, key, and bullet-bag, and a good sword. The horse shall be armed with a saddle, bridle, bit, petrell, crooper, with straps for his sack of necessaries; and the horse himself shall be either a lusty gelding, or a nimble stoned horse. These Dragons in their marches are allowed to be eleven in a rank or file, because, when they serve, it is many times on foote, for the maintenance or surprising of strait wayes, bridges, or foords, so that when ten men alight to serve, the eleventh man holdeth their horses, so that to every troope of an hundred, there is an hundred and ten men allowed."

The Dragoon.

The Dragoon has been defined to be "a kind of soldier that serves *indifferently*, either on foot or on horseback,"(1) or, in the words of Père Daniel, "une infanterie à cheval, ou, si l'on veut, ce sont des

men were not using them. "Les Dragons ont une espece de bonnet à queuë, ou plûtôt de chaperon. Ils s'en servent dans les revûës qu'ils font devant le Roy, et devant les Princes, &c. Lorsqu'ils passent devant les Inspecteurs ils attachent leurs chaperons sur la tête de leurs chevaux, ils s'en servent aussi au fourage pour ne pas gâter leurs chapeaux." (*Milice Françoise*, ii., liv. xii., p. 513.)

(1) Todd's *Johnson's Dictionary*.

Cavaliers qui marchent d'ordinaire à cheval, et qui combattent souvent à pied."[1]

Dragoons appear to have been of French origin, and, according to Père Daniel, were introduced by Maréchal de Brissac, in 1554, when in command of the French army in Piedmont. [2] They were raised probably with a view of competing with the German Reiters, who have been mentioned before in p. 19, as using the pistol with so much advantage. The Cavaliere Melzo holds the same opinion. "Mounted arquebusiers," says he, [3] "were invented by the French, in the last war of Piedmont. They bestowed on themselves the name of *dragons*, which name has ever since been attached to them." Dragoons were adapted for all purposes where light troops were required, and especially for seizing upon positions which infantry would be too long in reaching. Instances are not rare where each horseman was ordered to take up a foot soldier, and carry him *en croupe*, in order to effect some special *coup-de-main*. [4]

[1] Tom. ii., liv. xii., p. 353.

[2] *Ibid.*—A claim, somewhat amusing, from its decided tone, is set up for Gustavus Adolphus, as the inventor of Dragoons. The following is given in a note to Harte's *Life*, i. 156:—

"Some give our hero the honour of first introducing *Dragoons* into the military service, though Mansfeldt, as we have observed elsewhere, puts in a sort of claim to this invention. Yet Scheffer's words (*Memoral. Suec. Gent.*, p. 42) are very peremptory in Gustavus's favour. Primus sane fuit ipse qui pedites cum bombardis majoribus imposuit equis, illusque genus eduxit in aciem quod deinde *dragonarios* vocant, ut sic celeritatem equitum et vim peditum ingeniosa hæc mixtura in iisdem consequeretur."

[3] Regole Militari sopra il governo della Cavalleria. A.D. 1611.

[4] An example of this kind occurred in the operations on Bergen, in Hennegau, under the command of Count Louis of Nassau, where

Although many and various explanations have been offered as to the origin of the term "dragoon," there seems no doubt but that it is derived from the weapon with which this class of soldiers was armed. As we have just read, "they (the Dragoons) have, for offensive arms, a faire dragon, and these are short pieces of sixteen inches the barrell," &c.

Lord Orrery, speaking of the Dragoons, says: "They were evidently originally so called from dragon, as they fought in air or on the ground, mounted or on foot. Except in cases of surprise, however, they seldom fired on horseback, and never charged; they were, in fact, infantry with horses, to enable them to make more rapid movements: they were thrown forward to feel the way, skirmishing from behind ditches as they advanced, or covering a retreat in the same fashion; one man held ten horses in the rear, while his comrades, their riders, fought. Their long carbines were called dragons, from the cock being made in that shape." [1]

It is curious that this writer did not find a better reason for their designation from the weapon which they carried, for Dragoons could have presented, even

"500 horsemen took an equal number of infantry behind them." (Count von Bismark on *Cavalry Tactics.*)—At the battle of Ryminik, when the Turks had to contend with Suwarrow and some Austrians, a body of 6,000 janissaries jumped up behind an equal number of Turkish horsemen, and were carried at full speed to occupy a commanding eminence, of which the Austrians were also desirous of taking possession. (Marshal Marmont, *Travels in Turkey*, &c.)—And in the *History of Gustavus Adolphus*, the Elector is stated to have mounted his musqueteers behind his horsemen for the sake of expedition. (Harte, ii., 260.)

[1] *Art of War.*

in their wildest career, but a very faint resemblance to that fabulous monster. Sir James Turner, however, another military author, inclines to the same opinion. "For what they got the denomination of Dragoons," says he, "is not so easy to be told, but because in all languages they are called so, we may suppose they may borrow their name from dragon; because a musketeer on horseback, with his burning match, riding a gallop, as many times he doth, may something resemble that beast, which naturalists call a fiery dragon." [1] There is no doubt but that class of troops derived their name from the weapon with which they were armed. The following note by the translator of Bismark's *Cavalry Tactics*, is confirmatory of this opinion: "A dragon, nearly similar to the weapon described by Markham, forms part of Mr. Meyrick's valuable collection of ancient armour, except in the length of the barrel, which is only eleven inches, instead of sixteen; it entirely corresponds with Markham's description, having a wheel-lock (often called a fire-lock, before the invention of those now used), and a monster's head forming the muzzle. Markham speaks of the year 1645, and from the costume upon the dragon in Dr. Meyrick's collection, it appears to have been about the year 1600, which will account for the difference of size. Dr. Meyrick infers that it was called dragon from the formation of the muzzle, because the culverine (*colubrina*), serpentine, faulcon, falconet, &c., were so denominated, from the heads of these animals being the respective

[1] *Pallas Armata*, A.D. 1683.

ornaments at the mouth." (Beamish on *Cavalry*, p. 303.)

In order that these troops might move expeditiously, and act on foot, it was desirable that they should be as unencumbered as possible. A MS. in the Harleian Library, No. 6,008, entitled, *A Brief Treatise of War, &c.*, by W. T., in the year of our Redemption 1649, has the following passage:—

"As for the Dragoniers, they are to be lightly armed as may be, and therefore they are only to have as followeth: culverins and powder-flasks and swords. I would also have each dragonier constantly to carry, at his girdle, two swyn feathers, or foot pallisados, of four feet length and a half, headed with sharp forked iron heads of six inches length, and a sharp iron foot, to stick into the ground for their defence, whereas they may come to be forced to make resistance against horse."

Swyn Feathers.

These "feathers," or light stakes, are generally stated to have derived their appellation of "swyn," or "swine," as it was sometimes spelt, from the Swedes. They were identical in purpose with those portable *chevaux de Frise* with which archers were ordered to defend themselves, as at Crecy and elsewhere. They must have proved a great encumbrance to the mounted man; but the Dragoons probably used them, when dismounted, as a rest for firing off their heavy pieces.

Sir James Turner, in the work before quoted,(1) thus makes mention of them: "I think I may, in

(1) *Pallas Armata.*

this place, reckon the Swedish feather among the defensive arms, though it doth participate of both defence and offence. It is a stake five or six feet long, and about four fingers thick, with a piece of sharp iron nailed to either end of it, by which it is made fast in the ground, in such a manner that the other end lyeth out, so that it may meet with the breast of a horse, whereby a body of musquetiers is defended, as with a pallisado, against the rude charge of a squadron of horse. Gustavus Adolphus was the first Swedish king that used them," &c.

In the history of the life of this eminent man, who has been styled "the Dragoon King,"(1) no mention is made of these "feathers" as forming any portion of the equipment of a Dragoon. One of his great military reforms was to reduce the weight borne by the infantry and cavalry soldier; he altered the muskets of the cavalry into carbines, and "he ridiculed greatly the forked rests." (Harte, ii. 20.)

There were two sorts of Dragoons, writes Captain Cruso,(2) "Pikemen and musketeers. The former had a thong of leather about the middle of their pikes, for the more commodious carrying them; the latter were provided with a sling, so as to carry their musquets on their backs when not using them, and for the convenience of dismounting," like the French *chasseurs d'Afrique*. The author of the *Milice Françoise* (tom. ii., liv. xii.) is of opinion that mounted pikemen were never used in the French and Spanish armies;

(1) Letter from the Earl of Carlisle to Sir Henry Vane. (State Paper Office, quoted in Harte's *Gust. Adol.*, ii. 69.)

(2) *Military Instructions for the Cavalry*, A.D. 1632.

and Melzo says that the burning-match being found inconvenient, the French and Spanish Dragoons were supplied with wheel-lock arquebuses.

"Dragoons," says Wallhausen, "should be mounted on the smallest horses that can be procured, the price of which also should be small; so, if the rider is obliged to dismount, and to abandon his horse, the loss would not be great. He does not require boots and spurs, for they would prove an hindrance rather than an advantage, when he is acting on foot. When Dragoons are about to attack, after having dismounted, their practice is to throw the bridle over the head of the next horse, so that the horses remain in files as upon the march, and are not able to escape. Some of the riders are appointed to watch by them."(1)

Lord Orrery says, every tenth man was to hold the horses of those who had dismounted to act on foot;(2) or, as Markham says, p. 30 *ante*, "to every troop of one hundred, there is one hundred and ten men allowed."

Daniel gives a more particular account of the mode of linking Dragoons' horses in the French service: "Quand les Dragons mettent pied à terre pour attaquer un poste, et que pour cela ils quittent leurs chevaux, ils leur mettent une petite longe (strap) attachée au bas de la testiere (head-piece) de la bride du côté du montoir: au bout de cette longe, il y a un

(1) *Instructions des Principles et Fondements de la Cavallerie*, par Jean Jacques de Wallhausen. Frankfort, 1616.

(2) *Art of War*, p. 34.

petit fer pour servir de crochet, qu'ils passent à un anneau; en sorte que le cheval est attaché à celui qui est à sa droite, et ainsi de l'un à l'autre. Outre cela on laisse un Dragon à la droite, et à la gauche de chaque rang, et un Officier subalterne par Regiment. On prend ordinairement le dernier, parceque cette garde est regardée comme une garde de fatigue."(1) The disadvantage of this operation would appear to be, as Captain Nolan observes,(2) that "should a few of the enemy's light horsemen make a dash at the led horses, the Dragoons would run a good chance of becoming *only* infantry for the remainder of the campaign."

We may imagine how encumbered the poor "Dragooner" must have been, especially if ordered to fire on horseback. His unwieldy weapon in the right hand, his bridle held in the left, with his lighted match between his fingers, his powder in the collar of bandileers, and perhaps, in addition, the two long wooden stakes suspended from his waist. They were also recommended to be provided with axes and spades!

Lord Orrery, in the above-named treatise, proposes that "every regiment of horse should consist of seven troops, whereof six should be heavily armed with back, breast, and pot; and for offence should have swords or tucks, with pistols and carbines; and the seventh troop should be of firelocks, or dragoons."

Our English ancestors do not appear to have kept

(1) *Mil. Franç.*, ii., liv. xii., p. 514.
(2) *Cavalry, its History and Tactics;* p. 66.

pace with the progress made in the military art on the Continent in the sixteenth century. Years of peace were gradually destroying the former superiority which they had possessed, and which was admitted.(1) De Comines,(2) speaking of the English, while he admits the good material of which they were made, says they were quite unpractised in the use of arms.

Cavalry never was the pre-eminent arm of the English service, except, perhaps, in the time of Charles I.'s Civil War. Many countries had their *specialités;* the German Reiters were celebrated; the wild Estradiots, and, perhaps the best of all, the Turkish horsemen, the Spanish infantry—rivalling the Roman legions in their best days—and the sturdy Swiss foot. But the long-bow was *the* weapon of England; and the great victories of our Edwards and Henrys, as has been already observed, were infantry battles, gained by the superiority of the English archer.

In the fifteenth century, the Wars of the Roses had a good deal to do with this national backwardness. They were contentions of one set of countrymen against the other, and brought with them no improvements; and while they engrossed the attention of the English at home, left them in ignorance of what was doing abroad. Military reform, and

(1) "Il faut reconnoitre que les habitants de la Grande-Bretagne *avaient* une meilleure tactique et une discipline plus sévère que la nôtre." (*Études sur l'Artillerie,*" i. 32.)

(2) "Il n'est rien plus sot, ni plus mal adroit, quant ils passent premierèment; mais en bien peu d'espace, ils sont très-bonne gens de guerre, sages et hardies." (Liv. iv., c. v.)

the re-modelling of armies, have almost invariably formed the sequel of some great foreign war.

It is remarkable how readily nations adapt themselves to circumstances, and, while retaining their idiosyncrasy, acquire fresh habits and new modes of life. A peaceful ruler produces a peaceful population, and so forth. During the pacific reign of James I., for instance, the English, no longer roused to deeds of arms, lost their fondness for warlike exercises. We may point to the volunteer movement at the present time, as a resuscitation of the military spirit, long dormant in the lull of a continued prospect of peace.

The love of field sports seems always to have been a characteristic of Englishmen. Subsequently, the large fortunes of the nobility enabled them to improve the breed of horses, and, ultimately, to obtain the finest race of animals in the world. The English may now pride themselves on their riding, and on the national taste for athletic amusements; but, if we are to believe the statement of an officer of rank, addressed to Charles I., on the state of the defences of the kingdom, there was a considerable deterioration in the manly habits of the people. This letter, which is quoted below, will be found in the Harleian Misc., iv., p. 272, and adverts to some matters which are not altogether out of date.

"*Colonel Sir Edward Harwood's Advice to King Charles. London.* 1642.

"France being so near us, and so full of soldiers, both horse and foot, if it once come to be able to

equal England at sea, by sudden and quiet preparations, stealing opportunities, may overtop England at sea, and then transport such an army of horse and foot as we might justly be afraid of. For old soldiers, both horse and foot, France abounds in: and the French have a virtue proper to them, that not a gentleman thinks himself anything until he has seen the wars, and learned at least good and perfect use of his arms: and naturally they are all good horsemen. Whereas in England, unless those which have been soldiers, few are there can use their arms; and of those which have been soldiers, it may be, not all can well use their arms, especially the musquet, which is of most offence; which our natures are not naturally so prompt to learn the use of, as the French are. And for horse, this kingdom is so deficient, that it is a question whether or not the whole kingdom could make 2,000 good horse that might equal 2,000 French."

He then recommends that the number of trained men should be increased, or rather that the male population, from eighteen to thirty-five or forty, should be armed and exercised under the superintendence of old soldiers procured from the Low Countries, and that prizes be given for the best marksmen, as used to be previously for shooting with the long-bow, and that days be set apart for exercise, and that captains of train-bands be required to pass the seas to learn their duty.

As to horses, he urges that care should be taken

to promote a stronger breed throughout the kingdom. That his Majesty's band of pensioners should be converted into cuirassiers, and that none should be appointed except those who were known to be horsemen, and could use a pistol on horseback; and that the rest of the mounted train-bands should be appointed as harquebusiers. "There is not a French gentleman," he says, "that so soon as he begins to write *man*, but learns to ride, to use his arms on foot and horseback, and learn the trade of a soldier, though he never intend to make it his profession."

Horses were evidently scarce in England in that time; and there certainly could not be many old soldiers, when there had been no wars since Queen Elizabeth's, with the exception of the trifling attempt in the Palatinate. The train-bands were called out periodically for exercise, and their performances in the North corroborate the assertion that there were "few that could use their arms;" but the English nobility and gentry of that time were certainly more devoted to field sports than to anything else, and, as they travelled much on the Continent, acquired a knowledge of fencing, and such other arts in which foreigners have generally excelled. In this lay the element that gave the Royalists at first such undoubted superiority over the Parliamentary levies.

But although the British service afforded no scope for military ardour, great numbers of our countrymen enlisted in foreign armies. The fame of Maurice of Orange attracted numerous volunteers. Gustavus Adolphus had, at one time, 10,000 English

and Scotch in his army, on whose stability he felt he could always rely; of the two, he seems to have preferred the Scotch, believing them to be the hardiest; and the names of Leslie, Lindsey, Donald Mackay, Lord Reay, Sir John Hepburn, and Monro, are found among their distinguished commanders.(1) The letter of the colonel, just quoted, was addressed to the King on the eve of the breaking out of the Civil War, during which a large proportion of the population of England was destined to acquire a fatal aptitude for the use of arms. It was then that our cavalry began to distinguish itself, and became the arbiter of victory. After its defection in the Covenanters' war, it is reassuring to find that there was no physical degeneration, and that its inefficiency was attributable to the fault of the commanders and to the dearth of discipline, not to the raw material.

Prince Rupert was a brilliant cavalry leader, and the first that showed what English horsemen were capable of. How different their exploits under him to Lord Holland's dastardly troops! Had the Prince's coolness and judgment equalled his energy and impetuosity, the King's fate might have been a different one. A mass of MS. correspondence belonging to this interesting period is preserved in the British Museum. It is interesting to behold the actual MS. orders issued by the fiery Prince, now

(1) Harte, i., pp. 210, 225.—In the campaign of 1632, Gustavus had six British generals, thirty ditto colonels, and fifty-one lieutenant-colonels. (See *Monro's List.*) There was also an Irish regiment in the Imperial service, commanded by Lord Walter Butler. See his gallant conduct at the siege of Francfort. (*Ibid.*, pp. 311, 315.)

preserved in the British Museum, as before stated in vol. i., p. 263.

Improvements in Cavalry.

Cavalry, in this century, was undergoing great changes, and was approaching a state of high organisation. Maurice of Orange had been the great reformer, and the cavalry employed by him in the Netherlands became the model for that of other countries. Immediately succeeding him, came Gustavus Adolphus, who probably made greater progress in the art of war than any other commander before or since. The career of victory that he pursued was the result of his system; and, as far as the cavalry was concerned, with inferior numbers, mounted on small Swedish horses, he was enabled to beat the formidable Austrian cavalry, most of them cuirassiers completely cased in iron, and riding large and powerful chargers. A favourite maxim of his was that his soldiers should not fire until they could see their own image in the pupil of their enemy's eye, meaning thereby that they should reserve their fire until they could make sure of their object; and his advice to his cavalry on one occasion was; that they should advance briskly up to the enemy without firing, and cut obliquely with their sabres at the noses, heads, and necks of the enemy's horses, which, he thought, would have the effect of dismounting the cumbrous German cuirassiers, who would be useless on foot.(1)

Rupert appears to have adopted some of the measures taught by the Royal Swede, and we find

(1) Harte, ii., pp. 18—20.

that, at the battle of Edgehill, the Prince "gave positive orders to his horse to march as closely as possible, keeping their ranks with sword in hand, to receive the enemy's shot, without firing either carbine or pistol, till they broke in amongst the enemy, and then to make use of their fire-arms as need should require; which order," says Bulstrode, p. 81, "was punctually observed." The same author tells us, on the same occasion, "that the whole Royal army was drawn up in a body, the horse three deep on each wing; and the foot in the centre, six deep."

A somewhat remarkable cavalry encounter is narrated by Clarendon. Prince Maurice came upon a greatly superior number of the enemy, and not liking to retire, charged them at the head of his regiment of cavalry; but the enemy's front was about double his, and that portion which was beyond the Prince's line wheeled and charged his rear. The Earl of Carnarvon, with his regiment of cavalry, charged them again in the rear; "and so they were mingled pell-mell, one amongst the other, and so they fought till dark, and routed the enemy." (1)

It has already been said that the Royalist cavalry was predominant at first; as Clarendon expresses it, the King's horse felt "a natural contempt" for the enemy, which, in all skirmishes and charges, had hitherto been beaten by them: (2) but there was a great man watching the course of events, and examining where the strength and weakness of the Cavaliers

(1) *Hist.*, b. vii., p. 87, edit. 1849.
(2) *Ibid.*, an. 1643.

lay. He resolved to overmatch them; and, when his system came into operation, he swept the enemy off the field.

Cavalry Regiments.

The establishment of cavalry regiments of this date was very similar to what it is at the present time. They consisted of a lieutenant-colonel, a sergeant-major (answering to our major), and each troop of a captain, a lieutenant, a cornet (so called from the standard which he carried, as an ensign was from the colours in the infantry), [1] and a quartermaster and surgeon, corporals (no mention of sergeants appears in the cavalry), private men, and trumpeters. [2] The field-officers had generally their own troops, for which they received pay in addition to that of their superior rank. In some instances, the commanding officer was allowed so many "dead pays," *i.e.*, the privilege of drawing allowances for more men than were on the muster-roll. The strength of troops varied. Bulstrode was in "the Earl of Northampton's own troop, which consisted of 100 gentlemen of quality." He was then transferred to the Prince of Wales's regiment of horse, which consisted of six troops; the Prince's own troop being commanded by Sir Thomas Byron, who was colonel of the regiment

[1] "We have taken five colours and cornetts." (Ellis's *Letters*, 2 Ser., p. 303.)

[2] Dragoons were treated as infantry, and had drums, but no colours.

"*The Pay of a Troop of Horse, viz.:—*

"A captain, per diem, 8s.; a lieutenant, 5s.; a cornet, 4s.; three corporals at 2s. each; two trumpeters, one quartermaster, a chirurgeon, and eighty horsemen, at 2s. 6d. each per diem." (The last item must include the allowance for the keep of the troop-horses.)

(p. 78). There were many troops which had been raised separately, and which were not regimented.

General Foy, in his *History of the Peninsular War*, remarks, that next to the eminent qualifications requisite in a commander-in-chief, comes the general of cavalry in importance. He thus traces the portrait of a cavalry officer:—Daring courage, the *coup-d'œil* of an eagle, the vigour of manhood, the agility and strength of a centaur, and, above all, that precious gift which nothing can replace—bravery. (1)

In some remarks on cavalry, by Baron d'Azémar, the author (a cavalry officer, consequently not altogether an unprejudiced writer) quotes the words attributed to Napoleon I., "Si en 1813, j'avais eu de la cavalerie, j'aurais reconquis l'Europe." In fact, says the Baron, "cavalry is indispensable for the defence of States. The future of empires is wrapped up in the future of cavalry!" (2)

(1) Vol. i., p. 80. (Translation.)

(2) *Avenir de la Cavalerie*, by Baron d'Azémar, Colonel of the 6th Regiment of Imperial Lancers. Paris, 1861.

CHAPTER II.

IMPORTANCE OF INFANTRY — ITS DERIVATION — SUPERIORITY OF THE ENGLISH YEOMAN—SWISS INFANTRY—ARCHERS AND BILLMEN—PIKES —PROPORTIONS OF FIRE-ARMS—EXERCISE OF THE PIKE—PRICE OF PIKES — CLOTHING OF MAN — HALBERTS—HEADSMAN'S AXE — PARTISAN — POLE-AXE — GLAIVE — SPONTON — PAVOIS — HEAVY AND LIGHT SHIELDS — TARGETS AND ROUNDELS — SCOTTISH HIGHLANDERS' SHIELDS.

Infantry.

INFANTRY is pre-eminently the moral power of armies. It forms the main body, being, in modern warfare, always numerically superior; the great work of the battle is performed by it. The use of cavalry and artillery is often limited by the nature of the ground; they are also dependent upon animal force, whereas infantry is an independent arm, and can be made available anywhere. Therefore the success of a campaign is generally considered to depend upon this latter, and since the introduction of the long-range rifle, it may safely be predicted that infantry will be called upon to play a more conspicuous part than it has even yet done. "Infanterie," says Montecuculi, "est comme la base et le soutien de l'armée, soit pour les batailles, soit pour les siéges, et c'est avec elle que les Romains et les Suisses ont fait des choses si admirables. L'infanterie doit donc faire la principale force, et la plus grande partie de l'armée." (1)

(1) *Mémoires*, liv. ii., ch. ii., p. 242.

In classic times the importance of infantry was recognised. The Greeks and Romans gained their victories with it; and Tacitus, speaking of the armies of the Germans, says, "in pedite robur"—their strength lay in their infantry. But when Rome was ravaged by the Northmen, and barbarism for a while over-rode civilisation, infantry fell into disrepute, and cavalry became the prominent force. The existence of a numerous cavalry has been pronounced to be the most certain evidence of decline in the military character of a State. (1) That, however, is a question which must depend very much on the nature of the country. The institution of the feudal system still further degraded the foot-soldier, the mounted man, both in a social and military view, being raised so far above the comparatively unprotected man on foot. The man-at-arms required assistants, and therefore he was always attended by a retinue, according to his rank; and so the infantry became to be regarded as merely the adjunct of the equestrian order. This leads us naturally to the derivation of the term "infantry." If we accept the Latin *infans* and the Italian *fante,* or *infante,* as the roots, they would convey the early estimation of the quality of foot-soldiers. Skinner says: (2) "*Fante* pedes et famulus; quia scilicet olim pedites equitum famuli vel pedis sequi fuerunt. *Fante* autem a Lat. *infans,* manifeste ortum ducit. Et nos *Boy,* non tantum pro puero sed et pro famulo, secundario sensu usur-

(1) Folard, *Hist. de Polybe.*

(2) *Etymologicon Linguæ Anglicanæ, voce* "Infantry."

pamus." (1) In further explanation, he cites the word *Lansquenet*, which he says is "pedes, miles, gregarius, a *Lance*, (2) lancea, et *knecht*, servus: olim enim pedites equitum lanceariorum quasi servi erunt; et quilibet eques quatuor vel quinque pedites, tanquam famulos circumduxit. Exercitus autem numero equitum, non peditum censebantur." (3)

From this it would appear that *fanti* were originally hired servants, and when massed together became fanteria. So that the name infantry was given to them when they were considered as *lads* attending the army; and the designation has continued, though their condition is altered. The French term *fantassin* is evidently a member of the same family. Another derivation has been assigned, namely, from the Celtic *fan*, a march; (4) and, lastly, the word has frequently been imputed to have originated from a certain *Infanta* of Spain, who marched at the head of a body of Spaniards on foot,

(1) In the same sense as the Greek *παῖς*, the Latin *puer*, and the French *garçon*.

(2) This is a mistake, Lansquenet being derived from *Lands-knecht*, a country-man; and has nothing to do with a lance.

(3) "Though the word is immediately derived from the Italian *Infanteria*, it is previously of German origin. We find still, in the dialect of Lower Saxony, *Fant* and *Vent*, signifying a young unmarried man, and in a more extended sense meaning a servant, a soldier on foot." (*Popular Encyclop.*)

(4) Infanterie du Celt. *fan*, marche, d'où fantain ou fantais, marcheur; ou de l'Ital. *fante*, valet." (Bescherelle, *Dict. Natle.*—Also note to *Hist. de l'Armée Française*, Paris, 1847.)—"Though the word is immediately derived from the Italian *infanteria*, it is primarily of German origin. We find still in the dialect of Lower Saxony, *Fant* and *Vent*, signifying a young unmarried man, and, in a more extended meaning, a servant, a soldier on foot." (*Pop. Encycl.*)

and defeated the Moors. This assertion, however, appears without either authority or probability.

The fact of men-at-arms being obliged to dismount and serve on foot, showed the importance of an organised infantry. The victory of Crecy proved the case; and high chivalry, which arrogated to itself all military glory, was taught a lesson of humiliation.(1) Innovations are naturally distasteful to those who feel their superiority may thereby be endangered; and the foot-soldier rising in importance, was likely to be regarded with a jealous eye. "Tuez toute cette ribaudaille, car ils nous empêchent la voie sans raison," were the words of Philip of Valois at Crecy, and the sentiment of many a belted knight.

By the 5th Edward II., "*archers and all manner of ribald persons*, who are in the castles and elsewhere, were to be discharged from wages of the King, except in war;"(2) and in the statutes and ordinances for the government of the armies of Richard II. and Henry V., the penalty in some cases is, "if he be a man of armys or archer on horseback," "to lose his best horse;" and "if he be an *archer on fote* or *other boye or page*, he shall have the right ear cut off." (3)

(1) "Une nouvelle tactique, sortait de l'état nouveau de la société; Edw. III. avait employé les fantassins faute de cavalerie . . . . la bataille de Crecy reveille un secret dont personne ne se doutait, l'impuissance militaire de ce monde féodal, qui s'etait cru le seul monde militaire." (Michelet, *Hist. de France.*)

(2) Cotton. Lib., *Custumarum*, &c., 5 Edw. II.—*Munim. Gildhallæ*, London, pt. ii., 684.

(3) See App. viii., p. 33, Nicolas's *Agincourt*.

A man encased in a suit of costly armour, mounted on an armed horse, had an obvious advantage over one not similarly protected; and in that lay the great success of chivalry. We often read of a few knights destroying a crowd of assailants on foot. The social position of the mounted man, moreover, as a rule, was superior to that of the footman; and, therefore, one can understand the disparity in the treatment of the two. But that disparity did not exist in England in the Middle Ages to the same extent as elsewhere. Here the commonalty enjoyed a certain amount of consideration. They had gone hand-in-hand with the barons, and assisted at Magna Charta, and so were not to be despised. Decently nourished, and moderately worked, with an aptitude for manly exercises, the populace was sturdy and muscular. Archery was a national pastime, and the long-bow, which required a strong arm to render it effective, became the characteristic weapon of the English. Our infantry, in the fourteenth century, was almost entirely composed of archers; their dexterity exceeded that of any foreigners. Our Edwards and Henrys won their great battles by them, (1) and were enabled to dispense with foreign mercenaries and to employ their own subjects. It became an honour to command such men, and they were highly remunerated for their services.

In France, nobility was rampant, and arrogated

(1) "Les Anglois gagnèrent la bataille d'Azincourt par ceux-là mêmes qui la devoient perdre par le sentiment des nôtres, c'est-à-dire des archers." (*Chron. de S. Denis*, liv. xxxv., ch. vi.)

to itself the profession of arms. At Crecy, 15,000 Genoese cross-bowmen were in the French service; but there, as well as at Poitiers and Agincourt, the confidence of the French was placed in their overwhelming force of cavalry. Until the fifteenth century, the native French infantry was composed of the dregs of the populace, "leavings of the gallows, escaped convicts, and men who had been branded for their crimes." (1) If they fought well, the jealousy of the men-at-arms was aroused, and the success of foot-troops was regarded as contrary to the honour of chivalry. At Courtray, in 1302, when the French infantry were gaining the day, the men-at-arms dashed to the front, through the ranks of the cross-bowmen and spearmen, and broke them. "Nos gens de pié savancent si auront la victoire et nous ny aurons point d'onneur." (2)

Swiss Infantry.

The Swiss had taught a lesson at Morgarten in 1315, namely, that disciplined infantry could be made to resist the charge of cavalry, and even be superior to it. The serried ranks of these sturdy mountaineers recall the days of the old Greek phalanx. The nature of their country and stinted resources, compelled them to place their reliance on foot-soldiers; whilst the force against which they were continually struggling in defence of their

(1) "La plûpart gens de sac et de corde, meschans garnimens eschapez de la justice, et sur tout force marquez de la fleur-de-lys sur l'espaule." (Brantôme, *Discours des Couronnels*, tom. iv., dis. 89.)

(2) *Les Chroniques Abrégées*, MS. Bibliothèque Royale. Cited in *Études sur l'Artillerie*, i. 15.

liberties was cavalry—the mail-clad reitters of the house of Austria. To enable them to withstand the shock of their charge, the Swiss were provided with helmets and breastplates, and armed with long lances and heavy swords. They were trained to act shoulder to shoulder, in masses, ranged in deep array, so as to present on every side a formidable front to the enemy.(1) Horsemen could make no impression on such a body. It repulsed the Austrians in every attempt to conquer the country. The consequence was, that the Swiss have retained their independence to the present time, and their country has ever since continued to be the great mart for mercenary troops. They were in such request, that they were able to dictate their own terms; "*point d'argent, point de Suisse*," was as true of them then as now. Another important result was, that the repeated proofs of the decisive effects of infantry restored that service to its proper position in public estimation, and gradually re-established its superior importance in the operations of war; other nations set about the re-organisation of their armies on the same model, and men of quality began to think it no disparagement to take service in the infantry. The Spaniards appear to have been the first to improve upon the Swiss method, by mixing a proportion of musketeers in their battalions, and this led to the gradual withdrawal of bowmen from armies.

English Archers.

At the time when the sound of guns was being heard for the first time in the battle-field, the

(1) Müller, *Histoire des Suisses*, vol. ii., ch. iii.

English archers were at the zenith of their fame. Warfare was remunerative to the private soldier, so that there was no difficulty in recruiting our armies; and the "ablest men"(1) could be selected. When the long-bow ceased to be their prominent weapon, glory departed from the English infantry. Fire-arms, at length, were found to produce greater effects than archery; and so the long-bow was reluctantly driven from the field. The part of an archer on active service was that of an irregular skirmisher, for which little more than such training as he was quite willing to bestow upon himself was required; but firearm-men and pikemen required a careful and tedious training, and the meeting together in bodies under instructors. Other countries saw the advantage gained by skilled troops on permanent footing; but in England there was no change in the mode of raising armies: and the labourer, mechanic, and shopkeeper had to leave his professional employment, and do duty as a soldier, when called upon. Fortunately, England, from the middle of the sixteenth to the middle of the seventeenth century, was tolerably free from attacks of foreign foes; otherwise, the raw militia levies, however excellent their spirit or vigorous their *physique*, would have been found immeasurably inferior to such veterans as the national infantry of Spain or the mercenary armies of Germany could produce; and it was not till the master mind of Cromwell developed the resources of this country, that the English infantry regained that

(1) Rymer, *passim*.

fame which it had formerly acquired, and which it has ever since retained.

Bowmen and Billmen.

Our infantry, previous to the general introduction of fire-arms, may be divided into two principal classes —archers and billmen: which last comprehends all those who are enumerated in the old statutes of arms as serving with "bills, gisarms, knives, and other small arms."(1) They were defensively armed with such protections as they could procure: most of them wore iron skull-caps or basinets, and short leathern or linen doublets, stuffed with cotton or wool, called aketons;(2) and often a long loose garment, called a jack,(3) resembling a smockfrock; and sometimes they carried a roundel, or light round shield.(4) Such men as happened to be ill provided were returned as "*Naked Foot*,"(5) and received less pay in consequence.(6)

Their weapons of offence were of all sorts,

> "Tels armes portent com ils trovent."
> (*Rom. de Rou*, l. 12,840.)

and comprised lances or pikes, swords, daggers, bills

(1) "Falces, gisarmas," &c. (Statute of Winchester.)

(2) "Pedites cum aketon et bacinet." Wardrobe Account, 15 Edw. II., A.D. 1322.

(3) From which jacket:

> "Un grand vilain, Jacque d'Anglois
> Qui luy pendoit jusqu'aux genous."
>
> (Coquillart, quoted by Daniel, *Mil. Fran.*, i., liv. iv., ch. iv.)

(4) See one figured in Daniel, i., liv. vi., ch. i.

(5) "Pro vadiis 100 peditum nudorum, de comitatu Northampt.," &c. (Wardrobe Account, *ut supra.*)

(6) According to St. Palaye (*Ancienne Chevalerie*, i. 329, edit. 1781), "*nudus miles*" was the designation for an esquire, to distinguish him from the fully-armed knight.

of all kinds, mallets, forks;[1] and the poorest brought the simplest of all weapons—a sling and a stone.

The Sling.

The effect of this last simple weapon was not to be despised. Without alluding to the great illustration in sacred history, in comparatively modern times we often learn its power of destruction. It has often been assigned to the ancient Britons; but there appears to be no adequate foundation for this supposition. The Saxons, however, were celebrated for their skill in the use of this weapon; and the Anglo-Norman army seems always to have included an organised body of slingers. There is evidence of its employment in war as late as the fourteenth century. At the battle of Najara (1367), Froissart relates that the Spaniards and the Castillians "avoient fondes dont ils jetoient pierres et effondroient heaumes et bassinets" (i. 535); and again, in 1386, we read of more than 30,000 foot, "jetant de pierres a frondes." The staff-sling is mentioned in the romances of this century, in the romance of *Richard Cœur-de-Lion*, p. 176, in Chaucer's *Sir Thopas* (vol. ii., p. 316); and at the commencement of the fifteenth

[1] "Some made a *mall* of massey lead,
With iron all about did bind;
Some made strong helmets for the head,
And some their grisly *gisarings* grind.

"Some made their *battle-axes* bright,
Some from their *bills* did rub the dust,
Some made the *pikes* and *lances* bright,
Some *pitchforks* for to give and thrust."
(*Anc. Ballad of Flodden Field.*)

century, in a poem called *Knyghthood and Batayle*, quoted by Strutt in his *Sports and Pastimes* (b. ii., p. 74):—

> "Use eek the cast of stone, with slynge or honde :
> It falleth ofte, yf other shot there none is;
> Men harneysed in steel may not withstonde,
> The multitude and mighty cast of stonys;
> And stonys in effecte, are every where,
> And slynges are not noyous for to beare."

The Pike.

When gunpowder was producing its effect on the constitution of armies, and infantry fought more in serried masses, and less in hand-to-hand combats and irregular skirmishes, we hear more of the long pike for those who were not bearers of fire-arms; and it retained its position until eventually superseded by the bayonet.

"Let us pass further to speak of the pike," says an author of the sixteenth century,(1) "of which, although the Switzers have not been the inventors, yet have they at the least brought it again into use." It is recorded of them, that, in an engagement at Arbebo, near Bellinzona, in 1422, the blades of the halberds were inconvenient, likely to catch hold of their own clothes: but a long weapon was required to check a charge of cavalry; so they discarded almost entirely the halberd, and armed themselves with pikes eighteen feet long.(2) It is so simple in construction, and so easily procurable—a sharpened stake, or a pole with an iron or steel spike—that they

(1) *Instructions for the Wars;* by W. de Bellay. Translated by Paul Ive. London, 1587.

(2) Müller, *Hist. des Suisses*, iv., ch. vi., p. 543.

are about the first arms that men adopt who have not access to others.(1)

Pikemen have already been mentioned in this work. At the battle of Musselburgh, for instance, Wallace formed his pikemen into circular bodies. Froissart, of course, has often to make mention of them: "Grand nombre d'arbalétriers, *picquenaires*, et gens d'armes;" and in another place, "Ils avoient fait une ambûche de plus de cent compagnons tous *piquenaires*," &c. As pikemen had to resist the attack of mounted lancers, they were to be protected by armour; and, consequently, strong men had to be selected for the place. Markham(2) recommends that "the strong, tall, and best persons be put to pikes; the squarest and broadest will be fit to carry musquets; and the least and nimblest may be turned to the harquebush. All pikemen shall have good combe-caps,(3) well lined with quilted caps; curaces for their bodies, being high pike-proof; gorgets for their necks; tassets for their thighs; but without pouldrons or vambraces, because they are but cumbersome. All this armour is to be rather of russet, sanguine, or black colour, than white or mill'd, for it will keep the longer from rust."

Sutcliffe held also a high opinion of pikes, as

(1) There is a collection of pikes in the museum of the Royal United Service Institution, made use of by the Welsh Chartists and Irish rebels. The pike has been described somewhere as the Tipperary weapon "that never missed fire."

(2) The *Souldier's Accidence*, p. i.

(3) The iron ridge along the top of the helmet, at the junction of the hemispheres, resembling a cock's comb.

"the only defence of footmen against horsemen." (1) He is, however, opposed to employing them in great numbers, because, if once their ranks were broken, they had little power to defend themselves, and the first thing they would do, would be to throw away their pikes and take to their swords. Moreover, from their heavy armour, they are prevented from following in pursuit, and cannot stand against shot or targets.

Among French troops the pike was not in favour. Daniel is of opinion that they are not mentioned in the histories of France previous to the reign of Louis XI. (A.D. 1461). "Nos François ont eu toujours de la peine à s'accommoder de la pique." He quotes M. de la Nouë, who says, "that in his time—that is, during the reign of Charles IX. and Henri III.," a period ranging from 1560 to 1589—"it was difficult to find soldiers who would be pikemen, inasmuch as they would no longer wear the corselet, which was the defensive armour proper for pikemen." (2) We may infer from this that the French were not physically as strong as the well-fed English yeomen. This opinion is confirmed in a tract among the Birch MSS. in the Brit. Mus., No. 4,122, written by Sir William Waad, Clerk of the Council under Queen Elizabeth, and afterwards Lieutenant of the Tower. (3) The old knight was a great advocate for the pike, which he designated "the only body, strength, and

(1) *Practice, Proceedings, and Lawes of Armes*, p. 185. Lond., 1593.

(2) *Mil. Franç.*, i., liv. vi., ch. iv.

(3) "Concerning the Defence of the Kingdom against Invasions." Printed in *Archæologia*, xiii. 169.

bulwark of the field," and lamented that it was going out of use, in consequence of imitating the French plan of fire-arms, whereby we had so wonderfully weakened ourselves, that it was high time they should be restored. Then he goes on to say that, "being in the Low Countries, and in the camp, when these great armies were last assembled, and perusing in every severall regiment the sorting and division of weapons, as well as their order and discipline, there were two nations (the French king's one) that had not between them both a hundred pikes; whereof I much marvelling, and desiring greatly to know the cause that had moved them to leave the pike, which in my conceit I always judged to be the strength of the field; happening afterwards in the company of certain French captains, some of them antient in years, I demanded the reason that had moved them to give over that defensible weapon the pike, and to betake them altogether to shot? Not to any disliking, or other cause, said they, but for that *we have not such personable bodies as you Englishmen have*, to bear them: neither have we them at that commandment as you have; but are forced to hire other nations to supply our insufficiency; for of ourselves we cannot say we can make a complete body."

Horse and Foot combined.

It has been before observed that bodies of horse and foot were purposely often mixed up together. Pikemen were consequently trained to act in concert with cavalry. In a MS. in the Bibliothèque du Roi, written about the year 1473, and containing instructions for a corps of gens d'armes raised by Charles

the Bold, Duke of Burgundy, in imitation of those of France, it is stated that the mounted archers are to march briskly to the front, to shoot without breaking their ranks; and the pikemen are to move in close order and in allignment of the archers, and, on a signal, to drop on one knee, keeping their pikes lowered to the height of a saddle-bow, in order that the archers may shoot over them, as over a wall; and that the pikemen, in case they see disorder in the enemy's ranks, may be ready to take immediate advantage of it, and also be prepared to form themselves into squares or circles, to sustain the charge of the enemy's horse, enclosing within their centre the pages and horses of the archers.

Infantry, *temp.* Elizabeth.

In the reign of Elizabeth, the English infantry was divided into firearm-men, archers, billmen, and pikemen. The proportions of each arm varied; as gunpowder became more used, the number of "the Shotte" grew larger, while that of archers diminished. After this reign billmen disappear. In a quota for a division of the county of Lancaster, taken at Wigan in 1581, out of one hundred men to be raised—"whereof Shotte, xl.; Billes, xx.; Bowes, xx.; Pickes, xx."(1)—each man, in addition to his appropriate weapon, was to be provided with sword and dagger. In 1584 we find the same proportion, viz., two-fifths shot. (2)

In a levy of 600 men in 1587, "Shott" and "Pickes" only are ordered to be provided. (3)

(1) *Vide Lancashire Lieutenancy*, p. 120.
(2) *Ibid.*, p. 145.
(3) *Ibid.*, p. 185.

PLATE II.—Illustration in a Tract called, *The Exercise of the English, in the Militia of the Kingdome of England.* No date; about 1625.

Prince Maurice thought so highly of the pike for foot (he discarded it from the horse), that he divided his men half into pikemen and half into musketeers.(1) Lord Orrery calls "the Pikeman's forest" (a graphic description for a dense mass of staves) "the forest of the field," and says: "Our foot are generally two-thirds shot, and one-third pikes: the latter should be at least half, especially in England, where there are few strong places. In 1651," he goes on to say, "in the last battle we fought in Ireland, 1,200 of the enemy's pikes charged and routed our horse. All persons of quality who put themselves voluntarily in the infantry, carry the pike as the noblest weapon."(2)

In *L'Art Militaire,* directions are given how to resist cavalry with the pike. "Place the pike firmly on the ground, against the hollow of the right foot; clench hold of it with the left hand, so that the left elbow may rest upon it, in order that the right hand may be at liberty" (p. 62).

"The first place of honour," writes Munroe, "in marching, is at the head of the pikes; the second is at the rear of the pikes."

Markham gives us the postures for the exercise of the pike, as laid down by Prince Maurice. "They

(1) *L'Art Militaire.* Par Jean Jaques de Walhausen. Translated into French.

(2) *Art of War.* London, 1677, p. 24.

No. 2.

Illustration in a Tract, called *The Exercise of the English in the Militia of the Kingdome of England.* No date; about 1625.

are in number sixteen—that is to say, three which are expressed standing, five marching, and eight charging :—

"The three which are expressed standing, are—Lay down your pike; take up your pike; order your pike.

"The five which are to be done marching, are—Advance your pike; shoulder your pike; level your pike; slope your pike; trail your pike.

"The eight which are done charging, are—Port over hand; port under hand; charge over hand; charge under hand; couch over hand; couch under hand; charge against the right foot; and draw your sword over arme." (1)

The cost of the "furniture" of a pikeman in 1581 is given in the *Lancashire Lieutenancy*, p. 121.

"*The Charges of a Pike, viz.* :—

	s.	*d.*
His coate of broade blew at viij*s*. the yard, conteyning one yarde qr· di.	xj	
Sworde and dagger	x	
Coarslett	xxxiij	iiij
A picke	iiij	
Money in his purse	xx	
Prest money	iij	iiij
	iiij	xx*d*."

In 1631, the price of the pike was only 6d. more. (2)

"*Price of the Pike.*

The staffe	o	ii	vi
The head	o	i	viii
Socket and colouring . .	o	o	iiii
Summe,	o	iiii	vi."

(1) *Souldier's Accidence*, p. 21.
(2) An. 7 Car. I.—*Vide* Rymer, *sub anno*.

"20 Oct., 1657.—3,500 pikes to be furnished at 3s. 4d. a-piece; to be made of good ash, 16 feet long, with steel heads, bars to be strong and serviceable, in length 2 ft. or 22 inc. The staves to be coloured with aquafortis." (*Orig. Ordnance Accts.*, penes Mr. Pritchett, F.S.A.)

The pike maintained its position until the latter end of the seventeenth century, when the introduction of the plug bayonet converted the musket into a weapon of defence after it had been fired, and so superseded the use of the pike. (1) In 1633, Charles I. granted a commission to William Neade and his son, to teach the exercise of the pike and long-bow combined, an invention of the said Neade, and a treatise, entitled *The Double-armed Man*, was published in 1625. (2)

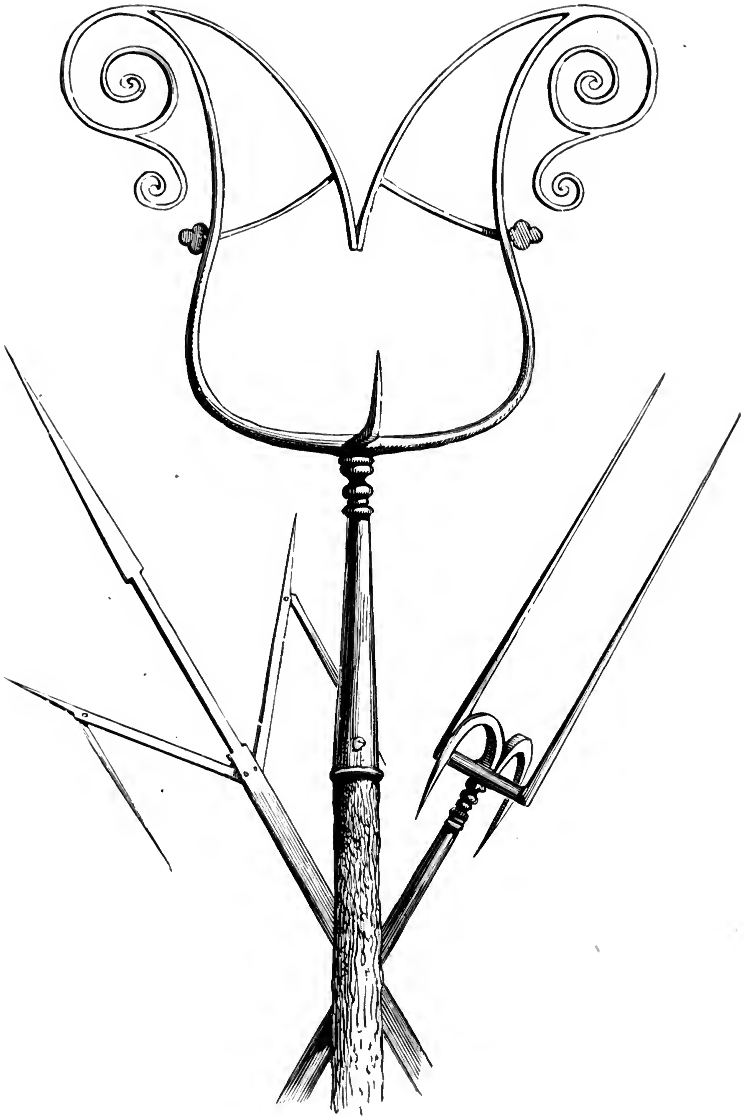
Officers of pikemen carried pikes as well as the men. (3)

(1) *A Manual of Military Discipline, or the Art of War*, published in 1689, teaches the exercise of the pike, and of the pike and fire-lock muskets together. Grose cites one, published by royal command in 1690, with the exercise of the pike. The *Gentleman's Dictionary*, published in 1705, describes it as a weapon formerly in use, but then changed for the musket, so that the alteration must have taken place between the years 1690 and 1705. (See *Mil. Antiq.*, i., ch. v., p. 127.) The bayonet was introduced into the English army in the year 1672. The pike was abolished in the French army in 1703-4 (Puysegur, *Art de la Guerre*, ch. vi., and Daniel, *Mil. Fran.*, ii., liv. xiii.), and it was probably disused in our army at about the same time.

(2) A proclamation for the use of the bow and the pike together (*Vide* Rymer, *sub anno* 1633). Neade, William, and Neade, William, his sonne, obtained Letters Patent for fourteen years, for "certen engines for affixing the bowe together, and a new quiver for the arrowes," A.D. 1634. (*Specifications of Fire-arms and other Weapons*, published by Commissioners of Patents, London, 1859.)

(3) Col. Lunsford, in the Sutherland Collection at the Bodleian Library, is depicted with a pike.

No. 3.



The centre is a Catch-pole; right and left are Military Forks.
(In the Tower Collection.)

With respect to the pikes themselves, they were to be made of the best tempered steel, and strengthened with plates downward from the head. The stem, or shaft, was made of ash, and was originally of great length, but gradually became shorter. The general length, according to Sir James Turner, was eighteen feet, but he says that few in his times exceeded fifteen. Lord Orrery says "it ought to be sixteen foot and a half long." (1) By the 13th and 14th of Charles II., the pike is not to be under sixteen feet in length, the head and foot included.

Varieties of Spears.

The varieties of the spear kind were formerly comprehended under the French term *bois* (wood), and our old writers frequently denominate them "stavis." There was the Morris—or as it was more anciently written, Moorish—pike, perhaps derived from that people. (2) It had a flat, leaf-shaped blade, and was much used about the reigns of Henry VIII. and Elizabeth. (3)

PLATE III.—The centre is a catch-pole; right and left are military forks. (From the Tower.)

The Halbert.

The Halbert was another species of the genus bill. The bill was the principal weapon of infantry until the pike came into use. (4) Watchmen in the six-

(1) *Art of War*, p. 24.

(2) "Then on the English part with speed
The bills stept forth, and bows went back,
The Moorish pikes and mells of lead
Did deal there many a dreadful thwack."

Battle of Flodden.

(3) Among a levy of men for Ireland in 1584.—*Harl. MS.*, 1,926, Art. 51, fol. 65. "The Morispyke, iij[s.]"

(4) In an Inventory of the Ordnance in the Tower of London,

teenth and seventeenth centuries carried bills. Dogberry tells his men, "Have a care your bills be not stolen." It was a sort of *bi-pennis*, or double-edged battle-axe, and, when affixed to a long stave, it was called a halberd (Hellebardes, German, *i.e.*, cleavealls). They were constructed both for pushing and cutting, and pulling down. There was the spear, an axe, and a fork or hook. These, from their heavy head-pieces, were more likely to be broken, and as they could not be mounted on a very long staff, were not so well adapted to repel the attacks of cavalry; besides which, halberdiers were sometimes embarrassed by the forks of their weapons catching in the garments of their comrades; (1) but again, they had the advantage in close fighting, and therefore pikes were made the strength of the armament, and a body of halberdiers were kept in reserve, to guard the colours, or to be prepared for the *mêlée*.

"Your halberdier," says Markham, "shall be armed in all points like your pike. . . . These halberds (fringed or adorned according to pleasure) do properly belong unto the sergeants of companies, who, by reason of their much employment, are excused from arms; otherwise, in the day of battle, or in the battle, they are for guard of the ensigne, or matter of execution, &c." (2) They continued to be carried by

temp. Eliz., "Black bills (so called from their blades being blacked instead of being kept bright), 7,900 to be bought at 16d. the piece; Morrispikes, 14,647 to be bought, 1,000 at 2s. the piece." (*Archæol.*, xxxvii.)

(1) Guler, quoted by Müller, vol. iii., part i., p. 213.

(2) The *Souldier's Accidence*, p. 4.

No. 4.

Ceremonial Beheading Axe of the latter end of the Sixteenth Century, carried by the Master Gaoler of the Tower of London. The Staff is studded with brass nails over leather.

sergeants of British infantry until 1829,(1) a proof of English adherence to old customs.

Being showy weapons, they were often appointed to be borne by guards of honour, such as attended the person of the sovereign, or of the great officers of the army or state. The Swiss Guard of the Pope still bears them, and there are halbertiers attendant on the royal family of Spain.

The Headsman's Axe of State, an interesting historical relic, is still preserved in the Tower. Its probable date is the sixteenth century, from which time, down to the present, it has been occasionally used, and is still carried by the master-gaoler of the Tower. The staff is studded with brass nails over leather, now almost worn through.

When state prisoners were conveyed by barge from the Tower to Westminster to be tried, the master-gaoler stood in the bow, with the blade away from the prisoner; on the return, should he have been sentenced to death, the edge was then directed towards him. Hall gives an account of the condemnation, and subsequent demeanour, of the Duke of Buckingham: "Then was the edge of the axe," says the chronicler, "turned towards him, and so led into a barge."

The accompanying sketch (Plate IV.) was taken by kind permission of Lord De Ros, Deputy-Lieutenant of the Tower.

(1) "He felt that noble emulation which has conducted him to Flanders with a musket on his shoulder; and doubtless will promote him to a glorious halbert, or even to the gallows." (*Antiquary*, ch. vi.)

The Partisan.

The Partisan is a member of the same family, deriving its name, according to some, from the French *pertuiser*, to pierce, according to others from the German Barthe, or axe, or the Latin *pertica*, a long staff or pole. It was a larger and heavier weapon than the pike, and was of great variety of form. It had generally two spikes at the bottom of the blade, either shooting straight out, or curved upwards or downwards, and sharp on both edges. It was found more serviceable than the pike in trenches and in close quarters. These weapons are mentioned by Hentzner as being in the Tower at the time of his visit here, in 1598:—"Hastæ multæ et splendidæ, quas Partisan vulgo appellant, et quibus ad defensionem regii corporis in bello satellites utuntur." (p. 193.) They are still carried by the Yeomen of the Guard.

Pole-Axe.

The Pole-axe was a weapon about four feet in length, containing a pike and a hatchet on one side, and a hammer on the other. The Royal Guard of Pensioners were armed with them.

There is a collection of ancient bills and partisans —a very early form of bill—of the times of Henry VI., VII., and VIII., preserved in the Town Hall of Canterbury.

Plate V.—Bills, partisans, and linstock (lintstock, for holding gunner's match), from the Rotunda, Woolwich.

"Clubs, bills, and partisans."

Romeo and Juliet, act i., sc. 2.

The Welsh glaive was a kind of bill, sometimes

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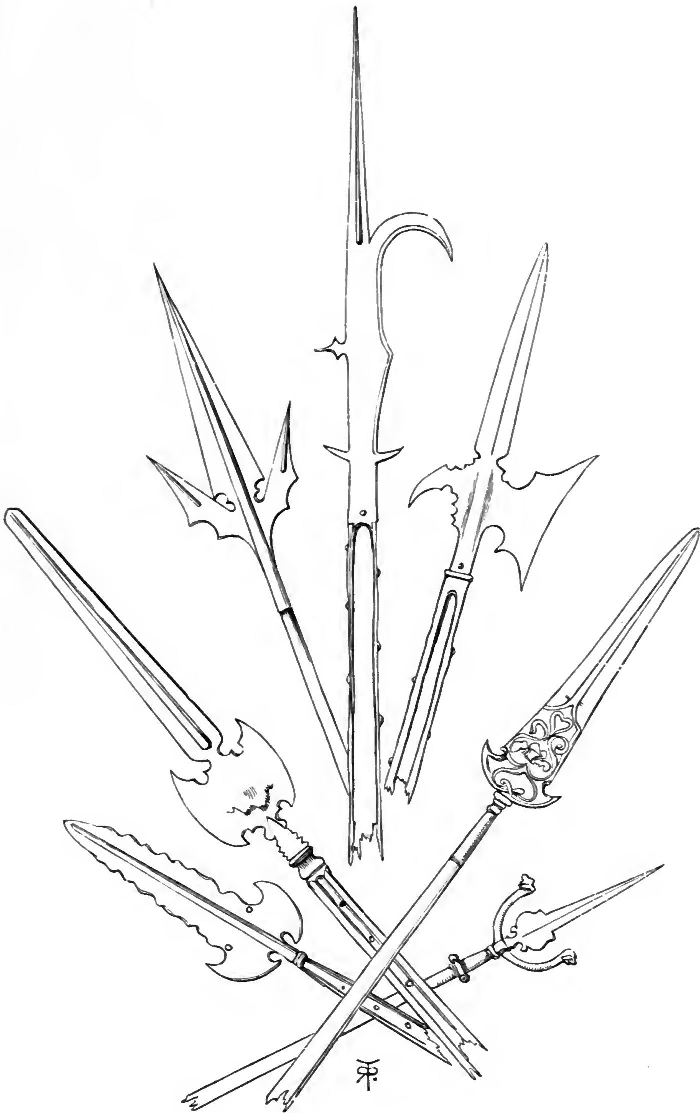
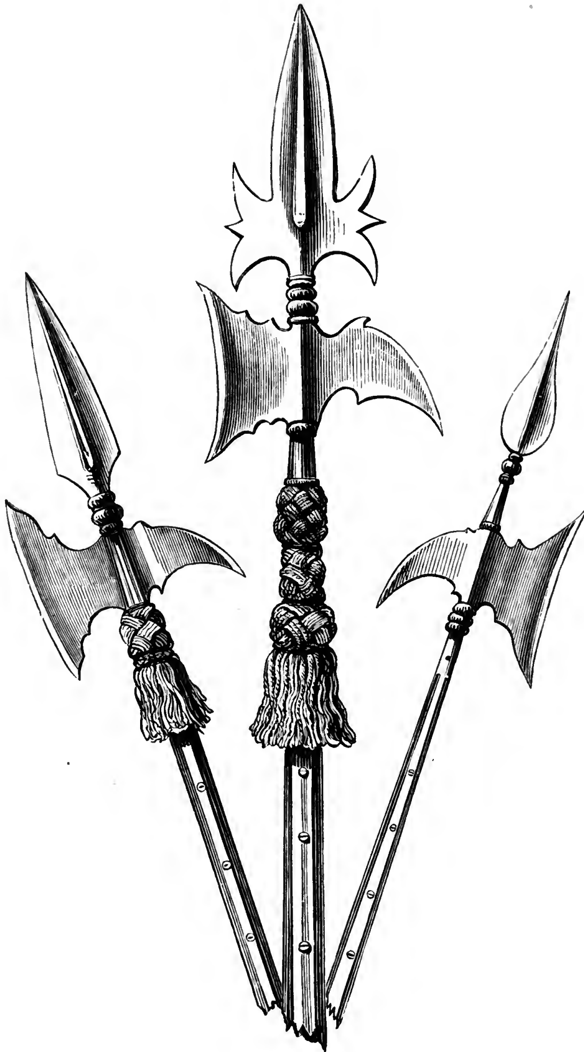


Bills, Partisans, and Linstock.
(From the Woolwich Collection at the Rotunda.)

No. 6.



Spontoons. (From the Tower Collection.)

reckoned among the pole-axes. In an abstract of the grants of the 1st of Richard III. (Harl. MSS., No. 443), there is an entry of a warrant granted to Nicholas Spicer, to impress smiths for making 2,000 Welsh bills or glaives.

Sponton.

The esponton, or spontoon, or sponton, was a light partisan borne by officers of infantry, and superseded the half-pikes which they had hitherto carried. In the regulations by the Duke of Cumberland in 1743, printed in Symes's *Military Guide*, (1) we read, "It is his Majesty's order that all the officers of foot have espontons instead of half-pikes." In the French army they had been adopted twenty years before. Puységur writes, "Dans cette guerre (l'hyver de 1703 à 1704) les officiers ont été armés d'espontons du huit pieds de long; les sergens d'hallebardes de six pieds et demi, et tous les soldats de fusils avec des bayonettes à douille." (2)

They were used in the English army till 1786, when it was ordered, "Espontoons to be laid aside, and swords to be used." (3) The officers of the Fusilier regiments never carried spontoons, as the others did, but had fusils like those of the flank companies throughout the army. (4)

A group of spontoons is represented on Plate VI., copied from originals in the Tower. There are also specimens in the Museum of the Royal United Service Institution.

(1) Library Royal United Service Institution.
(2) *Art de la Guerre*, tome i., ch. vi., p. 57.
(3) Mackinnon, *Hist. of the Coldstream Guards*, ii. 30.
(4) Grose, ii. 217.

Pavise.

A very useful defence for infantry was the *pavise*, or mantlet, which was a great shield, capable of covering a man from head to foot, and of sufficient thickness to resist most missile weapons in use up to the fifteenth century. There were pavisors (men who bore pavises) on horseback, others on foot; some, again, only acted as shield-bearers, or coverers for archers or cross-bowmen.

In Talbot's "Ordinances for the Army" in 1419, it is ordered that every "ii. yeomen make them a good pavise of bordes, or of pªp', in the beste maner they cane devise, that on may hold it whiles that other dothe shute."(1) M. Viollet-Le-Duc is of opinion that the cross-bowman carried his pavise fixed on his shoulders, turning his back to the enemy while he wound up and made ready his weapon. (2)

Pavises were sometimes carried by servants at sieges, in order to protect their masters whilst they took their quiet aim at the enemy. (3) These great shields were also employed by the besieged as well as the besiegers, for the defence of their walls, when breaches had been made. (4) Froissart mentions an instance of their being employed by the besiegers to cross the ditch to prevent their sinking in the

(1) Note of Mr. Albert Way, in *Promptorium Parvulorum*, ii. 386.

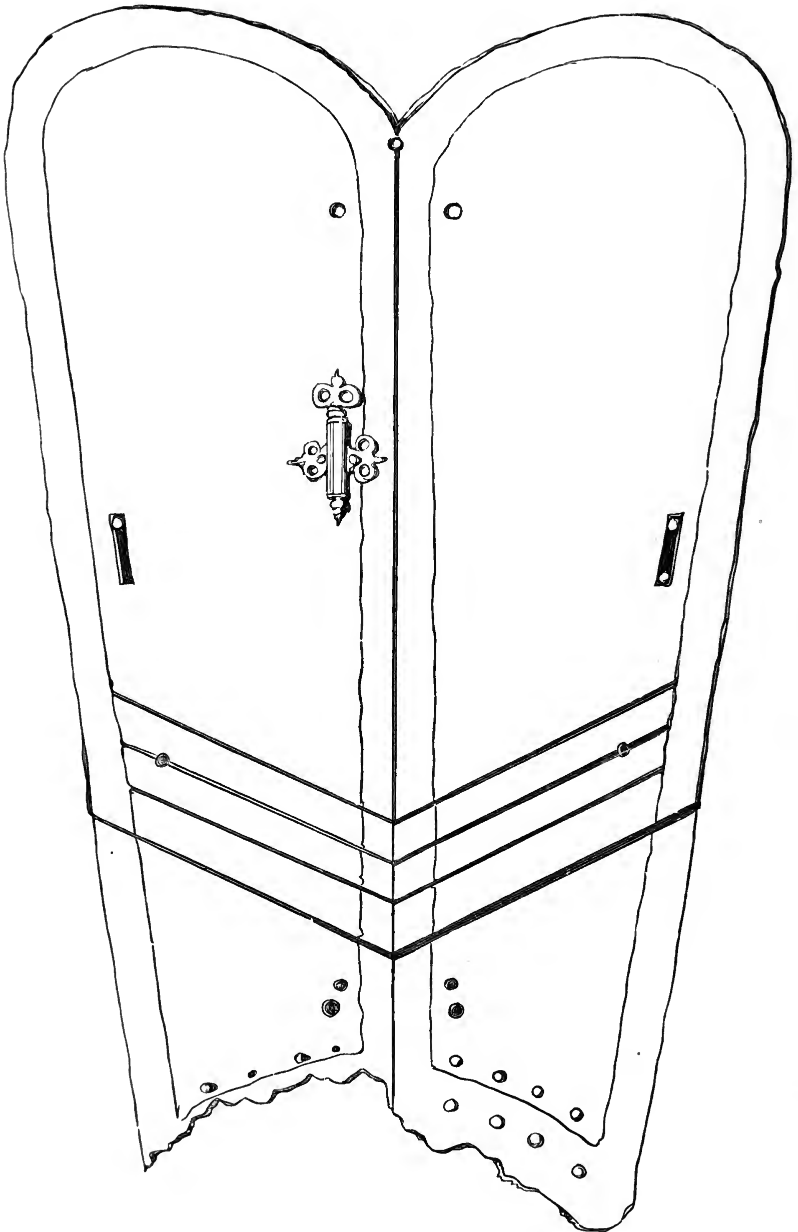
(2) *Dict. de l'Architecture Française*, p. 410.

(3) "Tunc præcedebat cum Parma Garcio, sub qua
Nil sibi formidans obsessos damnificabat.
Assiduè poterat nec ab illis damnificari;
Asseribus latis cum Parma protegit ipsum."

(Guil. Breton, *Philippidos*, l. x., p. 354.)

(4) Strutt's *Horda*, vol. ii., plate 43.

No. 7.



Pavois. Weighing 50 lbs.; length, 3 feet; width, 21·5 in.
(From Warwick Castle.)

mud,(1) and also used over the heads of a scaling party. (2) Under cover of pavises, or pavaches, as they are sometimes termed, miners were enabled to approach to the bases of walls in order to sap them. (3)

At the battle of Coutances, "Sir Louis of Reyneval saw the demeanour of the enemy, and caused his company to light on foot, and to pavess them with their targes against the archers." (Berners' *Froissart*, i., cap. clxxii., p. 209.)

In the attack of the French and Spaniards upon the Isle of Portland, in 1404, the English formed pavises, to protect themselves from the cross-bow bolts, by taking the doors from their houses, and fixing them upright by props, under cover of which the archers plied their arrows. (4)

At Warwick Castle is a monster pavois, weighing 50 lbs.; length, 3 ft.; width, 21·5 in. (See Plate VII.) It is difficult to surmise the object of the ornamented piece like a plume-holder, and the front slides off like a "*pièce de renfort*" on a helmet, so as to divide the weight.

When heavy armour was laid aside, as not being proof against the force of gunpowder, heavy shields

(1) "Et passoient aucuns sus pavois afin que la bourbe ne les engloutît." (ii. 96.)

(2) "The Frenchmen had certain scaling ladders, and some of them adventured themselves to mount upon the walls, with pavisses before them, for fear of shot and casting of stones." (*Chron.*, Johnes, i., cap. cclxv., p. 392.)—Compare also Scott's magnificent description of the storming of Torquilston, in which pavises and mantles are specified. The assailants "bear huge shields, and defences made of plank." (*Ivanhoe*, vol. ii., ch. vi.)

(3) Froissart, i. 195.

(4) Southey's *Naval History*, ii. 28.

were for the same reason discarded; light shields, generally round, took their place. There are some specimens with pistol-barrels placed in the centre;(1) these were probably experiments introduced by the Spaniards.

Targets. In consequence of the unprotected state of troops likely to be engaged at close quarters, from this laying aside of armour, the adoption of targets (2) was generally recommended for pikemen and other foot-soldiers in advance of lines. Maurice, Prince of Orange, was a great advocate for the shield. He armed some of his Dutch troops with targets and roundels, and instituted a regular exercise for them; see "*Le Maniement d'armes de Nassau avecq Rondelles, piques, espees, et targes, representés par figures selon le nouveau ordre de tres illustre Prince Maurice de Nassau*," &c. &c., par Adam Van Breen, 1618.

Plate VIII.—A very heavy Rondelle from Warwick Castle, *cir.* 1620.

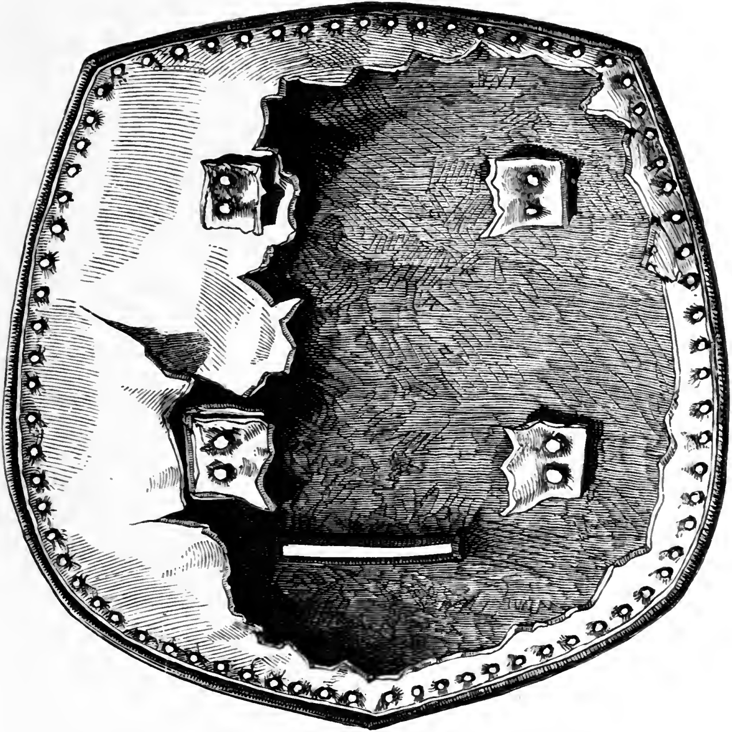
"The Prince of Orange," says Captain Cruso, "had a great desire to make use of the target, and having caused divers trials to be made thereof, hath found that it hath not only resisted the pike, but that half the number of targets hath always entered into twice the number of pikes, and hath routed them.

(1) One in the Spanish armoury at the Tower, another in the Museum of the Royal United Service Institution.

(2) From *tergum*, a hide. They were mostly made of wood, covered with folds of bulls' hide, or jacked leather (*cuir bouilli*), and occasionally with plates of brass or iron, the circumference generally bound with iron.

"Lo, with a band of bowmen and of pikes,
Brown bills, and targetiers."—*Marlowe's Edward II.*

No. 8.



A very heavy Rondelle. (From Warwick Castle.) *Circa* 1620.

For my part, I would add this kind of arms to our discipline, making always the principal body of my infantry to be of pikes, and to have, for every battalion, a small body separate of 100 or 120 targets, to charge on the flank." (1) So also Matthew Sutcliffe "would have the number of targettiers increased." The target to be "made of wood, either hooped or barred with iron. It would be three foot and a half in length, and two foot and a half in breadth, in form oval. A kind of arms now disused, but most excellent in all services, save against horsemen in the plain field. Against archers, targets are a sure defence, and dangerous to the enemy, after that men come to close." (2)

Scots' Shields.

The Scottish Highlanders are the latest instances of men using shields in these islands, and they adhered to them with pertinacity even up to '45. Patten gives a description of some rough shields picked up on the field after the battle of Pinkie, A.D. 1547. "Nye this place of onset, whear the Scottes at their runninge away had let fall their weapons, thear found we, besyde their common manner of armour, certeyn nice instruments for war (as we thought), and they were nue boardes endes cut off, being aboute a foot in breadth and half a yarde in lengthe, havyng on the insyde handels made very cunningly of two cordes endes; these, a God's name, wear their targettes againe the shot of our small

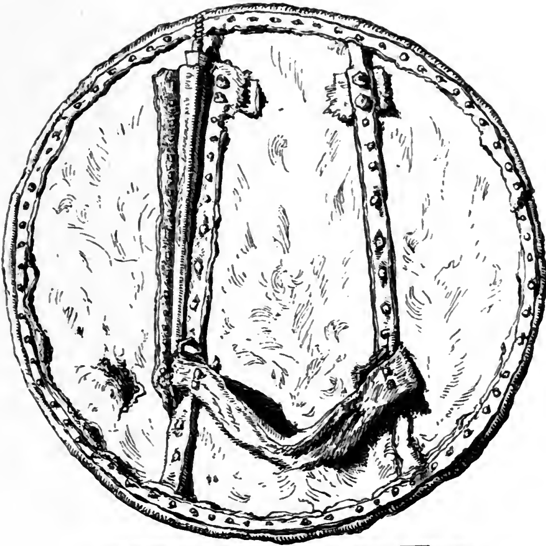
(1) *A Treatise of Modern War*, ch. ii., p. 109.

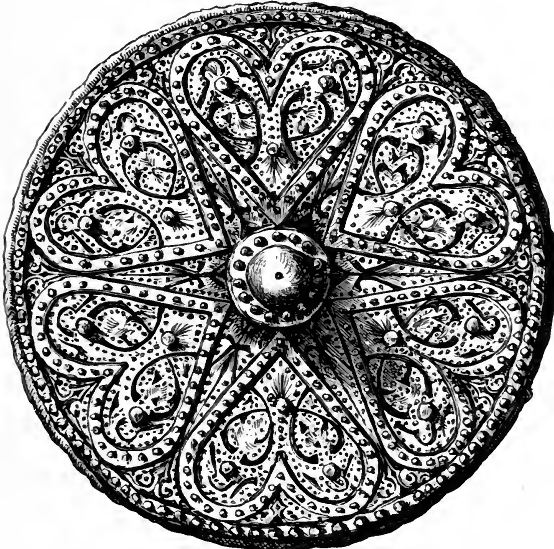
(2) *The Practice, Proceedings, and Lawes of Armes*, ch. xii., pt. ii., p. 187. A.D. 1593.

artillerie, for they wear not able to hold canon." Grose says (*Ancient Armour*, ii. 309) he remembers many privates in the old Highland regiment in Flanders, in the years 1747-8, armed with targets, which, though no part of their uniform, they were permitted to carry.

The Highland Target represented on Plate IX. is preserved in Warwick Castle, and presents the unusual feature of the spike-scabbard at the back, with the spike unscrewed from the boss in front, and returned in the scabbard. The inside of the shield is lined with deer-skin, the holders for the arm or *enarmes* are of otter skin. Date, A.D. 1715.

No. 9.





Highland Target (from Warwick Castle), with Spikes. The upper figure gives the Spike unscrewed from the boss and returned to its Scabbard.

CHAPTER III.

ANTIQUITY OF THE BOW—NORMANS—EARLY SUPERIORITY OF ENGLISH ARCHERS—CROSS-BOW—RICHARD I.—BOLTS AND QUARRELS—FORCE OF A BOW—THE ENGLISH LONG-BOW—ARCHERY STATUTES TEMP. EDWARD III.—BATTLE OF HOMILDON—HENRY V.—ARCHERY NOT POPULAR IN SCOTLAND—RICHARD III.—HENRY VII.—CROSS-BOWS FORBIDDEN—HENRY VIII.—FLODDEN FIELD—LATIMER'S SERMON—DISUSE OF ARCHERY—QUEEN ELIZABETH—JAMES I.—CHARLES I.—COMMISSIONS FOR ENFORCING USE OF LONG-BOW—ARCHERS IN CIVIL WAR—BOW-STAVES—ARROWS—BUTTS—COSTUME AND PRACTICE OF ARCHERS—ARTILLERY COMPANY OF LONDON—ROYAL ARCHERS OF EDINBURGH.

English Archers.

THE archers of England were undoubtedly the flower of our feudal infantry. To them our great victories are due, and when archery went out of use, we lost our superiority on land; never since were such victories gained against so overwhelming numbers; the slaughter, consequently, upon such occasions, was prodigious. Of our archers it may be said, as it was predicated of old of those of another "mighty nation," "Their quiver was as an open sepulchre—they were all mighty men;" and as the historian in future ages may recount, with patriotic pride, the great deeds of that hardy race of men that won our maritime supremacy—so may we, by universal admission, claim for our archers a superiority over those of other countries. "Les Anglois," says De Comines, "sont la fleur des archiers du monde." (p. 11, edit. 1580.)

In all nations, the bow, as being the simplest propelling instrument, was about the first weapon employed in war or the chase. (1) In this latter capacity it may have been used by the ancient Britons. Archers were employed in Roman armies. Cæsar had Numidian and Cretan archers, and Balearic slingers, when he encountered the Belgæ in Gaul; (2) it is possible that these troops may have formed part of the expeditionary force with which, ten years afterwards, he landed on these shores; but he makes no mention of this arm, except that in the first combat with the natives, he orders that they "should be driven back by slings, *arrows*, and engines," (3) the arrows may have been directed by bowmen from the decks of his ships, but most likely they were thrown by the engines. The Britons do not seem to have made use of bows as war-arms; for Cæsar several times expresses their mode of warfare to have been to hurl darts. (4) Archery was practised by the Anglo-Saxons and Danes, as has been already observed, and representations of the bow occur frequently in the Saxon manuscripts, (5) but we are

(1) The earliest instance in the Old Testament where the use of the bow is implied, occurs in Genesis xxi. 16, and in the fourth succeeding verse it is said of Ishmael, "And God was with the lad; and he grew, and dwelt in the wilderness, and became an archer." This was 1892 B.C., consequently nearly 4,000 years ago.

(2) *Bel. Gal.*, ii. 7.

(3) "Atque inde fundis, sagittis, tormentis, hostes propelli ac submoveri, jussit." (*Bel. Gal.*, iv. 25.)

(4) "Audacter tela conjicerent." (*Ibid.*, 24.)

(5) See Strutt's *Sports*, b. ii., ch. i., where two archers (sportsmen) are depicted from a Saxon MS. of the eighth century, in the Cotton. Lib., *Claudius*, B. iv.

probably indebted to the Normans for the introduction of the bow as a regular military weapon, used in bodies of infantry.

Norman Bowmen.

William the Conqueror had a great number of archers in his army of invasion; all foot were armed with the bow, according to the invaluable testimony of Robert Wace:

> "La gent à pié fu bien armée,
> Chescun porta arc et espée."—*Roman de Rou.*

William of Normandy was, doubtless, forcibly impressed with the advantage of the bow as a military weapon. It is safe to assume that he encouraged and stringently enjoined the practice of archery; for in a short time we find that archers formed a very considerable portion of the national infantry. At different periods of our history it was thought necessary to enact divers statutes to enforce the practice of archery; but, nevertheless, when once fairly introduced into this country, it appears to have been congenial to the tastes of the people; and the bow became to be regarded by Anglo-Saxon, as well as by Anglo-Norman, as essentially a national weapon.

As early as the twelfth century, we have a record of the performances of the English archers. At the attack on the Castle of Messina by Richard I., on his passage out to the Holy Land, he had 1,000 bowmen; [1] we are told that the Sicilians were forced to

[1] "Sagittis" is the word in the text.—Richard of Devizes, § 24, Bohn's edit.

have their "walls without guard, because no one could look out of doors but he would have an arrow in his eye before he could shut it." Nor did Cœur-de-Lion disdain himself to handle the bow, and before the Castle of Nottingham, which had been besieged by Earl John, "the King himself slew one knight with an arrow." (1) His own death, at the siege of the Castle of Chalus (Chalus-Chabrol, Limoges), in 1199, was occasioned, it is stated, by a bolt from a cross-bow, (2) a weapon which he is said to have been the first to adopt. He may have had the temerity to have assumed it, for before his time there had evidently been a rigorous attempt to introduce it, as it had been forbidden by the second Lateran Council, under Innocent II. (A.D. 1139), as unfit for Christian warfare, on account of its fatal and cruel effects. (3) The bow, however, was found too useful to be laid aside, and the denunciation of the Church was therefore renewed under Innocent III., who ascended the Papal throne in 1198.

Guillaume le Breton and Guiart both assert that Richard was the first to re-establish the bow, and that Philip Augustus followed his example. (4)

No wonder that, in that superstitious age, the death of Richard by the weapon of his adoption was

(1) *Ibid.*

(2) Hemmingford.

(3) "Artem illam mortiferam et Deo odibilem balistariorum et sagittariorum adversus Christianos et Catholicos exerceri de cetero sub anathemate prohibemus." (Can. 29.)

(4) See *Philippidos*, liv. ii. and v.

attributed to his impiety in disobeying the mandates of the Church.

> "Ainsi fina par le quarrel, (1)
> Qu' Anglois tindrent à deshonneste,
> Li rois Richart, qui d'arbaleste
> Aporta premier l'us en France.
> De son art ot mal chevance."
>
> (Guiart, *Chron. Métr.*, l. 2,644.)

The cross-bow, or arbalest (*arcus balistarius*, or *balista manualis*, Lat.; *arbalète*, Fr.), was a modification of those great projecting engines which followed in the train of the Roman legions. Vegetius (*De Re Militari*, iv. 12) makes mention of a machine of this sort. It consisted of a large bow fitted on a beam, and was called *arcubalista*.

Balistarius is a common addition to English names in Domesday Book, but this may mean either an *Engineer* or a cross-bowman. (2) The cross-bow, however, does not seem to have been generally recognised as a military weapon before the close of the twelfth century, and, notwithstanding the fatal example presented by Richard I., it continued to be much used by the English for a considerable period.

Hallam observes that it is an odd oversight that Sismondi has said, "Les Anglais étaient accoutumés à se servir sans cesse de l'arbalète" (x. 295); for "the cross-bow was always looked upon by the English as a weapon unworthy of a brave man." (3) Now the

(1) The bolt of a cross-bow.

(2) "BALISTAR, he that shot in engine called *Balista*, or a cross-bowman." (Blount.)—"*Walter de Molesey* tenet Terram suam de domino Rege in Molesey, per serjantiam existendi Balistarius domini Regis in Exercitu suo per XL. dies," &c. 39 Hen. III. (*Ibid.*)

(3) *Mid. Ages*, pt. ii., ch. i., p. 54.

long-bow, undoubtedly, had triumphed over the cross-bow in the fourteenth century; but, nevertheless, the latter continued to be used in our armies up to that period, and even later. Without repeating the fact of Richard I. having used it, in a list of forces raised by Edward II. (1322) against the Scots, cross-bowmen are the first mentioned in the enumeration of the different kinds of foot-soldiers of which it consisted (1); and by the following quotation it will appear that the cross-bowmen received higher wages than the long-bowmen. "De vadiis personibus, &c., A.D. 1310" (Rymer, 3 Edw. II.): "to each of the s[d] men-at-arms 10 pence a-day, to each *cross-bowman* 3 pence, and to each long-bowman 2 pence."

Latches and Prodds.

There were two denominations of cross-bows—latches and prodds. The latter, called by the French *arbalètes-à-jolets*, were chiefly used for sporting purposes.(2) They were bent with the hand, by means

(1) "Titulus de vadiis tam peditum, *balistariorum*, lanceatorum et sagittariorum Angliæ," &c. (MS. quoted in Grose's *Mil. Ant.*, i. 142.)—Also, same date (Rymer), "Rex Senescallo suo Vascon, &c., apud Novum Castrum super Tynam. . . . . Mandamus quod ducentes *balistarios* et ducentes homines ad lanceas, pedites," &c.

(2) It was, doubtless, with such a weapon that Queen Elizabeth killed (on horseback) her three or four deer at Cowdray. (See Nichol's *Progresses*, iii. 90.) And Shakespeare writes:

> "The noise of thy cross-bow
> Will scare the herd."—3 *Hen. VI.*, iii. 1.

See also Grose, *Mil. Ant.*, ii. 289; and Meyrick and Skelton's *Anc. Arm.*, vol. ii.—There is a curious correspondence given in Ellis's *Letters* (3 S., vol. iv., l. ccccclix.), respecting Abbott, Archbishop of Canterbury, who, by misadventure, in 1621, killed Lord Zouch's keeper, by an arrow from a cross-bow, instead of the deer which he shot at.—Ordericus Vitalis, speaking of the fatal shaft—directed or mis-directed—which is said to have issued from Walter Tyrrel's

of a small steel lever called the goat's-foot, on account of its being forked or cloven on the side that rested on the cross-bow and the cord. The former were the military weapons, and were bent with one or both feet, by putting them into a kind of stirrup at the extremity, and then drawing the cord upwards with the hands, as described in the verse of Guillaume le Breton:—

"Ballista duplici tensa pede missa sagitta." (1)

The bow itself was usually made of steel, though sometimes of wood or horn. When bows were made stronger, mechanical contrivances were required for bending them; many were bent with a vice, and a machine called a moulinet was also used, and pulleys.

The missiles discharged from them were not only arrows, which were shorter and stouter than those of the long-bow, but also bolts (*bolzen*, German; *quarreaux*, or *carrieaux*, French; *quadrelli*, Latin, corrupted into quarrels, from their pyramidal form,) and also stones or leaden balls. In some of the early ordonnances, preserved in Rymer, we find the term *Petilarius*, for the makers of bolts. "Petilio, petilium, petilla, voces quæ jaculorum seu sagittarum

bow, says, "sagittam emisit." The Abbé Suger states that Tyrrel assured him, in the most solemn manner, that he had not even seen the King on the day he met his death, nor had even entered the New Forest on that day. (See *Vie de Louis le Gros*, tom. xii. of the *Recueil des Historiens de France.*)—Malmesbury, p. 126, and *Ordericus Vitalis*, p. 782, assert that the shot came from Tyrrel's bow.

(1) See the picture of the Martyrdom of S. Sebastian, in the National Gallery, as an exemplification of this. There are stirrup cross-bows in the collection at the Tower, and in the Museum of the Royal United Service Institution, Whitehall.

speciem significare videntur. Petilliarius qui eas operatur." (Du Cange.) "Necnon duodecim arcubus, viginti quinque cornubus, et viginti et quatuor sagittis vocates *Brod-arwes* (broad-arrows) quatuor duodenis *Petileorum*, videlicet Boltes." (Stat. Edw. III., A.D. 1372.) "Unam garbam parvorum *Petilionum* volatilium . . . cum *petionibus*," &c. (Stat. Rich. II., 1383.) "Quod nullus Petillarius aliquod genus *Petillarum* nisi solummodo sagittas vocatas shefe arrowes, faciant quoque modo, et quod *Petillarii* illi sagittas ac omnes et singuli artifices sive operarii arcuum," &c. (Stat. Edw. IV., 1474.)

The strength of a bow may be calculated on the principle that its spring—*i.e.*, the power whereby it restores itself to its natural position—is always proportionate to the distance or space from whence it is removed. According to Sir John Smythe, (1) a cross-bow will kill, point-blank, between forty and sixty yards, or further. The range, of course, depends on the size and strength of the bow, but the distances here given are such as a common cross-bow would carry. De Bellay gives it a still wider range, and says if the ammunition for a cross-bow could be carried as conveniently as that for an arquebus, "he would commend them before the harquebusse, as well as for their readinesse in shootinge, which is much more quicker, as also for the sureness of their shot, which is almost never in vayne;" that they could kill at 100 or 200 paces; and that the same number of cross-bows, properly handled, would do twice as much execution

(1) *Instructions and Observations, &c.* (A.D. 1590), p. 204.

as the same number of arquebuses. (1) The French entertained a high opinion of the cross-bow, and retained it to their detriment in their armies when it had been discarded by the English. The Maître des Arbalêtriers was one of the chief dignities of the French army, next in rank to a Marshal of France. Daniel gives a complete list of them up to the reign of Francis I., in 1523, when the office ceased. (2) No such office of corresponding influence existed here, although we find a "Balistarius," or keeper of the cross-bows, appointed by the King's letters patent, *temp.* Hen. III. He received wages of twelve pence per diem, (3) was provided with a doublet and surcoat, furred with lambskin, (4) and had an allowance for three servants. The last mention of this office is in the reign of Hen. VI., when it was granted to the holder for life. These cross-bows were probably kept for sporting purposes. There was also another officer called the Attiliator balistarum, a furnisher of the necessary accompaniments of the cross-bow. His wages, *temp.* Hen. III. and Edw. I., were 7½d. per diem, and he was provided with a suitable robe. (5)

The only advantage of the cross-bow over its rival was the precision of its shot, cross-bowmen being much more certain of hitting their mark than archers with the long-bow, or even, according to De Bellay,

(1) *Instructions for the Wars,* transl. by Paul Ive (A.D. 1589).

(2) Tom. i., liv. iii., ch. 10.

(3) *Rot. Liberat.*, 2 Hen. III., m. 4, quoted in Bayley's *Tower of London,* 211.

(4) "Unam robam, scilicet, tunicam et supertunicam de viridi vel de pennat'." (*Rot. Claus.*, 9 Hen. III., p. 2, m. 9.)

(5) See Bayley, *ut supra.*

than the encumbered arquebusiers. *Per contra,* it was much heavier than the long-bow, its ammunition was ponderous, there was a difficulty in protecting it from wet, and it could not be discharged with rapidity. It was consequently better adapted for fighting behind walls, or on board ship. Cross-bowmen were often employed on horseback; see a specimen of one of the thirteenth century, in the *Histoire Universelle,* Roy. MS. 20, D. i., fol. 127, one of the finest manuscripts in the world for the illustration of ancient armour and military usages. Henry V. is said to have had 4,000 horse-archers in the army that proceeded to the siege of Harfleur. (1) Sir Thomas Guildford commanded 200 archers on horseback at the siege of Terouenne, under Henry VIII., (2) and fifty archers on horseback attended the King when he marched out of Calais, *en route* to the siege of Boulogne. (3)

The long-bow was the weapon on which Englishmen prided themselves; it was by it they reaped their victories. The bolt which was shot from a cross-bow was equally forcible, whether discharged by a dwarf or a giant; but the long-bow, besides visual accuracy, required the sinews of a strong man to draw it to its extent, and this was the great advantage that the well-fed yeomen of England possessed over the neglected peasantry of France.

Archery appears to have reached us from the East;

(1) Nicolas, *Agincourt,* p. 47.
(2) Kennett, ii. 16.
(3) Bibl. Cotton., *Calig.*, E. 4 fol. 90.—Rymer, *sub an.* 1544.

the bow was the destructive weapon of all the Turkish tribes. Hungary, Tartary, Persia, Syria, and Asia generally, were always armed with it, and the Crusaders at first suffered much from the deadly aim of Saracen archers. The long-bow appears to have displaced the cross-bow in our armies, after the first quarter of the fourteenth century; the term "*sagittarius*" then becomes frequent, and the official documents record the levies only of "hominum ad arma, armatorum, hobelariorum et *sagittariorum*," or "des gentz d'armes, des hobelours et des archers, convenablement apparaillez." (1) After 1322 there are no orders in Rymer in which cross-bows are mentioned, except in 1325, and they were intended, as is clear, for the defence of a camp, and not for service in the field. (2)

In the brilliant reign of Edward III., the English archers gained imperishable glory. The fields of Crecy and Poitiers were won by them. The skilled Genoëse cross-bowmen were brought in contact with them, and they were utterly discomfited. "Au voir dire, les archers d'Engleterre portèrent très grand avantage à leurs gens, car ils traioient si ouniemont et si épaissement qui les François ne savoient de quel côté entrendre qu'ils ne fussent atteints du trait; et toujours se avançoient les Anglois, et petit à petit conquéroient terre." (3)

(1) 18 Edw. II., A.D. 1324.—See Rymer, *sub an.*

(2) "De armaturis pro munitione castrorum.—Springaldos, balistas, arcus, sagittas, ingenia et alias hujusmodi armaturos."

(3) Froissart, i. 348.

During this reign there are several orders respecting archery. In the fifteenth year (1341) the King directs the sheriffs of most of the English counties to provide 500 white bows, and 500 bundles of arrows. Similar orders are repeated in the following years, with this difference only, that the sheriff of Gloucestershire is directed to furnish 500 painted bows, as well as the same number of white. (1) In 1346 orders were issued "for providing bows and arrows for the projected war in France." (2)

When troops were disbanded as soon as hostilities ceased, and returned to their civil avocations, a disuse of martial exercises naturally followed, and therefore the warlike Edward thought it requisite to stimulate the people to exertion in sustaining so important an arm of the public service, and consequently enjoined the practice of archery, and forbade many rural sports which had the effect of drawing them away from it.(3) This order was given in 1363 and repeated in 1365.

Richard II. directs all the servants of his household always to travel with bows and arrows, and to take every opportunity of using them, especially on Sundays and holidays. (4)

(1) Rymer, 1342 and 1343.—The reason of this double charge upon Gloucestershire is not apparent. The price of a painted bow in that reign was 1s. 6d., that of a white one 1s. The former may have been considered smarter, or the coating of paint might be employed as a preservative. (See *Archæol.*, vii. 46.)

(2) "De arcubus et sagittariis pro expeditionem guerræ Galliæ providendo." (Rymer.)

(3) "Jactus lapidum, lignorum, ferri, pilam manualem, pedivam, et bacularem, canibucam, et gallorum pugnam." (Rymer, A.D. 1363 and 1365.)

(4) Rymer, A.D. 1392.—Rastall's *Statutes*, sub an.

Henry IV. issued orders that the arrowsmiths should point their arrows better than they had hitherto done. In this reign occurred the spirited action at Homildon Hill (1402) between the Scots and English. The victory was achieved entirely by the archers of the latter, so that it was unnecessary for the men-at-arms to draw a sword. (1) The Douglas, enraged at seeing his men falling around pierced by showers of arrows, rushed to the front, accompanied by other nobles and knights, all in complete armour. But he found that the English arrows were too sharp, and discharged with such force that no armour could resist them; and after being severely wounded, he was taken prisoner, and all his brave companions were either killed or made prisoners.

> "On Holy-rood day, the gallant Hotspur there,
> Young Harry Percy, and brave Archibald,
> That ever valiant and approved Scot,
> At Holmedon met,
> Where they did spend a sad and bloody hour."
>
> *Hen. IV.*, Part I., i. 1.

The succeeding reign of Henry V. is suggestive of the glories of archery. It is true that his orders had reference chiefly to heavy ordnance, as he was preparing for the siege of Harfleur, and the subsequent march across the French territory was an after-thought. In terms of characteristic piety, he gratefully acknowledges the merits of his archers. In the preamble of an Act (1417) he thus expresses himself:—

"Deus nobis, non nostris meritis, sed sua ineffabile

(1) "Per omnino benedictus Deus, qui nobis dedit victoriam, non in manu procerum et dominorum, sed mediocrium pauperum architenentium." (Otterbourne, p. 237.)

Bonitate, inter cæteros, per Sagittarios nostros, suis Sagittis, gratiam atque Victoriam Inimicorum nostrorum multipliciter impedit."(1)

A statute of Edward IV. recites that, amongst other ordnance, "Bowes and Arrowes be most special requisite and necessarie."(2)

In the fourteenth year of his reign, 1,000 English archers were sent to the assistance of the Duke of Burgundy, and each one was to receive 6d. per diem.(3) In the seventeenth year, a reminder as to unlawful games was put out: "Whereas, by the laws of this land, no person should use any unlawful games, &c.; but that every person strong and able of body, should use his bow, because that the defence of this land was much by archers," &c.(4)

The figures on Plate X. are copied from a MS. of the fifteenth century. (British Museum, Cott. Lib., *Julius*, E. 4.) The standard is that of Richard Beauchamp, Earl of Warwick. We obtain a good representation of the costume of a long-bowman, and the manner in which the pavis or mantlet was supported.

On the war taking place with Scotland, seven years after this, Edward provides both ordnance

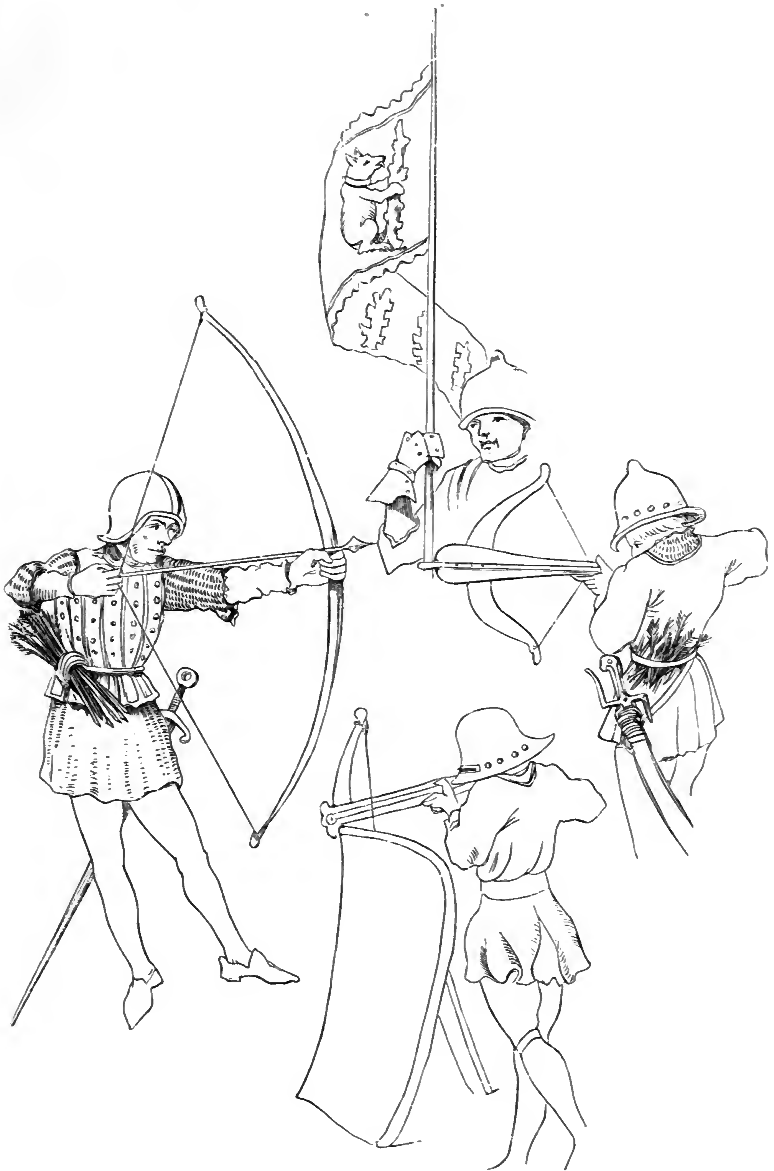
(1) *Statutes of the Realm*, 5 Hen. V.

(2) Rymer, *sub anno* 1471.

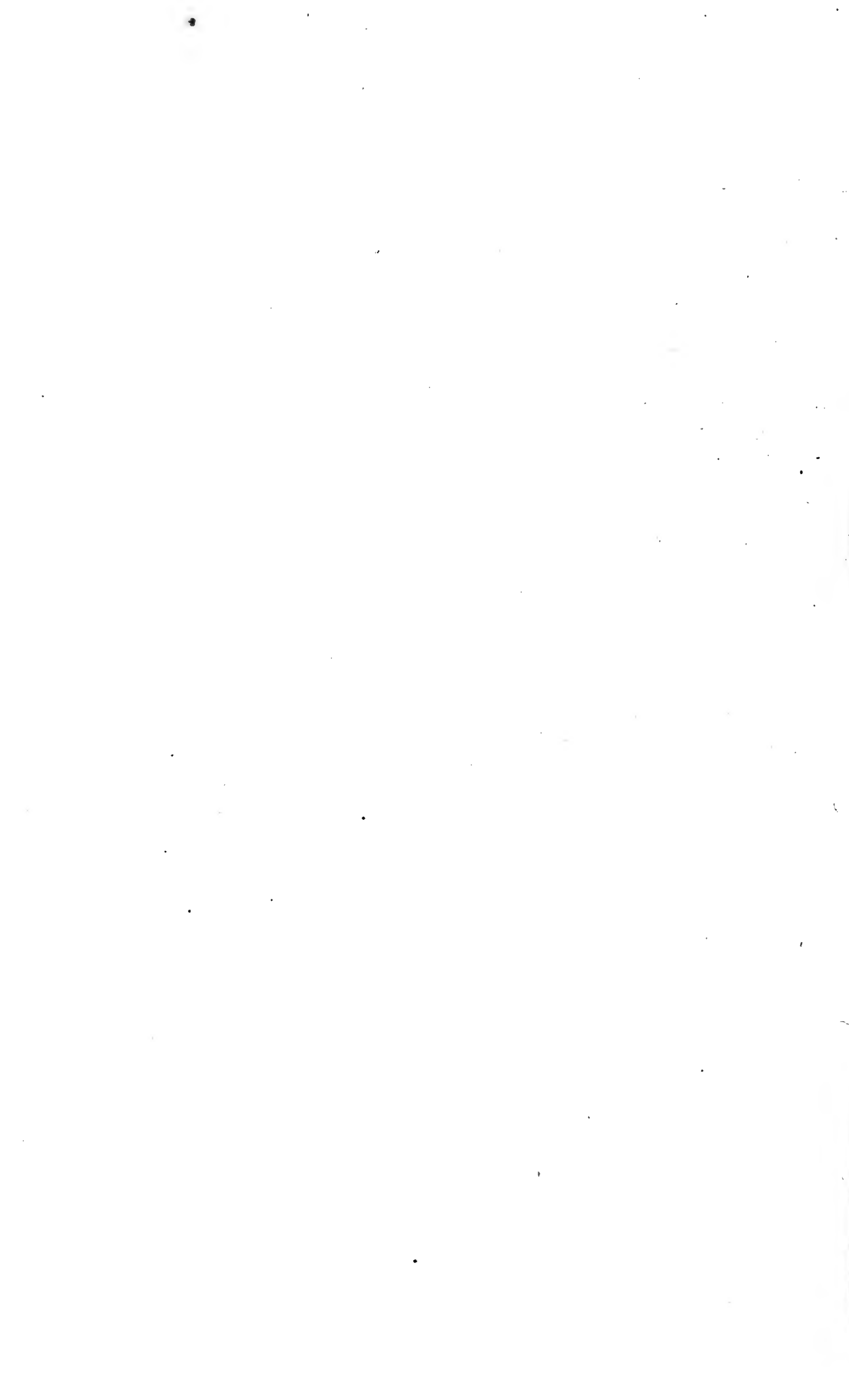
(3) *Ibid.*, A.D. 1474.—In the precept for the payment of these men, the expression "architenentium" occurs. "Duo mille Hominum *Architenentium* quilibet ad vid. per diem," &c. This might include the bearers of long and of cross-bows, but in the same year the fletchers are ordered to make nothing but "sheaf arrows," which is evidence of long-bows only being used. (See Rymer.)

(4) *Statutes of the Realm*, by Record Com., ii., p. 462.

No. 10.



Crossbow-man, Pavoiser, and Archer; also the Standard of Richard, Earl of Warwick. (From a MS. of the Fifteenth Century.)



and archers; but he directs that all workmen who might be useful for artillery should be preferred; so that although the use of artillery was gaining ground, yet that of the bow and arrow was not neglected. (1)

Archery never interested the popular mind of Scotland. Bows and quivers were in vain recommended to her peasantry by repeated statutes; spears and axes seem universally to have been used instead of them. The mace, also, was much employed in the Scottish army. The old poem on the battle of Flodden mentions a band of Scots,

Archery in Scotland.

> "Who manfully did meet their foes
> With leaden mauls, and lances long."

At the battle of Nevil's Cross, Froissart draws a distinction in favour of the English archers, as superior to the Scotch; (2) and in the Scotch campaign of 1388, when a great army of Scotch lancers and archers was arrayed, he remarks: "Mais, tant que du métier de l'arc, Escots s'ensonnoient petit; ainçois portent haches chacun sur son épaule, et

(1) "Super Invasione Scotorum de providendo. — Bumbards, canons, culverynes, fowelers, serpentynes, and other canones whatsoever, and powdered sulphurs, saltpetre, stones, iron, lead, and all other stuffs (stuffuras) necessary and fit for these canons; also crossbows and drawing for them, bows, arrows, bowestrenges, langdebeves,* lances, gleyves, and mallets," &c. (Rymer, A.D. 1481.)

(2) "Lors commencèrent les archers d'un côté et d'autre à traire: mais le trait des Escots ne dura point grand' foison. La étoient ces archers d'Angleterre habiles et legers, et qui traioient par art et par avis, et de tel ravine que grand rideur étoit à regarder." (i. 254.)

* A spear whose blade resembled in shape the tongue of an ox.—"Lingua bovis, hastæ seu spiculi species. 'Icellui Perrinet s'en ala en la ville de Hebonniares atout une guisarme ou langue de bœuf. Ung baston appellé javeline ou langue de bœuf.'"—*Lit. remiss. an.* 1441, *in Reg. Char. reg.* (Du Cange.)

s'approchent tantôt en bataille; et de ces haches donnent trop beaux horions." (ii. 720.)

James I. of Scotland endeavoured to promote the practice of archery among his subjects, having doubtless had many opportunities of witnessing the dexterity of the English archers during his captivity. In his first Parliament, in 1424, immediately after his return to his own country, an Act was passed which decreed that every male of the age of twelve years should be trained to archery; that marks were to be set up in districts, especially near parish churches, where practice was to take place on holidays, and fines to be imposed for non-attendance.(1) The Scots, however, relied more on their spearmen, and preferred the games of golf and foot-ball to acquiring dexterity in the use of the long-bow. Some of the Acts direct that yeomen who cannot handle the bow, should be well furnished with targes of hide or wood, "to resist the shot of the English.(2)

Richard III. dispatched 1,000 archers as auxiliaries to the Duke of Brittany;(3) and at Bosworth

(1) Jacobi I., 1424.

"Item,—It is ordanyt that all men busk (prepare) thame to be archars fra thei be xii. yeres of eilde (age). And that in ilk x*li* (£10) worth of lande ther be maid bow-merkes, and specialy nere paroche kirkes quhar (where) opone holy dais men may cum and at the lest schute therf about and haif vsage of archary. And quha (whoever) sa vsis not the said archary the lorde of the lande sal raise of him a wedd (pledge or fine), and gif the lorde raise not the saide payne, the kinges shref or his ministers sall raise it to the king." (*Scots Acts*, edit. by Thomas Thompson, ii., p. 6.)

(2) *Ibid.*, pp. 100, 132.—*Vide Archæol. Scot.*, iii. 248.

(3) "Mille hominum sagittariorum." (2 Rich. III.)

Field he relied greatly on his archers, and placed them in advance of the centre. And Henry of Grafton, speaking of this battle, says: "How quickly the archers bent their bows and frushed their feathers; how readily the billmen shook their bills and proved their staves."(1)

Decline of Archery.

And now we begin to perceive signs of the decline of the long-bow. The termination of the struggles of York and Lancaster, and the more settled aspect of affairs, naturally induced more luxurious habits. Henry VII. issued a proclamation against cross-bows, but not, apparently, with the same humane motives which instigated the Lateran Council. It stated that "the long-bow had been much used in this realm, whereby honour and victory had been gotten against outward enemies, the realm greatly defended, and much more the dread of all Christian princes by reason of the same."(2) That is a patriotic sentiment, but in the succeeding clause *the cloven foot* slips out, and we perceive the real cause of his Majesty's dislike to cross-bows: "And forasmuch as the King's subjects greatly delight themselves in using of cross-bows, *whereby great destruction of the King's deer is had and done*, and shooting with long-bows little or nothing used." No person hereafter was to use a cross-bow without his special licence under his "plakard signet," except he be a lord, or held freehold lands or tenements of the yearly value of 200 marks; and the cross-bow

(1) *Chron.*, ii. 153.

(2) Rymer, also Rastall's Stat., 19 Hen. VII., c. iv.

might be seized, and all apparel belonging to it, except it was discharged from within a house, for the lawful defence of the same. This king was, however, a zealous supporter of archery, and his eldest son, Arthur, was a noted marksman; so that an "Arthur" became a proverbial expression for a good shot.

Henry VIII. was a great admirer of the martial exercise of archery, and was himself an expert and graceful bowman. The national arm was proudly represented by him at the Field of the Cloth of Gold, and he is stated to have elicited general admiration by the elegance and vigour of his archery.(1) Wolsey alludes to this circumstance in writing to the King: "Loth wold I be that your grace beyng so expert in archery, the Emperour schould have more strynges to hys bow than ye." (*State Papers*, i. 103, A.D. 1522.) Hall says, "He shotte as strong, and as greate a lengthe as any of his garde."(2)

At the battle of Flodden Field, fought September 9th, 1513, while Henry VIII. was away at the siege of Terouenne, the English archers did good service, notwithstanding that "in this batayle the Scottes hadde many great avauntagies, that is to wyth the hyghe hylles and mountaynes, a great wynde with them, and sodayne rayne, all contrary to our bowes and archers." (Ancient Account, reprinted by Haslewood in 1809.) The body of King James was

(1) "Nemo enim ipso rege (Hen. VIII.) Britannicum ingentem arcum contentius flexit; nemo certius atque validius sagittavit."—(Paulus Jovius.)

(2) *Life of Henry VIII.*, 1511, fol. 8.

found pierced with an arrow. The English were drawn up in two divisions, with two wings on each division. The Scots were in five divisions (*batailles*), at intervals of a bow-shot. A portion of them were drawn up in squares, and others "wedged-shape" (*en manière de pointe*). (1)

Three acts were also passed for the promotion of archery, and prohibiting the use of cross-bows and hand-guns, probably with the same motive as his predecessor. In the third year of his reign, aliens were forbidden to shoot with long-bows without the King's permission, and as, by virtue of this act, any man who kept a cross-bow in his house was liable to a penalty of £10, this amounted to an entire prohibition; nor might they export, sell, or exchange any bows without royal licence, under penalty of forfeiture and imprisonment. "Every man being the King's subject, not lame, decrepit, or maimed, within the age of sixty, except spiritual men, justices of the bench and assize, and barons of the exchequer, do use and exercise shooting in long-bows." Every father was directed to provide a bow and two arrows for his son, when he shall be seven years old. Masters having the charge of youths were bound to instruct them in the knowledge of shooting, until they arrived at the age of seventeen; in the case of a servant, the cost of the bow and arrows might be deducted from his wages. Young men having attained the age of

(1) See the Letter of Lord Thomas Howard in Appen. Pinkerton's *Scotland*, ii. 456, reprinted from an authentic summary of this memorable conflict preserved in the Heralds' College, London.

seventeen, were directed to buy and keep a bow and four arrows. Any parent or master neglecting this duty, for every such neglect incurred the fine of 6s. 8d.; and any servant, above seventeen and under sixty, also of 6s. 8d.(1)

Edward VI. was also a patron of archery, and often amused himself with shooting, as appears by his journal. He records with evident pride the feats of his stalwart yeomen: "There mustered before me an hundred archers, two arrows a piece, all of the guard; afterwards shot together, and they shot at an inch board, which some pierced quite and stuck in the other board; divers pierced it quite thorow with heads of their arrows, the boards being very well-seasoned timber."(2) And again: "Monsr le Mareschal (St. André) dined with me. After dinner, saw the strength of the English archers."(3)

Bishop Latimer on Archery.

The encouragement thus given to archery in high places sustained it for a time, and rendered it a fashionable amusement, but the natural progress of events forbade its continuance as a useful weapon of war. Latimer, in one of his sermons (No. 70, published in 1549), preached before King Edward, did not hesitate in forcible language to appeal for the policy of sustaining the fading glories of the national weapon: "Men of England in time past," said he, "when they would exercise themselves, were wont to go abroad in the fields of shooting, but now it is

(1) 3 Hen. VIII., c. iii.

(2) King Edward's Journal, p, 37, in Burnet's *Hist. of the Reformation.*

(3) *Ibid.*, vol. ii., pt. ii., p. 45.

otherwise. The art of shooting hath been in times past much esteemed in this realm; it is a gift of God that he hath given us to excel all other nations withal; it hath been God's instrument whereby he hath given us many victories against our enemies. A wondrous thing, that so excellent a gift of God should be so little esteemed! I desire you, my lords, even as ye love the honour and glory of God, and intend to remove his indignation, let there be sent forth some proclamation to the justices of peace; for they do not their duty. Justices now be no justices; there be many good acts made for this matter already. Charge them upon their allegiance that this singular benefit of God may be practised, for they be negligent in executing these laws of shooting."

The venerable divine was a reformer in religion, but was backward to read "the signs of the times." He failed to perceive that the increasing use of fire-arms made the bow less useful in war, and that the abolition of its practice was quietly producing a more peaceful population, and a better order of things generally.

In Queen Elizabeth's reign there is abundant mention of archers with long-bows among the quota of levies ordered by Government. In the *Lancashire Lieutenancy* many of these orders are preserved, and some printed for the first time. In 1586, for instance, "100 able souldiers" were ordered to be raised in Lancashire, "out of the treyned shott of that countie," for service in Ireland, "whereof 40 were to be furnished with calivers, 20 with bows and

arrows, and 20 with halberds, and 20 with black-bills."(1) The fire-arms being in the proportion of two-fifths in this instance; but they varied at subsequent periods. In 1588, out of 1,170 trained men in Lancashire, 700 were armed with calivers, and 80 with bows; in Cheshire, out of 2,189 trained men, there were 420 calivers, 39 muskets, and 80 bows. (2) In the same eventful year the archers are further discountenanced: "By way of amending and strengthening the forces, we have procured the greatest number of all our trained archers, to provide musketts, or at least calivers, which we judge far more serviceable." (3)

In 1596, the Government had not succeeded in effecting the desired reform in the weapons provided, to which the prejudices and the pockets of the ratepayers were doubtlessly opposed.

"We require you also yt you be before us at Burton Hill the seventh day of June next ensuyinge, bringing wth you all such armor and weapon for footemen as you stand charged wthall changeing yr bowmē into muskets and yor billmen into pycks, according to or formr direc̄cons not yet accomplished." (4)

In 1616, James I. publicly declared his pleasure,

(1) *Lancashire Lieutenancy*, p. 174.

(2) "An Abstract of the Certificates returned from the Lieuftenants of the able, trayned, and furnished men in the sev'all counties, &c., Aprill, 1588." (*Ibid.*, p. 201.)

(3) Appen. xxiv., *Orig. State Papers*, by John Bruce. (Grenville Library.)

(4) *Vide Trans. Historic Soc. of Lancashire and Cheshire*, xi. 91.

"that, after the end of divine service, the people should not be letted from any lawful recreation on Sundays, such as dancing, archery for men," &c. (1)

Charles I. was a great friend to archery, and appointed commissions under the Great Seal for enforcing the use of the long-bow. (2) He also granted a new charter to the Artillery Company, a society which was originally constituted for the promotion of archery. It appears somewhat remarkable that a levy should be made of 200 Highland bowmen, for the avowed purpose of serving with the expedition to the Isle of Ré, in 1627, "and for the better furthering to levy the said number of men in due time, we are willing for causing great remission to such Highland persons as are fugitive from our laws for criminal causes." (3) The Highlanders of that day must have paid more attention to archery than their forefathers did. John Taylor, the Water-poet, writes: "The Highlanders, or red-shanked men of Scotland, be exceeding good archers," otherwise it is difficult to understand why Charles should have had recourse to them, and at so great a distance from the point of embarkation, unless he wished to dispose of a number of *mauvais sujets*, with a chance of their not returning. Owing to contrary winds, however, they arrived too late to join the expedition, and so we are left in ignorance

(1) Somers' *Tracts*, ii. 55.

(2) Rymer, 1632-3.

(3) Letter from King Charles I. to the Privy Council of Scotland, dated Windsor, 12th August, 1627, in *Archæol. Scotica*, iii. 248.

as to the effect that might have been produced by their presence. Bow and arrows, however, formed an item in the preparations for the occasion:—

"7 Sept., 1627.—Paid to John Powell, his Majesty's fletcher, £46 4s. 6d., for shooting gloves and bracers for archers, for five of his Majesty's ships, towards the furnishing of a proportion of artillery to be sent to the Duke of Buckingham his grace, for supplying of his Majesty's army in the Isle of Retz" (*sic*). Linen and woollen bow cases were also to be supplied, and quivers of leather. (*Original Ordnance Accounts*, *penes* Mr. Pritchett, F.S.A.)

Archers in Civil War.

At the breaking out of the Civil War, bowmen are mentioned for the last time in a Royal proclamation,(1) but no longer reckoned among the *élite* of the army; and Essex issued a precept dated November, 1643, "for stirring up all well-affected people by benevolence towards the raising of a company of archers for the service of the King and Parlia-

(1) "His Majesty's Commission of Array.

"Charles, by the grace of God, &c., to our most dear cousins, Henry, E. of Huntingdon, and William, E. of Devonshire, and also to our beloved and trusty Henry Hastings, Esquire, son of the said E. of Huntingdon, Henry Skipwith, &c., Knights; Henry Hastings, of Humberton, &c., Esquires; and the Sheriff of our County of Leicester. Know ye that we . . . . have appointed you, or any three or more of you, to array and train all and every person and persons in arms, *bowmen*, &c., and to promote men-at-arms, armed *but with bows and arrows*, &c.; and to see that every such men-at-arms, armed men, and bowmen, be armed with their own, and not others' weapons," &c.

"Witness ourself the 11th day of June, in the eighteenth year of our reign.

"PER IPSUM REGEM."

(Hollings' *Hist. of Leicester*.)

ment," (1) and then we may consider that the career of the long-bow, as a military weapon, is brought to a close, having continued for more than two centuries after the effect of gunpowder had become known.

A military writer of the Civil War period tells us of a bow-shot at the siege of Devizes by Fairfax and Cromwell. "I having the guard by the river side, and standing by Sir Jacob Ashley, a bearded arrow stuck into the ground betwixt his legs. He plucked it out with both hands, and said, 'You rogues, you mist your aim!'" (2) Considering that all day and night there were "incessant peales of muskets, great guns, and mortar-pieces," this bowman's shot was about as good as any, and perhaps had the distinction of being the last of its sort recorded as discharged in actual warfare in England. In Montrose's rebellion many of the remote Highlanders continued to act as archers.

The unequal contest of the bow and arrow with the Enfield rifle—the earliest of projectile weapons against the latest—has been seen in our last China war in 1860, but will not be seen much longer. Our official report gives the following details:—"One man was slain by an arrow penetrating the chest on the left side, and twelve were wounded by arrows projected by that ancient weapon of warfare, the bow. These arrows were from four to five feet long,

(1) Rushworth.

(2) Gwynne's *Mil. Memoirs of the Great Civil War*, &c.; edited by Sir W. Scott, Bt., 4to.

feathered and pointed with iron, but none of them were poisoned or barbed. There were other and smaller arrows (two feet long) discharged from a cross-bow, which was self-loading, and fashioned not unlike a revolver-pistol, some of which had a slow match with explosive powder and bullets fixed near the point." (*Army Medical Report* for 1860, p. 384.)

Yew for Bows.

Yew was considered the fittest wood for bows, and foreign yew was much preferred to English. By a statute of Elizabeth, the price of bows of *foreign* yew was ordered not to exceed 6s. 8d., and that of bows of English yew, 2s.(1)

One of the reasons often assigned for the frequency of yew-trees in our churchyards is that the archer might never be at a loss for a bow; but among the numerous enactments promulgated with great minuteness for the encouragement of archery, there appears no statute or proclamation that directs the cultivation of the yew-tree in any place whatever.

When Henry V. was making preparations for his expedition to Harfleur, writs were directed on the 20th of April, 1415, to Nicholas Frost, bowyer, to provide workmen, at his Majesty's charge, to make and repair the King's bows; and for that purpose to procure wood, called bow-staves, from any place he thought

(1) "No bowyer to sell any man's bow of *outlandish* yew, and of the best sort, above 6s. 8d.; nor of second sort, above 3s. 4d.; nor of the coarse sort, called livery bows, being *English* yew, over and above the price of 2s., under penalty of 40s." (8 Eliz., c. 20.)—Pandarus's bow, in Homer, was made of the horns of a goat, sixteen palms long (*Iliad*, δ, v. 105).—Virgil sings of yew bows: "*taxi torquuntur in arcus.*"

proper, *excepting from the property of the Church.* (1) It appears by an ancient statute, quoted below, (2) that trees growing in cemeteries were not considered exclusively the property of the Church, and that disputes frequently arose between rectors and parishioners as to the right of ownership of them; it follows that there was no understanding that yews growing there were planted to supply "staves" for the national arm. In special cases, where trees were admitted to belong to the Church, rectors were forbidden from felling them, except for repairs of the chancel; and as Henry V. was a good friend to the Church, we may infer that yews growing in these sacred precincts were excepted from supplying the wood for the archers. (3) The constant and universal demand for

(1) Rymer, ix. 224.

(2) 35 Edw. I., A.D. 1307.

(3) The yew, as is well known, is a common ornament of our churchyards, and is almost peculiar to those localities in the British Isles. Its dark hue and perpetual verdure are fit emblems of silence and immortality. The custom is a very ancient one, dating long before the great demand for long-bows had arisen;* but it is natural to suppose, that when every person was obliged to be provided with a bow and arrows (13th Edw. I., c. 6; 3rd Hen. VIII., c. 3), and when, consequently, the general consumption of these articles rendered the material of which they were formed valuable, that the parishioners should wish to be supplied with yew for their bows, from what they might look upon as public property. The New Forest, and Brockenhurst in particular, as its name denotes, were formerly so famous for the production of yews, that it ceases to be a

* Decandolle lays it down that, of all European trees, the yew attains the greatest age; and he assigns an antiquity of thirty centuries to the *Taxus baccata* of Braburn, in Kent; from twenty-five to thirty centuries to the Scotch yew of Fortingal; and fourteen and a-half and twelve centuries, respectively, to those of Crowhurst in Surrey, and Ripon (Fountain's Abbey) in Yorkshire.—"There is a yew-tree in the churchyard of Darley, five miles from Matlock Bath, the circumference of whose trunk, at five feet from the ground, is 32 ft. 8in. Its age is computed to exceed 400 years." (Banks's *Archery Coll.*, Add. MSS., 6,314.—See also an interesting article on the "Age of Trees," in *Notes and Queries*, 1 S., iv. 401.)

yew produced in time such a scarcity in England that recourse was had to foreign countries for a supply, English yew being, however, considered inferior to that of foreign growth; and the importation of it was enjoined by express Acts of Parliament passed for that purpose. By the 12th Edw. IV., merchants trading from places where bow-staves were commonly brought, were obliged to import four bow-staves for every ton of merchandise, under penalty of 6s. 8d. to the King for each bow-stave deficient.

By the 1st Rich. III., they were bound to bring in ten bow-staves of good and able stuff, with every ton of Malmsey or Tyre wine; and bow-staves of six feet in length and upwards were admitted duty free, to encourage their importation. Yew-staves were

wonder why so few should remain to the present day. The probable reasons that occur why yews should be planted in churchyards are, that they were considered appropriate ornaments; secondly, their thick foliage might be a screen to churches, and, perhaps, to parishioners, from the violence of winds (see 35 Edw. I., quoted before); and, thirdly, that they might supply green boughs for the decoration of the church in the great festivals, a practice derived, possibly, from the Jewish custom of carrying "branches of palm-trees, and boughs of thick trees, and willows from the brook" (Lev. xxiii. 40). Evelyn (*Silva*, b. iii., c. 3) and others say that yew-boughs were used as substitutes for palms on Palm Sunday, and that in East Kent they were called palms in his day. This statement is objected to in the *Hand-book of English Ecclesiology* (p. 190), the traditional name given to the withy showing that it was used in the processions on that festival. There are seldom more than one or two yews in our old cemeteries, and they are usually found on the south side. Dr. Pegge (*Gent. Mag.*, Feb., 1780) conjectures that when the statute of 35 Edw. I. began to operate, whereby permission was given to fell trees in churchyards for repairs of the edifice, yews would be likely to be the only ones left standing, as their wood was not available for the purpose. (See "The Yew-tree," in Brand's *Popular Antiquities*, vol. ii.; Bohn.)

imported principally from the countries bordering on the Mediterranean. Spain appears to have furnished a choice material of this sort. Drayton says :—

> " All made of Spanish yew,
> Their bows were wondrous strong."—*Polyolbion*, 26.

Mention of their importation from the Hanse Towns occurs in the reign of Queen Elizabeth. (1)

To economise the supply of yew, bowyers were directed to make four bows of witch-hazel, ash, or elm, to one of yew. And no person under seventeen, unless possessed of movables worth forty marks, or the son of parents having an estate of ten pounds per annum, might shoot with a yew-bow, under a penalty of 6s. 8d.

That every man might be able to furnish himself with an inferior sort of bow, every bowyer dwelling in the cities of London and Westminster, or the

(1) 13th Eliz., c. 14: "Whereas the use of archery not only hath ever been, but also yet is, by God's special gift to the English nation, a singular defence of the realm, and an occasion of many noble victories, and both a very wholesome exercise for the health and strength of men's bodies, and a maintenance of a great number of the Queen's true subjects and artificers as bowyers, fletchers, stringers, arrowhead makers, and others of this realm, and for that among other causes of the decay of archery, one great reason is the excessive price of bow-staves, which groweth principally by the scarcity of bow-staves brought into the realm. For reformation whereof be it enacted, on the authority of the present Parliament, that all the statutes made in the xiith year of the reign of King Edward IVth, concerning bringing in of certain number of bow-staves according to the weight or value of other wares to be brought into this realm, shall, from henceforth, be duly put in execution. And be it enacted and declared that all merchant strangers using to bring wares into this realm from the East parts, as well from the three score twelve Hanse Towns, be bound to bring in bow-staves," &c.

borough of Southwark, was always to keep in stock fifty good bows of elm, witch-hazel, or ash, well and substantially made and wrought, upon pain that every of the said bowyers, who for the space of twenty days should not have the number of bows of those materials ready made and fit to be sold and used, should, for every bow wanting of that number, forfeit 10s., one-half to the Queen, and the other half to any armourer, fletcher, or maker of bow-strings that would sue for it."

All bow-staves imported into the kingdom were to be sold open, and not in bundles, to the intent that the buyers might know their qualities. (1)

Arrow Shafts.

It appears by 4 Hen. V., c. 3, that the wood of the asp was considered the best for arrows. (2) Roger Ascham (3) enumerates a variety of woods of which sometimes they were made (but these were, probably, for sporting purposes), and of these he gives the preference to ash, viz. :—

"Brassell,	Hardbeame,	Servis-tree,	Elder,
Turkie-woode,	Byrche,	Halder,	Aspe,
Fusticke,	Ashe,	Blackthorne,	Salowe."
Sugercheste,	Oake,	Beche,	

Arrow Feathers.

Arrows were feathered from the goose's wing. In Ascham's opinion, the feathers from the wing of a

(1) 3 Hen. VIII., c. 3.

(2) "Item, that the paten-makers in the realm of England, from henceforth, shall make no patten nor cloggs of timber called aspe; so that the fletchers through the realm shall sell their arrows at a more easy and reasonable price from henceforth than they were used."

(3) In his *Toxophilus, or the Schole of Shooting,* written in 1544.

grey-goose were preferable to any others for the pluming of an arrow. There is an old proverb—

> "England were but a fling,
> But for the crook stick and grey-goose wing."

There are many instances in our ancient records, where the sheriffs of different counties were directed to provide feathers for arrows. In 1417 Henry V. enjoins the sheriffs to pluck from every goose six wing-feathers, for the purpose of improving arrows; and a similar order appears in the following year.(1) In the ballad of *Chevy Chase* we read of the performance of an English archer who

> "Against Sir Hugh Mountgomerye
> So right the shaft he set,
> The grey-goose wing that was thereon
> In his heart-blood was wet."

The feathers of the goose, although probably the commonest and most serviceable, were not the only ones used in archery. In a Wardrobe Account of the 4th Edw. II. is this entry:—"For twelve arrows plumed with peacocks' feathers, bought for the King, twelve pence."(2) In the *Lytel Geste of Robin Hode*, we read:—

> "With them they had an hundred bows,
> The stringes were well ydight;
> An hundred shefe of arrows good,
> With hedes burnish'd full bryght;

(1) "De quacumque Auca (præter Aucas Brodoges [*probably sitting or brooding*] vulgariter nuncupatas) sex pennas alarum suarum pro sagittis," &c. (*De Pennis Providendis*, Rymer, *sub annis*.)

(2) "Pro xii. flecchiis, cum pennis de pavone, emptis pro Rege, xii. den." (Cotton. MS., *Nero*, c. viii., fol. 53.)—In *Test. Ebor.*, 343, John Scott, citizen and bowyer of York, bequeaths "j. wyer hatt, harnest with sylver, j. schaffe of pakok federed arows," &c. (Quoted in *Anc. Arm.*, ii. 223.)

> And every arrowe an ell longe,
> With peacocke well ydight,
> And nocked they were with white silk,
> It was a semely syght."

Chaucer, in his description of the "Squyers Yeomen," says—

> "A shef of pecok arwes, bright and kene,
> Under his belte he bar full thriftily."
> *Prol. Cant. Tales.*

Arrow Sheaves.

Arrows were reckoned by sheaves; a sheaf consisted of twenty-four arrows.(1) They were carried in a quiver slung on the right side, or at the back;(2) those for immediate use were often worn under the girdle. The heads of arrows were of iron by statute 7th Hen. IV. (1405-6), to be well boiled, brazed, hardened at the points with steel (*acerata,*) and marked with the maker's name.

The ordinary length of an arrow was half the length of the bow; and by 5 Edw. IV. (Irish Statutes) every Englishman and Irishman dwelling in England is obliged to have "a bow in his house of his own length." The "cloth-yard shaft" was a frequent designation for an arrow; in Drayton's *Polyolbion* before quoted, we read—

> "They not an arrow drew,
> But was a cloth-yard long."

Some of the poetical legends extend it to a cloth ell.

(1) In an indenture made between Sir James Ormond, Knt. (19 Hen. VI.), it is agreed "that all the said archers should have sheves of xl. arrows at the least." This was probably the provision for the campaign, and not carried by the archer for immediate use. (See *Archæol.*, xvii.)

(2) See Plate XIII. of the Bayeux tapestry, where the quiver is slung at the back, so that the arrows present themselves at the right shoulder.

Lord Verulam, in his history of Henry VII., p. 96, speaking of the encounter of the King's troops with the Cornish rebels at Blackheath, says:—"Most of them (the soldiers) were shot by arrows, which were reported to be of the length of a tailor's yard; so strong and mighty a bow the Cornish men were said to draw."

Arrows, besides their ordinary usage, were sometimes employed as vehicles of combustible matter, to set on fire the enemy's works or shipping. On these occasions phials of quick-lime, or of other inflammable substance, were fixed on their heads and discharged from bows; and this was practised long after the use of gunpowder. Strutt, in his *Horda* (vol. i., pl. xxxi.), has furnished an example of this missile, from a MS. of Matthew Paris, in Benet College, Cambridge,(1) and in the Additamenta to the printed history of Matthew Paris, it is recorded that at the capture of Damietta, "we discharged fiery darts (*spicula ignita*) at them;" and further on, "phials full of lime (*phialas plenas calce*) were discharged against the enemy, like little darts from bows." (p. 1,091.) Neade (before mentioned) says he has known by experience that an archer may shoot an ounce of firework upon an arrow twelve score yards. At the siege of Harfleur, it is narrated that raging fire was hurled against the French.(2) An author publishes in the seventeenth century, what he is pleased to term *A New Invention of Shooting Fire-shafts in Long-bows.* (4to., Lond., 1628.)

(1) See *Anc. Arm.*, i. 325.
(2) See Nicolas's *Agincourt*, p. 203.

In order to test their efficacy, he recommends, "that at festival times a bull (instead of baiting him with dogs) were tied to a stake, or sheweld in with archers, conveniently placed upon a common or other spacious place, men might then make trial with their fire-shafts (a brave and warlike sport), where happily the madding of the enraged beast, besides inuring men to conflict, would teach some profitable stratagem for war." (p. 5.)

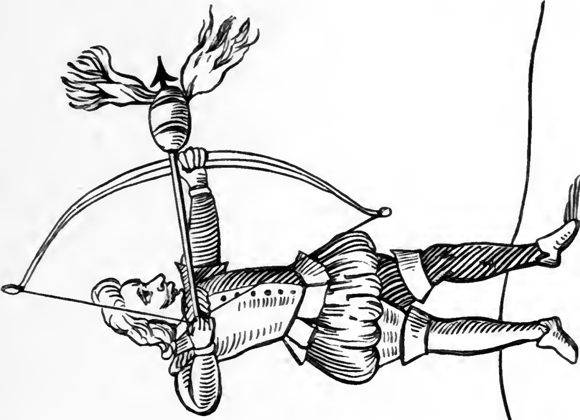
His plan is to insert "a pipe of latten" in the end of the arrow, and to have it filled with a mixture of gunpowder and saltpetre, and a small quantity of camphor. The charge is to be lighted, and to be shot in the ordinary way from the bow. Grose says, "arrows with wild-fire, and arrows for fireworks, are mentioned among the stores at Newhaven and Berwick, in the first of Edward VI."(1)

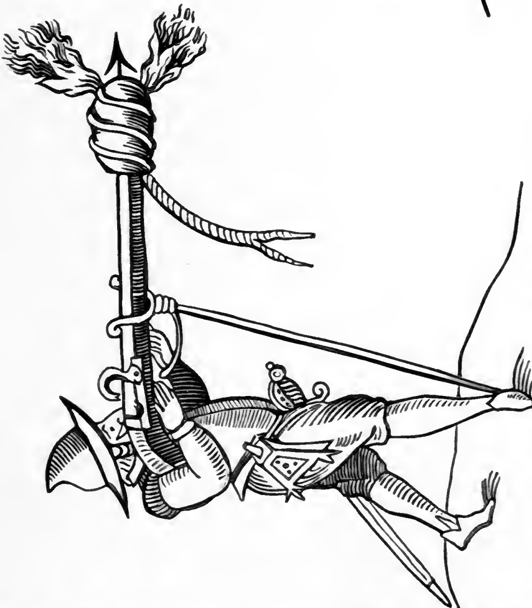
In Psalm cxx. we find the "sharp arrows of the mighty, with coals of juniper," which may point to a practice of using arrows with some burning material attached to them. Sir John Hawkins, in his *Voyage into the South Sea in* 1593 (re-published by Hakluyt Society, 1847), records the use of fire-arrows for damaging an enemy's rigging: "to teare or spoile his tackling and sayles, billets of some heavy wood, fitted to the great ordinance, are of great importance; and so are arrows of fire, to bee shott out of slur-bowes." (p. 221.)

Plate XI.—"Fireworks from gonnes and bowes," from the *Art of Gunnery*, by Thomas Smith, of Bar-

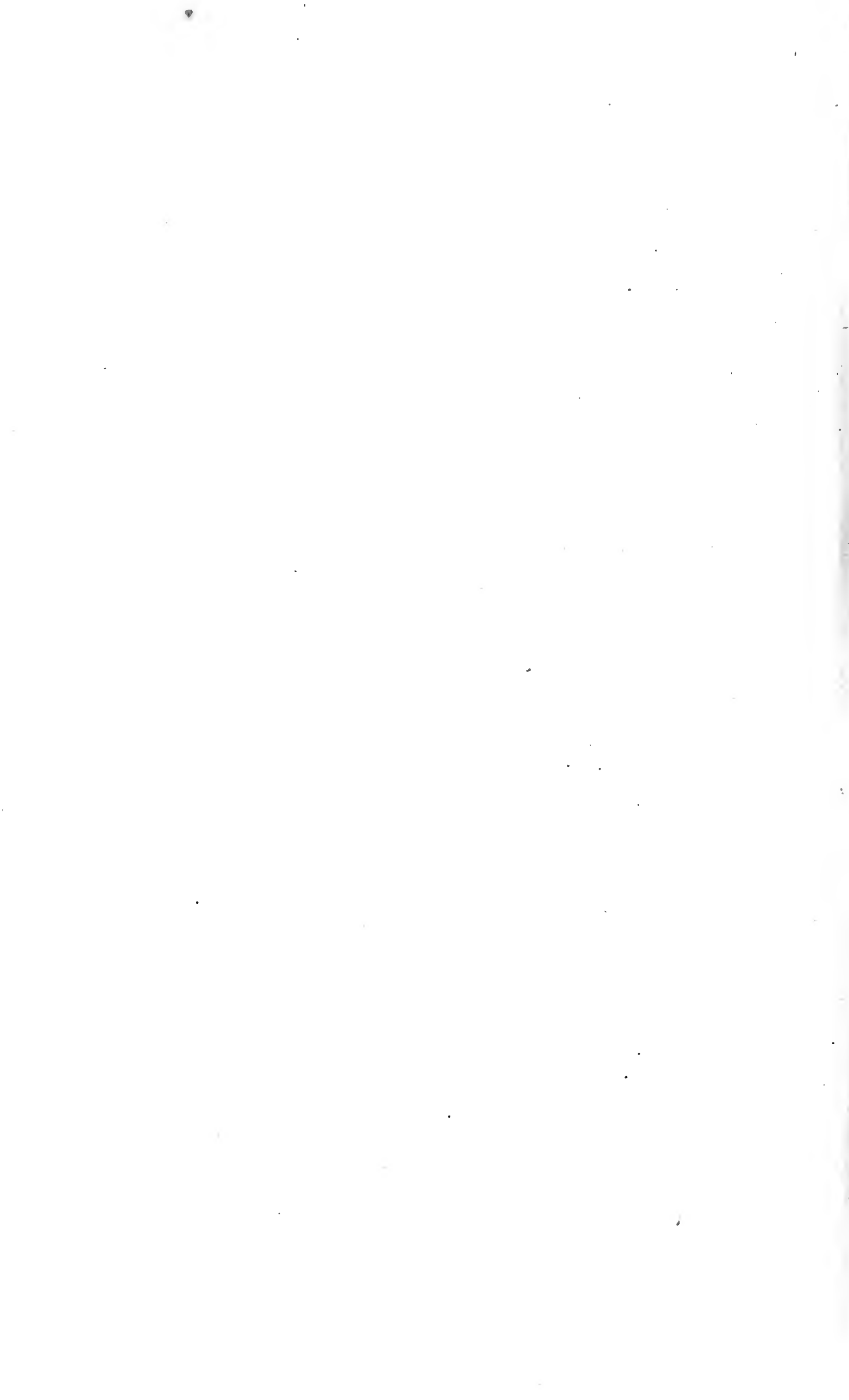
(1) *Mil. Antiq.*, ii. 272.

No. 11.





"Fireworks from Gonnes and Bowes." (From Thomas Smith's *Art of Gunnery*, 1643.)



wick-upon-Tweed, Souldier. London: Printed in the year 1643." There are some remarkable specimens of fire-arrows in the Rotunda, Woolwich.

Arrow Range.

The distance at which an arrow can be shot from a long-bow, with the best elevation of forty-five degrees, depends upon the strength and skill of the archer. It ranges from ten to twenty score yards. The exploit of one man, who shot a mile in three flights, is recorded as something very extraordinary. Shallow, in speaking of "a fine shot" (2 *Hen. IV.*, iii. 2), "he would have clapped i' the clout at twelve score, and carried you a forehand shaft a fourteen and fourteen and a half, that it would have done a man's heart good to see," evidently mentioned this distance as a feat achieved. By the 33rd Hen. VIII., no one who had attained the age of twenty-four might shoot at any mark at less than 220 yards' (eleven score) distance under a penalty of 6s. 8d. for each shot. In a MS. of the "Archers' Marks in Finsbury Fields," in the possession of the Society of Antiquaries, (1) the greatest majority of distances recorded are between ten and nineteen score yards, there being but one of twenty and three of twenty-one score mentioned.

According to Neade, the range of a long-bow was from sixteen to twenty score yards, and so quick were the archers or so slow the musketeers, that six arrows could be discharged in the time that a musket could be loaded and fired once. This fact,

(1) *Vide* "Comparison of a MS. in the possession of the Soc. Ant.," in the *Proceedings* of the Society, iv., note 47, p. 51.

however, will tend to remove any surprise that archery should have continued in force so long after the invention of gunpowder. (1)

The practice of archery was very much neglected even when the glory of the English archers was at its zenith, and Edward III. commanded the sheriffs of London to see that the male population should recreate themselves on holidays with archery. (2) The same command was repeated in the 12th Richard II. An act of Edward IV. (1465-6) directs that butts should be erected in every township, at which the inhabitants were to shoot up and down, upon all feast days, under the penalty of one half-penny for every time they omitted to perform this exercise. By the

(1) It is curious to hear a British officer, at the end of the eighteenth century, recommending the re-introduction of bows and arrows; a fact which assures us of the miserable practice of musketry in those days. This will be found in the *Memoirs of the Life of the late Charles Lee, Esq.*, Lieut.-Colonel of the 44th Regiment, Colonel in the Portuguese Service, &c. (8vo., 1792.)

"I still wish," he writes, "that pikes could be introduced, and I would add bows and arrows.

"1. Because a man may shoot as truly with a bow as with a common musquet.

"2. He can discharge four arrows in the time of charging and discharging one bullet.

"3. His object is not taken from his view by the smoke of his own side.

"4. A flight of arrows coming upon them, terrifies and disturbs the enemies' attention to his business.

"5. An arrow sticking in any part of a man, puts him *hors de combat* till it is extricated.

"6. Bows and arrows are more easily provided anywhere than muskets and ammunition." (p. 316.)

(2) A.D. 1349. The penalty incurred was imprisonment at the King's pleasure. The words of the letter are "*arcubus et sagittis vel pilettis aut boltis.*"

repeated entries in churchwardens' accounts for the expenses of erecting these, we may infer that they were erected in or adjacent to the churchyards in the country. It appears that they were made of turf.(1) In London a large space was reserved for the practice of archery, and it has already been stated that Charles I. issued a commission, in the eighth year of his reign, to prevent the fields near London being so enclosed as to prevent the necessary and profitable exercise of shooting, and also to lower the mounds where they prevented the view from one mark to another.

Immunity to Archers.

As an encouragement to archers, it was laid down by an act of Henry I., c. 88, that if any one in practising with arrows, or with darts, should by accident kill another, it was not to be visited against him as a crime. The same immunity was confirmed in after years by Henry VIII., who, amongst other privileges granted by him in the twenty-ninth year of his reign to the Artillery Company, decreed that if any person passing between the shooter and the mark be killed, it shall not be murder, provided the archers have first called out "Fast" (meaning, of course, "Stand fast"). (2)

That young archers might acquire an accurate eye, and a strength of arm, none under twenty-four years

(1) For instances, see "Archery," in Brand's *Popular Antiquities*, ii. 391.

(2) At the present day, it is customary at Blackheath for the players at golf, before striking, to call out "Fore" (short for "before"), as a warning to stragglers, not that there appears any immunity in case of accident in consequence of the notice.—The Blackheath Golf Club is stated to have acquired its title of "Royal" from the fact of Charles I. having enjoyed the amusement there.

of age might shoot at any standing mark, except it were a "roaver," and then he was to change his mark at every shot, under the penalty of fourpence for any shot made contrary to this regulation.

Ascham informs us that the marks were termed "butts, prickes, and roavers." The "butt" was a level mark, at a moderate distance; the "pricke" was a "mark of compass," but certain in its distance; while the "roaver" was a mark of uncertain distance. Edward VI., in his journal, says, "I lost the challenge of shooting at rounds, and won at roavers." The first we may understand as being shots at targets or any similar fixed objects, at a measured distance; the latter any objects, at uncertain distances, such as a tree, a gate, or any given field object that occurs. The term seems to be drawn from the roving of the shooters from one object to another. "The Cornish men," says Carew,[1] "are well skilled in near shooting, and in well-aimed shooting; the butts made them perfect in the one, and the roaving in the other; for the prickes, the first corrupters of archery, through too much preciseness, were formerly scarcely known, and little practised."

Archery supplied the means of employment to a great number of hands. Bowyers, fletchers, string and arrow-head makers, were all so many different trades; and in order that distant counties might be furnished with these important artificers, if they were not freemen of the city of London, they were liable to be

[1] *Survey of Cornwall,* 1602, b. i., p. 73; quoted in Strutt's *Sports,* b. ii., ch. i.

sent to reside in any part of the realm where their services might be deemed requisite, under a penalty of forty shillings for every day's neglect.[1] For foreign garrisons in the time of Edward II., one artificer or armourer, styled "artillator," was appointed.[2]

Long-bows were protected from the weather in cases, a fact which may have materially influenced the success of the English at Crecy. Shakespeare alludes to this custom, in making Falstaff apply the term of "a bow case" to "Prince Hal" (1 *Henry IV.*, act ii., sc. 4). Bow-strings, according to Ascham, were usually made of hemp, others of flax or silk.[3]

To have "two strings to one's bow" was, as may be supposed, a very necessary precaution. "If a string break the man is lost," wrote Ascham; and a law of Charlemagne, issued A.D. 813, enjoins the double provision. "Et ipse comes provideat quomodo sint parati, milites aut arcum cum duabus cordis." (*Capit. Reg. Fr.*, a S. Baluzius, 509.)

Costume of Archers.

Archers were sometimes encased in armour; generally they were but partially protected with an iron head-piece and a padded coat; often they were unprovided with any personal defence. Wace gives us a graphic description of the Norman archers

[1] 3 Henry VIII., cap. 3.

[2] "Item ordinatum est, quod sit unus *artillator* qui faciat ballistas, carellos, arcos, sagittas, lanceas, spiculas; et alia arma necessaria pro garisonibus castrorum."

[3] The ancient Greek bow-strings appear to have been made sometimes of horsehair, whence they were called ἱππεία. Homer's bow-strings are frequently made of hides, cut into small thongs; so we read of τόξα βόεια in the *Iliad*, δ. (*Vide* Potter's *Antiquities of Greece*, ii. 41.)

at the time of the invasion: the costume, however, which he describes was that of all the infantry, as the archers do not appear on this occasion to have been a distinctive force, for each footman carried a bow:—

> "La gent à pié fu bien armée:
> Chescun porta arc et espée.
> Sor lor testes orent chapels,
> A lor piez liez lor panels.
> Alquantz unt bones coiriés,
> K'il unt à lor ventre liés.
> Plusors orent vestu jambais
> Couires orent ceintz et archais.(1)

To give an idea of the thickness of these garments of defence, we may cite the "Memoire," by Louis XI., for the equipment of the Francs-Archers. They were to be provided with a *jacque* of leather, with twenty-five to thirty foldings of cloth underneath.(2)

The jack (from whence its diminutive *jacket*) was a sort of quilted frock-coat, descending to the knees, and was probably an ungainly garment, of which the English appear to have had the credit of introducing, as we read in an old French author:—

> "C'étoit un pourpoint de chamois
> Farci de boure sus et sous,
> *Un grand vilain Jaque d'Anglois*
> Qui luy pendoit jusqu'aux genous."(3)

(1) "Each bowman, too, carryd a sword at his side,
Cap on head, buskins lac'd; with wrappers of hide,
Or garments well quilted, their bodies,
Their quivers, and bows to their girdles were bound."
(*The Conquest of England.* Trans. by Sir Alex. Malet, Bt., 1860, p. 39.)

(2) "Et premierement leur fault desdits Jacques de 30 toiles, ou de 25: et ung cuir de cerf, à tout le moins," &c.; quoted by Daniel, *Mil. Fr.*, i., liv. iv., ch. iv., p. 242.

(3) Coquillart, quoted in Daniel.—See also in *Promptorium Parvulorum*, "*Jakke of Defence.*"—Also *Ancient Armour*, ii. 131.

In the indenture made between Sir James Ormond, knight, before quoted, it is agreed that "all the said archers specially to have good jakks of defence, salades, swerdes, and sheves," &c.

The English long-bowmen, when exercising their ordinary vocation, had little occasion for armour, as they were not likely often to be annoyed at the same distance by the weapons of the enemy; they were consequently well adapted for those rapid movements which are generally decisive of a campaign. Archers were, however, sometimes intermixed with cavalry; (1) they then required the protection of armour, and they appear in many illustrations of the thirteenth century defended by hauberk and helm. (2)

Cross-bowmen came oftener into closer contact with the enemy; they were in the van of the battle, "balistarii semper præibant," says Matthew Paris, (p. 248), or they were posted on castle-walls or in defiles, where armour was more requisite for them. (3)

St. Remy gives a description of the appearance of the English archers at the battle of Agincourt: "The greater part of whom," he says, "were without armour in their doublets (*pourpoints*), their hosen loosened, having hatchets and axes hanging from their girdles, or long swords, some with their feet bare, some wore *hamettes*, or caps of boiled leather, and some of wicker-work with iron crossed over on

(1) "Viri autem sagittarii gentis Anglorum equitibus permixti." (Matthew Paris.)

(2) See *Ancient Armour*, i. 199.

(3) *Ibid.*, Plates No. xlix., p. 201; and No. l., p. 205, in vol. i.

the top" (*sur lesquels avoit une croisure de fer*). ([1]) In addition to the weapons enumerated above, the French author, Laboureur, says that a great number of his countrymen were wounded by the English archers "using a new kind of weapon unknown to us, which were leaden mallets, by which they were beaten down." ([2]) Mallets were, however, common enough in France long before. The well-known revolt of the "Maillotins" of Paris took place in 1382.

In the curious MS. printed in Grose's *Ancient Armour* (ii. 273), we obtain a description of the equipment of an archer *temp.* Elizabeth, and we learn what was the opinion of the value of the bow at that time: "Let every man have a brigandine, or a little cote of plate, a skull or hufkyn, a mawle of leade of five foot in length, and a pike, and the same hanging by his girdle with a hook, and a dagger, &c. &c. None other weapon may compare with the same noble weapon," *i.e.*, the bow.

The practice of our archers in warfare when they had "expended all their artillery," or, in other words, when they had shot away all their arrows, was to throw down their bows and seize their axes or any other weapon which they carried about them, and make a rush upon the enemy; and this onset appears to have been very effective: sometimes they even wrested the weapons from the enemy's hands.

The French, at the battle of Coutances, in 1356,

([1]) Ch. lxii., p. 9. (Edit. Buchon.)
([2]) p. 1,000.

under Raoul de Reneval, adopted a successful policy. The English archers commenced the attack. The French men-at-arms dismounted from their horses, and remained passive, contenting themselves with warding off the arrows with their pavises and shields. At length the English had shot away all their arrows ("cils archers eurent employé toute leur artillerie"), and had no other resource but to come out from their strong position and attack the French men-at-arms, who were in complete armour, and were drawn up in a line, "au long d'une haie." Then stepped forth the French archers and shot at the English, and they gathered up the English arrows and returned them against the enemy: "Lors commencèrent les archers François à traire moult vîtement et à recueiller sajettes de toutes parts, car grand'foison en y avoit sur les champs." The English and Navarrese were entirely discomfited, and their commander, Godfrey de Harcourt, was killed.(1)

At Agincourt, we find that as soon as the English archers had exhausted their arrows, they threw aside their bows, and fought with the swords, bills, lances, and hatchets, with which the field was covered.(2)

In a levy of men for Ireland in Queen Elizabeth's time (A.D. 1574), it was directed that "every archer should have a sheaf of arrows and a steel cap or a skull, a sword, and a dagger."(3) Again, in 1577, "in the makeinge readie of ccc. men within one

(1) Froissart, i. 365.

(2) Chronicler A., St. Remy, p. 92; and Monstrelet, quoted in Nicolas's *Agincourt*.

(3) *Lancashire Lieutenancy*, 63.

howers warninge, within the countie of Lancaster," we are presented with the "*Rates of the Furniture of one Archer:*" "His apparell allowed as one pick" (the same as one pike-man), "xxxvij$^{s.}$ ij$^{d.}$; his vew (yew) bow, v$^{s.}$; his sheafe of arrowes, and a case to the arrowes, iij$^{s.}$ iiij$^{d.}$; his coat of plate, xiij$^{s.}$ iiij$^{d.}$; his sworde, dagger, and sworde girdle to the same, viij$^{s.}$; his shoutinge (shooting) gloue, bracelett, and strenge (bowstring), xij$^{d.}$; his skull, and Scottish capp to cover the same, iij$^{s.}$ iiij$^{d.}$" (1)

A bracer of ivory, (2) probably of English or Scotch workmanship, of about the latter end of the sixteenth century, is represented in Plate XII. It bears the arms and motto of the Gordons, and is in the possession of Sir William Noel Paton, R.S.A., Scotland.

"Men in old times," says Ascham, "used other manner of drawing than we do. They used to draw the bow at the breast, to the right pap, and no further." We learn from Homer that this was the Grecian mode of drawing the bow; (3) and the Amazons are said to have derived their name from the fact of their cutting off the right breast, that it might offer

(1) *Lancashire Lieutenancy*, 89.

(2) "Upon his arme he had a gai bracer." (Chaucer's description of the Squire's "Yeoman:" *Prol. Canterb. Tales*).—"A bracer serveth for two causes," says Ascham; "one to save his arme from the strype of the stryrge, and his doublet from wearing; and the other is, that the stringe gliding sharplye and quicklye off the bracer, may make the sharper shot. A shooting-glove is chiefly to save a man's fingers from hurting; that he may be able to bear the sharp stringe to the uttermost of his strength."—"Item, for bowys, arowys, shafts, brode-hedds, braser, and shoting glove for my Lady Anne [Boleyn], xxiij*s.* iiij*d.*" (Nicolas. Privy Expenses Henry VIII., p. 47.)

(3) Νευρὴν μὲν μαζῷ πέλασεν, τόξῳ δὲ σίδηρον. (*Il.*, *δ*, v. 123.

No. 12.

Ancient Bracer of Ivory, in the possession of Sir William Noel Paton, R.S.A., Edinburgh; it bears the arms and motto of the Gordons. Probably latter end of Sixteenth Century.

no impediment in shooting.(1) The practice, however, of drawing from the ear is very ancient. Procopius says the Persians did so(2); and the Assyrians appear to have drawn behind the ear, as the paintings on the walls of ancient Thebes bear witness. The Norman archers, in the Bayeux tapestry, are represented shooting their arrows from the breast, and their bows are short. There are plenty of instances of this mode of archery in the illustrations of mediæval works. It does not appear at what precise period the English archers adopted the preferable mode of drawing from the ear, but it must have been contemporaneous with their assumption of the long-bow, and this was the secret of their superiority, for its development necessitated a vigorous and practised subject, acquired by patient and laborious training, protected and encouraged by early legislative enactments. The provision of the statute 5 Edward IV. required that every male subject should keep in his house a bow of his own height, and as the arrow was half the length of the bow, this would give an arrow of a yard long to those who were six feet high. Modern archers will testify to the difficulty of drawing this to the point, and to the impracticability of doing so when the right hand is held at the breast.

The following anecdote, bearing on this subject, is recorded by the Hon. Daines Barrington, in his

(1) From *α priv.*, and *μαζὸς*, without a breast.

"Unum exacta latus pugnæ pharetrata Camilla."

(2) *ἕλκεται δὲ αὐτους κατὰ το μέτωπον ἥ νευρὰ,*
παρ' αὐτὸ μάλιστα τῶν ὥτων, τὸ δεξιὸν.

(*De Bell. Pers.*, i. 2.)

Observations on the Practice of Archery in England: —"Several years ago, there was a man named Topham, who exhibited most surprising feats of strength, and who happened to be at a public-house, near Islington, to which the Finsbury archers resorted after their exercise. Topham considered the long-bow as a plaything only fit for a child; upon which one of the archers laid him a bowl of punch, that he could not draw the arrow two-thirds of its length. Topham accepted this bet with the greatest confidence of winning, but bringing the arrow to his breast, instead of his ear, he was greatly mortified by paying the wager, after many fruitless efforts." (*Archæol.*, vii. 64.)

Harrow School.

John Lyon, a wealthy yeoman of Preston, founded the free school at Harrow in 1590. The statutes for its management were drawn up by him with much precision, referring even to the scholars' amusements, which are confined to "driving a top, tossing a hand-ball, running or shooting." The last mentioned diversion was in a manner insisted on by the founder, who required all parents to furnish their children with "bow-strings, shafts, and brasters (*sic*), to exercise shooting." A silver arrow was annually, till within a few years, given as a prize to be shot for.

"The silver arrow is to be shot for at Harrow-on-the-Hill, the 4th of August, by the twelve following gentlemen: Mr. Thomas Swale, Mr. Owen Brigstocke, Mr. Robert Tomlinson, His Grace the Duke of Gordon, Mr. Henry Earle, the Right Honourable Lord William Gordon, the Right Honourable Lord Mount-

stuart, Mr. Clarke, Mr. Wright, Mr. H. Rooke, Mr. H. Darby, and Mr. Denham Skeet."—*London Chronicle*, July 23, 1757.

"Oct. 14, 1816.—I went to Harrow with Lady Banks: the young gentlemen told us the paragraph in the *Morning Herald*, August 3, is totally void of foundation, not for many years—archery has been discontinued, and the old butts are now sand pitts." (Miss Banks's *Archery Coll.*, Add. MSS. 6,314.)

Artillery Company.

The history of British archery would not be complete without mention of the two ancient companies, which were instituted for the special encouragement of that science, and which have survived to the present day, namely, the Artillery Company of London, and the Royal Archers of Scotland.

The inhabitants of London have always been addicted to manly sports, and from an early period a space was set apart for their prosecution. Smithfield was the Rotten Row of mediæval times, but the bowman's exercise required a wider range in a less populous district. The Finsbury, or more properly *Fens*bury Fields, (1) leading to Islington, Hoxton, and Shoreditch, offered every attraction, and were the great gymnasium of the capital, "the resort," says Pennant, "of wrestlers, boxers, runners, and football players, and every manly sport."

In 1498 (13 Henry VII.), Holinshed tells us

(1) "When the great marsh (*palus*) which waters the walls of the city is frozen over, the young men go out in crowds to divert themselves upon the ice." (Fitzstephen.)

"all the gardens which had been continued time out of mind without Moor Gate were destroyed, and of them was made a plain field for archers to shoot in." (iii. 520.)

The Artillery Ground, or Garden properly so called, of which frequent mention is made, was, however, near the locality which still survives in name as a memorial of the site—Artillery Lane, in Bishopsgate Street, stated to have been anciently a Roman military station,(1) close to what is now a very different thing—a railway station. It is described as being very "neere the Spittle" (Hospital of St. Mary), "in the parish of Stepney Heath, *alias* Stepney, Bottolph Without, Bishopsgate, and Leonard, Shoreditch."

As population increased, the householders of the villages of Islington, Hoxton, and Shoreditch enclosed some of the ground, which had hitherto been regarded as public property; and this, in the 6th of Henry VIII., produced a curious exhibition of popular feeling. "A mob, headed by a tanner, in a fool's coat, came crying through the City 'Shovels and spades! shovels and spades!' They proceeded to demolish the hedges, the ditches were filled in, and the fields reduced to their original state; after which the rioters returned to their respective homes."(2)

In a rare old work on Archery, by William Hole, in the Bodleian, there is a map of Finsbury fields. A copy of this map is given in Malcolm's *Londinium*

(1) Leland's *Collect.*, i. 61.
(2) Ellis, *Hist. St. Leonard, Shoreditch*, p. 170.

Redivivum, vol. iv., p. 16, and by it we are enabled to ascertain, with some precision, the extent of ground devoted to archery.(1) It was divided into several compartments, and studded with butts, amounting to 184, set up at tolerably regular distances, each one bearing a particular name, such as Bunhill, Robin Hood, Long Meg, Carrington, &c. They appear to have been embraced in an area (according to Mr. Williams' computation)—assuming Bunhill, the most southern station, to have been somewhere about the south end of the present Bunhill Row—of a little more than one mile and a quarter from north to south, and from three-quarters of a mile to a mile from east to west. From 1498 till about the reign of Charles II., Finsbury fields exhibited the singular appearance represented in Hole's map. All traces of their former appropriation have now, of course, entirely disappeared.(2)

(1) "Comparison of a MS. in the possession of the Society of Antiquaries, containing a List of the Archers' Marks in Finsbury Fields, with William Hole's Map of the same fields laid out as Archery Grounds. By John Williams." Printed in *Proceedings Soc. Ant.*, vol. iv., No. 47.

(2) Mr. Tomlins gives an account of some of the marks which existed a few years since:—"Two of them are still in existence, the one at the end of Dorchester Street, Hoxton, on the east side of the New North Road, near the Canal Bridge; the other is fixed and preserved in the brickwork of the Canal Bridge, above the towing-path, on the London or south side of the canal, bearing the inscription 'Scarlet.' Two other stone-rovers have been destroyed within the last fifteen years, viz.,—one that stood in the Britannia Fields, near the pathway, Canal Bridge, and a few yards northerly from where the porters' resting-block recently stood, was, in the summer of 1842, broken up by some carpet-beaters, who made use of the fragments to support their poles withal; and the other stone rover, that stood in what was recently the enclosed field in the New North

Henry VIII., in 1537, granted by patent to "Sir Crystofer Morres, Master of the Ordnance, Anthony Knevett, and Peter Mewtes, Gentlemen of the Privy Chamber, *Overseers of the Fraternity or Guild of Saint George*, and that they shall be Overseers of the Science of *Artillery*—that is to wit, for *long-bows, cross-bows*, and *hand-guns*. Sir Crystofer Morres, Cornelys Johnson, Anthony Anthony, and Henry Johnson, to be four Masters and Rulers of the said Fellowship of Artillery for ever, during their lives; and their successors Masters and Rulers, always being Englishmen or denizens, may begin, found, and establish a certain Fraternity of Saint George, with full power to admit all manner of honest persons whatsoever they be, as well being English subjects or strangers, denizens or not denizens; and that the Masters and Rulers, and such Brethren as they shall elect, shall be one body and commonalty corporate, having succession perpetually by the name of the Masters, Rulers, and Commonalty of the Fraternity or Guild of Artillery of long-bows, cross-bows, and hand-guns; and that, with their assistance, they shall have power to elect among themselves four Under-Masters and Rulers, to take charge of all property of which the Fraternity or Guild may become possessed of."

This patent is copied in a little work entitled

Road, was either removed or buried, about five years since, in constructing the buildings in Arlington Square; and the exact place where this rover stood, is now the garden of the house No. 24 in Arlington Street. It bore the letters F. G., and the date 1679." (*A Perambulation of Islington*, 1858.)

A Compendium of Military Discipline, by John Blackwell, Adjutant and Clerk of the Honourable the Artillery Company, in the year 1726, and in Highmore's *History of the Artillery Company*, published in 1804. A committee appointed by the Court of Assistants to search for the charters and patents of Henry VIII., James I., and Charles I., made their report in 1754, that they had diligently, with the assistance of the Clerk of the Rolls, searched the records kept in the chapel there, and found enrolments of a letter from James I., and another from Charles I., which were the same as those stated in Blackwell's *History;* but that before the time of Henry VIII., and afterwards, all the charters granted by the Crown had not been regularly enrolled, nor any indexes of them preserved, but were now deposited in the Rolls Chapel, and were not likely to be discovered without infinite pains and labour. (*Court Book*, E., Highmore, p. 225.) It may be added that, on a search at the Public Record Office recently made (through the courtesy of the officers there), no tidings could be had of them. From the preamble we may infer that, previous to this date, there had existed an association or club, the first three names being recited as "Overseers of the Fraternity or Guild of Saint George."(1) The patent then goes on to state that "of his Majesty's abundant grace,

(1) The Company of Armourers was incorporated by Henry VI., in the first year of his reign, under the name and designation of "The Brothers and Sisters of the *Fraternity or Guild of St. George* of the Mystery of the Armourers of the City of London."

he has granted to the aforesaid well-beloved servants, for the better increase of the defence of the realm, and maintenance of the science or feat of shooting in long-bows, cross-bows, or hand-guns, that they may from time to time hereafter and perpetually exercise their shooting at all manner of marks and butts, and at the game of the Popyemaye,(1) and other game or games, as at fowl and fowls, as well in our City of London, the suburbs of the same, as in all other places in the realm of England, Ireland, Calis, and the Marches of Wales (our forests, chaces, and parks, without special warrant, and the game of the heron and feysaunt, within two miles of any of our manners, castells, or other places where we shall fortune to be or lye, for the time only excepted and reserved)." Permission was also granted them to retain the aforesaid weapons in their houses; and their servants might bear the same without penalty, so long as they shall not shoot at any manner of fowl. "That no other Fraternity or Guild for the same purpose shall be permitted without the licence of the Masters and Rulers of the said Fraternity. The members to be allowed to use and wear any manner of embroidery in their gowns, jackets, coats, and doublets; and any manner of silks, as velvet,

(1) Undoubtedly, the popinjay is intended—an artificial parrot. Shooting at the popinjay (*papegaye* or *papegault*) was an ancient sport, practised in most countries of Europe. (See *Mil. Fr.*, i. 379; also, *Anc. Arm.*, iii. 530.) It is scarcely alluded to by Fosbrooke and Strutt, but is admirably described by Sir Walter Scott in *Old Mortality*, when the Sheriff of Lanark is described as holding the *wappenschaw* of the county.—Weber's *Der Freischütz* opens with a scene of shooting at the popinjay.

satin, and damask (the colours of purple and scarlet only excepted); and all furs not above furs of martins. That they should not be empannelled or compelled upon any manner of quest or jury. That in shooting, when they shall pronounce the word 'Fast,' if any person passing between them and the mark shall be killed or otherwise hurt, so that the same be a usual and known mark, he shall not suffer death, nor be impeached, troubled, or imprisoned for it; and furthermore that these Letters Patent be passed under the Great Seal, without fee or fine, in the Chancery or Hanaper Office."

These privileges and concessions were very great in the time when game laws were so very stringent, and when sumptuary laws laid down every material which a subject was entitled to wear. Their place of meeting was in Tassel Close,(1) now Artillery Lane, Bishopsgate Street Without, which ground anciently belonged to St. Mary's Spital.(2)

"Then is there a large close called Tassel Close, for that there were tassels planted for the use of cloth-workers, since letten to the crossbow-makers, wherein they used to shoot for games at the popinjay: now the same being enclosed with a brick wall, serveth to be an Artillery Yard, whereunto the gunners of the Tower do weekly repair, namely, every Thursday; and there, levelling certain brass pieces of great artillery against a butt of earth made

(1) The Tæsel of the Anglo-Saxons—*Dipsacus Fullonum*, or Fullers' Teasel of Naturalists—so called from being used in dressing cloth.

(2) *Stowe*, by Howes, p. 744.—Maitland, ii. 1,162, 1,175.

for that purpose, they discharge them for their exercise." (Stowe, p. 63.)

"20th April, 1586.—In the afternoon we walked to the old Artillery Ground, near the Spitalfields, where I never was before, but now, by Captain Deane's invitation, did go to see his new gun tryed, this being the place where the officers of the Ordnance do try all their great guns." (Pepys' *Diary*.)

In 1586, "the City of London was greatly troubled, and charged with continual musters and levying of soldiers." The fear of the Spanish invasion was rife, and the terrible effect of the memorable siege of Antwerp by Parma on the burgher population stimulated the Londoners to the exercise of arms. "Certain gallant, active, and forward citizens, having had experience both abroad and at home, voluntarily exercised themselves, and trained up others for the ready use of war: so as within two years there were almost three hundred merchants and others of like quality very sufficient and skilful to train and teach common soldiers. They met every Tuesday in the year, and had charge of men in the great camp" (probably at Tilbury), "and were generally called Captains of the Artillery Garden."(1)

These captains were the commanders of the City trained bands. When all alarm had passed away, the volunteers discontinued their exercises, and the Artillery Garden was only occupied, as we have just seen, for the practice of the gunners of the Tower, and ridicule was cast upon that which had lately been

(1) *Ibid.*

regarded as of vital importance. The stage is always the exponent of the popular feeling of the day, and the marchings and counter-marchings of the City Train-Bands are admirably ridiculed by Fletcher in *The Knight of the Burning Pestle.* In the following quotation we may gather that a subscription was paid to the Artillery Garden :—

"*Stephen.* I protest, as I am a gentleman, but no soldier, indeed——

"*Well-bred.* No, Master Stephen! As I remember your name is entered in the Artillery Garden.

"*Stephen.* Ay, sir, that's true. Cousin, may I swear, as I am a soldier, by that?

"*Ed. Kno'well.* Oh, yes, that you may; *it's all you have for your money.*" (*Every Man in His Humour;* Act iii., scene 2.)

In 1605, James I. granted a patent, reciting that "albeit sundry very good and laudable statutes, ordinances, and proclamations had been made both in our time, as well by ourselves as by our most noble progenitors and predecessors, for the maintenance of archery and artillery (1) within this realm, yet sundry persons, by the enclosure of divers lands about our City of London, have plucked away from our loving subjects the necessary and profitable exercise of shooting in such fields and closes as time out of mind have been allowed to be shot in, to the great hindrance and decay of shooting, and also whereby occasion might ensue to sundry of our subjects to haunt and frequent some other kind of unlawful games, whereunto there are too many

(1) Archery and artillery are here mentioned separately, evidencing the predominance of the latter.

inclined, which our meaning is shall be in no wise suffered. For the avoiding of such enormities," he gives power to certain persons, or to any six of them, full power and authority to survey all such grounds within two miles' compass of the said city, and to cause them to be reduced in such order as they were in the beginning of the reign of King Henry VIII., and these orders might be enforced by fine or imprisonment, &c.

James I. held the same narrow views with regard to the enlargement of the city of London which Queen Elizabeth had possessed; she endeavoured to restrain all new buildings by proclamation. By virtue, however, of this patent, these privileges for archers were enforced to a late period.

There was but little martial enthusiasm during this reign, and consequently military exercises fell into desuetude; in 1610, they were revived by one Philip Hudson, Lieutenant of the Company in the Artillery Garden, being, as Stowe informs us, the prime instigator of the movement, for which no exciting cause is now apparent, unless the murder of Henri IV. of France gave rise to uneasiness in political relations abroad. The movement, however, seems to have been general, for we are told that the very boys, in mimicry of their elders, enlisted themselves voluntarily into companies, elected officers, and practised the discipline, of which the models were every day exposed to their view. The Company of the Artillery Garden was reformed, "with sufficient warrant and toleration granted to them by the

Lords of his Majesty's Privy Council." "Of whiche saide company Edward Panton was theyre first captayne, and Nicolas Speering, a marchant of this Citty, their first elected auncient or Ensigne bearer; those that were formerly of the ould Artillery Garden did good service in their owne persons and in teaching others." (1) From this revival the present Artillery Company dates its formation, and from that period until now it has existed in regular succession. The 250th anniversary was celebrated on the 17th of December, 1860. (2)

In 1614, at the end of harvest, King James appointed a general muster of horse and foot throughout England. Twenty captains, commanding 300 men each, were appointed by the City of London; and such of them as were not members of the Artillery Garden, became then admitted of that company, which at that time had grown into great estimation; many country gentlemen resorted thither to learn the exercise, so as to be able to instruct the train-bands in their own counties.

Howell relates that when the train-bands of London were performing their evolutions before James I. on a muster-day, in St. James's Fields, the King, no doubt feeling proud of the display, asked Count Gondomar, the Spanish Ambassador, what he thought of them. "He answered, that he never saw a company of stouter men and better arms in his lifetime; but then he had a sting in the tail

(1) *Stowe*, by Howes, p. 907.
(2) See *Times*, December 18, 1860.

of his discourse; for he told the King, that 'although his Majesty was well pleased with that sight at present, he feared that those men handling their arms so well might do him one day a mischief;' which proved true, for in the unlucky wars with the Long Parliament, the London firelocks did him [or rather his son] most mischief." (1)

But although there was a "revival" of military exercises in the year above named, the Artillery Company was to all intents and purposes a new formation. A committee was appointed in 1822 to investigate the antiquity and privileges of the Company, and its report was presented in 1829. Among the documents stated to have been inspected by the members at the State Paper Office, is an Order of Council dated the 3rd of July, 1612 (9 James I.), to the following effect:—After reciting a petition of several citizens of London, after the example of other states, and the precedent of other citizens theretofore exercising in arms, to be permitted to exercise in the Artillery Garden, by direction of such officers as they should make choice of, it is declared that their Lordships (the Lords of Council) do see no inconvenience, but that the said Company of Citizens might train and practise arms by instructions of Captain Edward Panton, or such others as should be thought fit, and might make choice of such officers as they should think fit, on approbation and allowance of the Lord Mayor of every such officer, but with a

(1) Burnet (Bishop), *Memoirs of the Lives of James and William,* [illegible]

proviso that the numbers of the Company should not exceed 250.

The Company obtained leave to exercise in the Artillery Ground; and in 1622, by warrant from James I., the foundation of an armoury was laid, and finished in the following year: towards the building of which, and support of the Company, the Chamber of London, in 1621 and two following years, gave £316 13s. 4d. (Highmore, p. 57.)

This ground had been used by the regular officers and gunners of the Ordnance from time immemorial, who, from instruction given to many pupils, doubtless added thereby to their fees of office. They evidently, and not unnaturally, disliked the invasion of their territory by the new-comers, and a jealousy may be supposed to have been the result. Subsequently, it appears that a petition—(according to the Report of the committee before mentioned), preserved in the State Paper Office—was presented to King James I., in 1620, by "Sir A. Moryson, Lieutenant of His Majesty's Ordnance, and Charles Reynolds, (1) Master Gunner of England, on behalf of themselves and all the officers of the Ordnance, and of all his Majesty's fee'd gunners within or belonging to the Tower of London, and of all scholars trained up in the art of artillery." It states that the Lieutenant and his predecessors, and the Master Gunner and his

(1) "1627. To John Reynolds" (probably the same person), "Master Gunner of England, for his attendance upon the proof of ordnance and powder for three months.—Item, for exercise of scholars to shooting guns at the Artillery Garden, for three months, 17s." (*Orig. Ordnance Accounts.*)

predecessors, partly by virtue of a lease from the New Hospitall (*sic*) in the 29th year of King Henry VIII. (the date of the charter before noticed), and partly by virtue of his Majesty's grant to the said Lieutenant of the Teazell Ground, or Artillery Ground, near the said Hospitall, had, beyond the memory of living man, quietly holden the said Artillery Garden, and therein trained up scholars in artillery to serve the Crown by sea or land. That the citizens of London having, about twelve or thirteen years since, obtained leave for their captains to exercise in the said Garden a company of pikes and muskets, and also, within two years then last, obtained further leave to erect at one end of the said Garden an armoury-house, the said citizens, upon that leave and extraordinary favour afforded unto them, had not only pulled down a proof-house and store-house of his Majesty, made a gate into the Ordnance way where the scholars were taught, commanded them to avoid that place, and used threats and insolence, but also petitioned Parliament to obtain a grant of the inheritance of the said Garden, and to disinherit his Majesty's; and therefore praying his Majesty's interference for the preservation of his inheritance and the advancement of his service.

What effect the presentation of the petition produced we are not informed, but it may be inferred that matters were adjusted, for the Company continued to exercise there. It was not till 1641 that the Company sought other ground, and shifted its quarters to Moorfields, "being the third great field

from Moorgate, next to the 'six windmills;'" and the reason assigned for the removal from the Old Artillery Ground was, "in consequence of the numbers of the Company having so greatly increased, the former exercising ground was not large enough to contain them," their muster being then sometimes about 6,000. The proviso, therefore, of the Lords of the Council as to numbers was not adhered to. The Company, however, occasionally resorted to the former locality, even within Strype's recollection. (Vol. iii., b. iii., p. 70.)

In 1640, the Common Council took into consideration the request of divers captains of the Company, and others exercising arms in the Artillery Garden, "that the nether part of Bunhill Field might be granted to the society for the exercise of themselves and the trained bands;" and the plot of ground was devised to Sir Peter Pindar, in 1641, in trust for the use of the Artillery Company, for a term of 139 years, as a military field, wherein to erect an armoury and other structures, but not to convert the same to any other use.(1) This lease was renewed in 1727, and the ground was estimated to contain about eleven acres.

It appears by the Minute Books of the Company, that, on the 29th of September, 1658, after negotiation with the Master of the Ordnance, an agreement was concluded between him and the Company for the

(1) Court Book, A.—The Records of the Company are said to have been seized and destroyed by the Royalists in the Civil War. The first Court Book in the Company's possession begins 21st of January, 1656.

surrender of the Company's interests in the buildings erected by it in the Old Artillery Garden, and that a sum of £300 was paid to the Company for the armoury with the court-house, and all other structures and buildings belonging to the Company, which had been erected by an order granted to the Company by the late King James and his Council, in the year of our Lord 1622.

The strength of the Company having increased, in 1674 a new armoury was ordered to be built; and a deputation was sent to the Duke of York to pray his Royal Highness to communicate the determination to the King. The estimate amounted to £2,500. A general march of the Company through the City *en grande tenue* was ordered, with the apparent intention of currying royal favour by their handsome appearance, hoping, most likely, that a contribution to the Building Fund would follow; and therefore every musketeer was directed to provide himself with a light head-piece and a plume of red feathers. The line of march was attended by a train of artillery of six field-pieces and two wagons, and twenty-four marshals, with blunderbusses and buff-coats, to attend the train.(1) It does not, however, appear that the Company obtained any substantial advantage by the march.

Charles I. granted a charter to the Company, bearing date December 20, 1633, for the preservation of their rights, as regarded the shooting at their butts as heretofore, and giving them power to de-

(1) Highmore, *ut supra.*

stroy "all enclosures, ditches, high banks and quick-sets or hedges thereupon, and the same to be reduced in such order and state for archers, as they were in the beginning of the reign of our late King James, our father of blessed memory."

The powers conferred under this charter were exercised until a late period. Considerable encroachments having been made upon the archery marks belonging to the Company, the court (30th July, 1786) ordered a notice to be sent to the occupiers of all the lands in Baumes and Finsbury Fields, between Peerless Pool towards the south, Baumes' Pond to the north, Hoxton to the east, and Islington to the west, wherein any of the marks were placed, to remove any obstruction to the Company's rights.

The Company, on its march over Baumes and Finsbury Fields, ordered the fences of a piece of ground, enclosed for about two years by Mr. Samuel Pitt, to be pulled down by the pioneers, and other obstructions were levelled. The rights of the Company were admitted, and the parties attended the next Court of Assistants, stating that nothing was further from their intentions than that of encroaching on the Company's rights, and said they would readily consent to anything in reason, which the Court might determine upon. (1)

In 1641, Charles Prince of Wales (afterwards Charles II.), Charles Frederick Count Palatine and Duke of Bavaria, James Duke of Bavaria, James

(1) Highmore, p. 396, *et seq.*

Duke of York (afterwards James II.), were entered members.

When the Civil War broke out, Gondomar's prediction was verified: the citizens of London took up arms against the King, and on all occasions, when their services were put into requisition, acted admirably as soldiers in the field. Parliament properly estimated their value, and gave the command of the City regiments to Skippon. (1) Of them Clarendon thus expresses himself: "The London trained-bands and auxiliary regiments (of whose inexperience of danger, or any kind of service beyond the easy practice of the Artillery Garden, men had not till then too cheap an estimation) behaved themselves to wonder, and were, in truth, the preservation of that army that day (at Newbury, 1643). For they stood as a bulwark and rampire to defend the rest; and when their wings of horse were scattered and dispersed, kept their ground so steadily, that, though Prince Rupert himself led up the choice horse to charge them, and endured their storm of small shot, he could make no impression upon their stand of pikes, but was forced to wheel about." (B. vii., § 211.)

We are not told that the Artillery Company took the field against the King's forces, but no doubt its members skilled in arms took part in the military measures, and the Parliament's side was decidedly the popular one in the City. Consequently we find, that from 1643 to 1654 no admissions nor

(1) Howell, *Londinopolis*, p. 398.

any exercise took place, (1) but in that latter year the Lord Mayor and the militia of London waited upon the Lord Protector to beg his leave to revive the Artillery Company, "for the better exercising of the citizens in arms, and they undertook that none but well-affected persons should be admitted into that Company; to which the Protector assented." (2) The Company then proceeded to their election, and chose Serjeant-Major Skippon their Captain-General. (3)

At the Restoration the Company was in a flourishing condition, and although the Train-bands, amounting to 18,000 foot and 600 horse, were disbanded, (4) it continued to hold its meetings. It held annual feasts till 1683, of which some of the most eminent of the nobility and citizens consented to act as stewards. As a proof of the estimation in which the Company was held, Charles II., in 1664, appointed the Duke of York its Captain-General, and many of the nobility entered themselves as members, among them Prince Rupert (who had often met the City Train-bands in the field of deadly strife), the Duke of Monmouth, the Duke of Albemarle, the Duke of Ormond, the Earl of Sandwich, the Earl of Manchester, the Earl of Anglesea, and the Lord Craven.

In 1678 party politics ran very high: it was the epoch of the now well-known epithets, Whig and Tory, and doubtless on political grounds the King thought fit to interrupt the ancient right of

(1) Blackwell's *Compendium*, p. iii.
(2) Whitelocke, *Memorials*, p. 620.
(3) Court Book, A.
(4) Strype, b. v., p. 456.

the Company in the free choice of the whole body at the annual elections, and addressed a letter, dated Whitehall, 11th February, 168½, wherein he expressed himself "well satisfied of the loyalty, good affection, and abilities of the present officers and commanders of our Artillery Company," and directed "that all those who have been employed during the last year in our said Company, shall remain and continue so for the year ensuing, unless the Court of Assistants see cause to remove them, and that the Court of Assistants should forthwith proceed to a free choice of persons fitly qualified for the supplying of such vacancies." Letters of the same purport were addressed annually to the Company during this reign and that of James II. (1) The consequence was that the numbers of the members diminished, and the Company was brought into debt.

James II. does not appear to have promoted the interests of the Company, although the Court of Assistants, in their address to him on his accession, employed the following terms of fulsome adulation:—"And your Majesty's most dutiful subjects do no longer expect mercy from heaven than while they continue firm and steady in their faith and allegiance to your most excellent Majesty."

After the Revolution, King William, by warrant under the sign-manual in the first year of his reign, restored the Company to its ancient right of annual elections of officers by the whole body, and authorised frequent exercises in the "Artillery Ground near

(1) This letter is printed in Blackwell's *Compendium*, xl.

Morefields, as in other places where they have formerly used to exercise." In the second year of his reign he declared himself their Captain-General, substituting the Duke of Norfolk to supply his place in his absence from the country. This was addressed from Kensington on the 3rd of June, 1690, the day before the King set out for the army in Ireland.

On the accession of Queen Anne, the Company presented an address, to which her Majesty replied, and appointed Prince George of Denmark, her Consort, Captain-General (26th June, 1702), and adding at the same time—"We likewise recommend unto your care, that all the commission officers of our Trained-bands of the City may list themselves members of the said society; that so by frequent practice of arms, according to their rules, they may be the better qualified to perform their trust in their respective commands: and for so doing this shall be your warrant."

The Company, in order to evince their zeal for the succession of the House of Hanover, raised a body of Grenadiers, with the motto of "*The Queen and House of Hanover*" on their caps.

On the occasion of the public entry of George I. in the City on the 20th of September, 1714, a detachment of the Company "in buff" had the honour of forming part of the cavalcade. The following answer was returned on the Company's presenting an address: "I thank you for this dutiful and loyal address; and as a mark of my particular regard for you, I will appoint the Prince of Wales your Captain-

General." The King also sent a letter, dated 5th of May, 1715, confirming their right to use all their ancient exercising grounds, and recommending that officers of trained bands should be members of the Company.

The following notice appeared in the newspapers of July of that year: "The Honourable Artillery Company intend to let out by lease, for building, the front of the Artillery Ground, towards Chiswell Street, containing about 500 feet in front, and — feet in depth," &c. "In the year 1719," says Blackwell, "the Company completed the letting the front of their ground for building, by which they have upwards of seventy pounds per annum ground rents coming in." (p. xi.) In the same year the Commissioners of the Lieutenancy of the City of London issued the following order:—"That all the Commission and Staff Officers in the Militia of the City, who are not already members of the Artillery Company, do forthwith enter themselves members, and exercise in the Artillery Ground, or elsewhere, with the said Company, at all convenient times, in order to qualify themselves the better to perform duties in their respective stations."

On the 1st of June, 1722, the Company had the honour of being reviewed by the King in person in St. James's Park, when he expressed great satisfaction at their appearance, and was pleased to make them a present of £500. They also presented a loyal address at the hands of Sir Gilbert Heathcote their president, and Sir Gerrard Conyers their treasurer,

to which a gracious reply was given. The Court of Assistants ordered the money to be invested in South Sea Annuity Stock. In 1730 they resolved to raise £3,000 by subscriptions for erecting a new armoury on their ground, by which they proposed to honour the memory of George I. as its original founder. The terms of the subscription were: "That such gentlemen as shall subscribe to pay the sum of £5 or upwards, shall have their names set in letters of gold on the panels in the great room of the armoury," &c. The building was completed in July, 1735.

In 1766, George III. expressed himself by letter in flattering terms of the Company, and appointed the Prince of Wales its Captain-General. In 1772, the Company consisted of about 300 men. It was governed by a president, vice-president, treasurer, and court of assistants; the Lord Mayor, aldermen, and sheriffs for the time being, with the field officers of the different regiments of trained bands (viz., the blue, green, yellow, orange, and red, so designated from their facings), were members of the honorary court, who, with twenty-four gentlemen annually elected, composed the Court of Assistants. [1] George IV. appointed himself Captain-General in 1821. William IV., on the anniversary of his birthday, 21st of August, 1830, signed a warrant confirming the Company in all its ancient rights and privileges, declaring himself Captain-General, and appointing the Duke of Sussex their colonel. The warrant was presented to the Company under arms

(1) Noorthouck, *Hist. of London*, p. 543.

by the Duke of Sussex, on the 6th of September, 1830. The warrants received since the accession of Her Majesty are as follows:—July 5, 1837, appointing the Duke of Sussex Captain-general; April 9, 1842, reserving to the Crown the right of appointing field-officers in the Company; September 14, 1843, appointing Prince Albert as Captain-general and Colonel; October 10, 1849, reserving to the Crown the right of appointing all officers of the Company; this privilege having hitherto been vested in the hands of the Court of Assistants.

The Company has always exercised the right of expulsion of refractory and unworthy members. The first entry in the Court Book of a case of this description was one of a domestic character:—"The name of John Currey, for his unmanly action in biting off his wife's nose, was ordered to be razed out of the Company's great booke." (Court Book, December 20, 1670.)

It does not appear when the Company first acquired the title of "*Honourable.*" It seems to have been assumed as early as 1769 (see a document printed in Highmore, p. 280), but it is now confirmed by special command of Her present Majesty in 1860. (1)

(1) "At a General Court of the Company, holden at the Armoury House, on Monday, the 23rd day of April, 1860,

Lieutenant-Colonel the Right Honourable the Lord COLVILLE in the Chair;

The Secretary read the summons convening the Court:—

"Before proceeding to the special business for which the Court was convened, Lieutenant-Colonel Lord Colville informed the Court

The arms of the Company, confirmed by George IV. in 1821, are as follow:—"Argent, a cross of St. George gules, charged with a lion passant guardant or, on a chief azure a portcullis of the third, between ostrich feathers erect of the field; and the crest on a wreath of the colours. A dexter arm embowed in armour, the gauntlet grasping a pike, in bend sinister or, between two dragons' wings argent, each charged with a cross gules. Supporters on the dexter side, a pikeman armed and accoutred, supporting with the exterior hand a pike erect proper, and on the sinister side a musketeer with matchlock, bandolier, and rest, all proper, together with the motto, '*Arma pacis fulcra.*'" The arms are given in Barriffe's *Military Discipline, or the Young Artillery-man*, (Lond., 1643), and are also described in *Proceedings* of London and Middlesex Archæological Soc., November 20, 1860.

The "Orders" for the uniform and equipment of

that the Company had been lately transferred from the jurisdiction of the Secretary of State for the Home Department to that of the Secretary for War; and that the latter department noticing that, in the Royal Warrant held by the Company, they were designated simply as 'The Artillery Company of London,' had deemed it necessary to omit in the Army List the ancient prefix of 'Honorable' in the name of the Company; that Captain General and Colonel, his Royal Highness the Prince Consort had directed him to acquaint the Company that his Royal Highness was desirous of preserving to them their ancient title, and, believing it to be agreeable to the feelings and wishes of the Company that he should do so, his Royal Highness had submitted the subject to the consideration of Her Majesty, who, at his Royal Highness's instance, had been graciously pleased to command that, as the Artillery Company of London had always been known under the name of 'The Honorable Artillery Company,' that title should be officially borne by the regiment."—*Extract of Minute Book H. A. C.*

the Artillery Company in 1803 are already curious, showing the great alterations effected in this respect in little more than half a century.

The caps worn by the Company, *circa* 1745, are preserved at the Armoury House, and are identical with those worn by the Grenadiers of the army at that period, as may be seen in Hogarth's picture of the "March of the Guards." They are sketched on Plate XIII. The following are extracts from the Company's orders of the day:—

"At a Court of Assistants of the Honourable Artillery Company, held at the Armoury House, on Monday, the 20th of June, 1803,

Colonel Paul le Mesurier in the Chair;

the following Orders for the uniform dress, arms, and accoutrements of the battalion, were unanimously agreed to, viz.:—

"UNIFORM JACKET.

"*Jacket* of superfine scarlet, with lapels six inches broad at top, and five at bottom, to button over all the way down; blue round cuffs, two and a-half inches deep, and stand-up collar, edged with white kerseymere, and laced with broad vellum-lace; slash-flap, with three buttons, laced round the skirt eight inches deep; blue wings on the shoulders, laced round and edged with white, with a silver plume in the centre, and bullion (to pattern) an inch and a quarter deep; the back skirt to be edged with white. The buttons to be at equal distances, not less than ten in number, and to be increased in proportion to the length of the lapels, which must not be less than fifteen inches long from the collar, and to be increased in proportion to the height of the wearer.

"BREECHES.

"White kerseymere, made sufficiently high to meet the jacket.

"STOCK, GAITERS, &c.

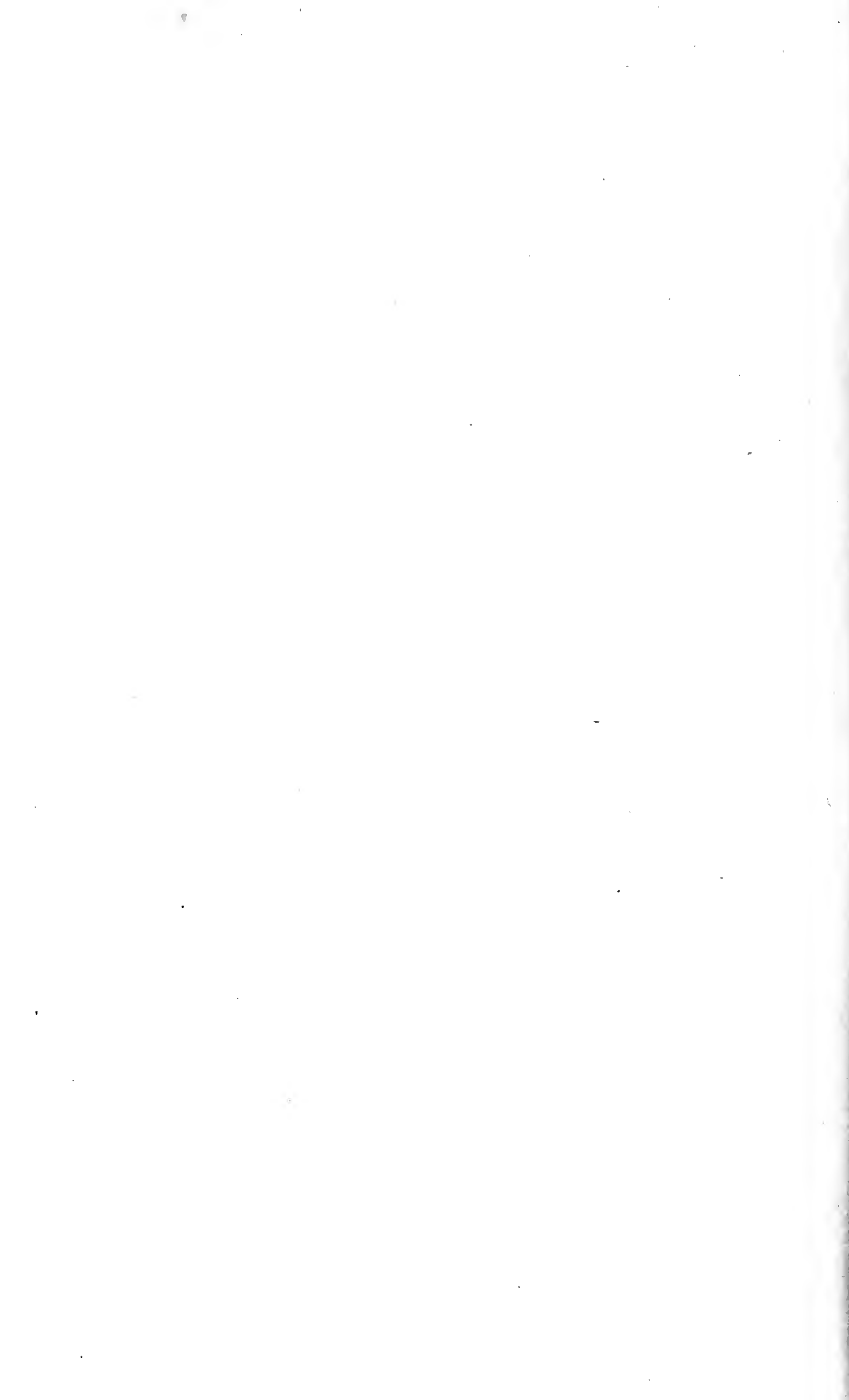
"*Stock*, to be black-ribbed leather, edged with black velvet; the shirt not to appear above the stock.

"*Gaiters* of black cloth, up to the knee, with flat, black leather buttons; shoe-buckles not to appear.

"*Hair* to be dressed close at the sides, with a queue of about six inches.

No. 13.

Caps worn by the Honourable Artillery Company.
Circa 1745.



"HELMET.

"*Helmet* of strong leather, to be made to come down low behind. Chain across the crown; black bear-skin. On the left side, a regulation-feather fourteen inches long, six inches red at the bottom, and eight inches white at the top; plated Prince's plume on the right side; a strip of leopard-skin round the bottom of the helmet, which is to be edged with plated metal; and the motto of the Company, *Arma Pacis Fulcra*, in the front.

"MATROSS DIVISION.

"*Jacket* of dark-blue cloth, white lining, scarlet cuffs, collar, and wings, to be made exactly to correspond with the scarlet jacket before described; button, a shield, with ordnance, surmounted with the Prince's plume. *Helmet*, same as the battalion, except a yellow edging and white feather.

"ARMS AND ACCOUTREMENTS.

"*Musket* for the battalion to be three feet six inches long in the barrel; for the Light Infantry and Matross divisions three feet three inches. The bore to be of the eleventh gauge, and the *Bayonet* eighteen inches long in the blade.

"*Pouch* to contain eighteen rounds, with a tin at the bottom of each; the flap plain.

"*Belts*. A shoulder-belt for the pouch, and a waist-belt for the bayonet, to fasten with a clasp in front, representing a lion's head.

"By order of the Court,

"WILLIAM WHITE, Secretary."

The following extracts of the public press of the day are not without their interest:—

"The exercise of arms performed by the Artillery Company in the fields leading to Baums, on Tuesday last, under the command of Sir R. Jefferies, General; Sir Jeffrey Jefferies, Lieut.-General; Captain James Ball, Major; Captain Daniel Newcomb, 1st Captain; H. Longley, 2nd do.; W. Jewell, 3rd do.; Major Thomas Lesley, Captain of Grenadiers; W. J. Kelson, Captain of the Pioneers, were as follows:

"The General having made a review in the Artillery Ground, orders a march to Baums (after-

wards Sir George Whitmore's), to preserve the ancient privilege; which orders are accordingly pursued, and the whole body marches in one battalion through the east gate into an open field about half-way thither, where it is drawn up; and the Lieut.-General sent with half the army to the eastward, at which he is disgusted, and resolves to revolt; therefore possesses several passes through which the General must march to the southward, and accordingly attacks his van by a detachment of grenadiers and musquetteers, forcing them to give way; but they making an orderly retreat, in which the Lieut.-General also draws up in battalia, which brings them to a general battle, in which the Lieut.-General, having the disadvantage, retreats to a strong pass, defending it for some time, but being overpowered, maintains a running fight to an eminence strongly situated, and with great celerity fortifies it, which the General attacks, and, after springing several mines and carrying the outworks, prepares for a general assault, which obliges the besieged to beat a parley, and surrender upon articles."—*Protestant Mercury*, September 20, 1700.

The sketch of the day's sham fight is certainly described somewhat pompously, and reminds one of the bombastic description of Major Sturgeon:—

"Oh! such marchings and counter-marchings! From Brentford to Ealing, from Ealing to Acton, from Acton to Uxbridge; the dust flying, sun scorching, even sweating. Why, there was our last expedition to Hounslow; that day's work carried off

Major Molasses. Bunhill Fields never saw braver commander." (1)

The manner in which the Company was in the habit of issuing orders was noticed by Steele, in the *Tatler*, No. 41, July 14, 1709:—"There was a battle fought in our very streets of London, and nobody at this end of the town has heard of it:—

"An exercise of arms of the Artillery Company, to be performed June 29, 1709, under the command of Sir Joseph Wolfe, Knight and Alderman, General; Charles Hopson, Esq., present Sheriff, Lieut.-General; Captains Richard Synge (Major), Storey (Major), grenadiers, and others.

"The Company marched from the Artillery Ground through Moorgate Street, Coleman Street, Lotbury, Broad Street, Finch Lane, Cornhill, Cheapside, St. Martin's, St. Ann's Lane; halt the pikes under the wall in North Street, drew up the firelocks facing the Goldsmiths' Hall, make ready and face to the left, and fire; and so ditto three times. Beat to arms and march round the hall, as up Lad Lane, Gutter Lane, Honey Lane, and so wheel to the right, and make your salute to my lord. The Lieutenant-General sends a division up King's Head Court, and takes post in it, marches two divisions round Red Lion Market, to defend that pass. Then the General marches up Beech Lane, is attacked, but forces the division in the court into the market. Three divisions force those of the revolters out of the market, so the Lieutenant-General's body retreats into Chiswell

(1) *Mayor of Garratt,* act i., s. 1.

Street, both armies engage in form in the Artillery Ground, and fire by platoons."

The last extract is from the *Postman*, June, 1703:—"On Friday, the 16th instant, at two in the afternoon, will be a plate shot for, of 25 guineas value, in the Artillery Ground, near Moor Fields. No gun to exceed 4½ feet in the barrel, the distance to be 200 yards, and but one shot a-piece, the nearest to the centre to win. No person that shoots to be less than one guinea, but as many more as he pleases, to complete the sum. The money to be put into the hands of Mr. J. Jones, at the Lion and Horse-shoe Tavern, or Mr. Tarey, gunsmith, in the Minories. Note, that if any gentleman has a mind to shoot for the whole, there is a person who will shoot with him for it, being left out by mistake in our last."

Royal Scottish Archers.

The Royal Company of Archers of Scotland was instituted in 1677, under the express authority of the Privy Council of that country. Tradition refers its origin to the ancient military muster called "weapon-shawing," which in Scotland was held once or twice a-year, but there is no documentary evidence of this. It is probable that the Acts of the Scottish Parliament, which required that each parish should provide butts and other appliances for the practice of archery, have led to the establishment of archery meetings and the institution of prizes in the form of silver arrows, which, either preserved or revived, still exist in some of the towns of Scotland, such as Musselburgh, Peebles, and Selkirk. That some such body

existed in the Northern metropolis at the very beginning of the seventeenth century is certain; and that it was in some sense the progenitor of the existing Royal Company appears from the fact that this corps is in possession of the old Musselburgh arrow, having medals attached to it bearing date from A.D. 1603 upwards. The political necessity, however, for training Scotchmen to the use of the bow as a weapon of war against the English having ceased to exist, the practice of archery naturally declined. The existing Royal Company was formed for the special purpose of reviving the exercise as a recreation; and if it cannot boast of high antiquity or ancient charters, at all events it has the merit of having perpetuated the object which called it into existence.

The following is an extract from the minutes:—"Att Edinburgh, One Thousand Six Hundred and Seventy-six years, The Persons undersubscryveing, Archers and Bowmen, residing within and about the City of Edinburgh, taking to their consideration the many laudable Lawes and Acts of Parliament . . . concerning Archerie, Shutting with Bows and Arrowes, and Wapen-shawings; and how much the said exercise of Archeing and Antient Armes of Bows and Arrowes is decay'd, and come in Desuetude, to the great Prejudice of this Kingdom . . . . HAVE THEREFORE Agreed and Resolved (the approbation of his Majestie's Secret Counsill being alwayes obtained thereto), To Enter and List themselves in a particular Society and Company for Archeing and Shutting with Bows and Arrowes, to be called His

Majesty's Company of Archers, which may not only be a nurserie for Archers in these parts, but may likewayes be a ready mean to raise ane emulation in others, and incourage them to use and practise Archerie in other places of this his Majestie's Antient Kingdom," &c.

The Company, in a petition to the Privy Council, signed by several noblemen and gentlemen, asked permission to choose their own council and officers, to have a seal bearing their badge and cognisance, and that the Company should be called "The King's Company;" and, for "greater solemnity," it should have drums and "collours." An allowance was likewise requested "to buy ane prize once in the year to be shott for, to be called The King's Prize."

"Edinburgh, 6th March, 1677.—The Lords of his Maj^ties. Privy Council having considered this Report, they approve the same, and recommends (*sic*) to the Commissioners of his Majestie's Treasury to allow Twenty pound ster^g. for the expense of a Prize to the effect within specified for this year, and declares that no further allowance shall be granted upon that account hereafter."

The Marquis of Atholl was their first Captain-general, and the Company was frequently assembled during the reigns of Charles II. and his royal brother. From the date of the Revolution, 1688, and for some years after, we hear nothing of the Company: proof presumptive that its sympathies lay with the fallen dynasty. But upon the accession of Queen Anne there was a revival, and in the minutes of the Com-

pany we read that "the Counsill of the Royall Society and Company of Archers, finding that the use and exercise of archerie is of late much decayed, considered themselves obliged, in prosecution of the designe of the said Royal Company, to revive the practice of archerie in this kingdom (of Scotland), in exerceing the powers and priviledges granted to them by her present Majesty's predicessors," &c.

We may presume that the encouragement of archery was not the sole object of this re-organisation, and that the promoters were actuated by ulterior political views; otherwise it is difficult to understand why certain noblemen and gentlemen should all at once be possessed with the necessity of reviving the practice of archery in the eighteenth century.

On the death of the Marquis of Atholl, in 1703, Sir George Mackenzie (then Lord Tarbat, and afterwards Earl of Cromarty and Secretary of State) was appointed Captain-general. Through his influence, no doubt, a charter was obtained from Queen Anne, under the Great Seal, bearing date at St. James's, 31st of December, 1703, reviving and ratifying, in their behalf, the old laws and Acts of Parliament in favour of archery, giving them power to appoint a president and council, to admit any members they might judge fit; as also of "convening" in military fashion, by way of weapon-shaw, under the guidance of their own officers, and of going forth as often as they should think proper, at least once in each year, about Midsummer, to shoot arrows with a bow at a butt or to a distance, according to the ancient laws and Acts

of Parliament, and prohibiting all magistrates and other civil officers from giving them any interruption. These rights and privileges to be possessed by the Royal Company, after the mode of feudal tenure, in fee blench-farm for ever, paying to her Majesty and her successors one pair of barbed arrows, at the term of Whit-Sunday, if asked only.(1)

The first time that, in consequence of this charter, they displayed any military parade was in 1714. The critical state of the country—the hopes and fears of opposite factions, aroused by the condition of the Queen, whose death was fast approaching—seem to have inspired unusual vigour into the Company of Royal Archers.(2) On the 14th of June, the Earl of Cromarty, although then upwards of eighty years of age, marched at the head of above fifty noblemen and gentlemen, in uniform and in military array, displaying their proper standards, from the Parliament Square to the Palace of Holyrood, thence to Leith, where they shot for the silver arrow given by the City of Edinburgh, and returned in like fashion, having received, from the different guards as they passed, the same honours which were paid to royal troops. Next year, the Earl of Cromarty being dead, the Earl of Wemyss headed the procession, the numbers of which were increased to above a hundred.

These were memorable occasions in the city of Edinburgh, and the writers of the Northern metropolis commemorated them by contributing many

(1) Charter in the possession of the Company.

(2) Arnot's *Hist. of Edinburgh*, p. 274.

laudatory poems, after the fashion of the time; most of these were afterwards collected and published in a volume.

Ad Cives Edinburgenses, de Pompa Regiorum Sagittariorum, habita Junii XIV. MDCCXIV.

"Annos hinc septem latuere insignia cives,
Scotorum, et mordax obruit ora dolor.
Fausta dies tristi diffudit gaudia menti:
O utinam vobis emina læta ferat!
Urbi Londinum vestræ se judice, cedat;
Anne viros tales, taliaque arma dabit."(1)

After the Rebellion of 1715, the Royal Company, for obvious reasons, made no public demonstration for some years; but the Duke of Hamilton being elected their Captain-general in 1724, they marched through Musselburgh in that year, and afterwards, occasionally, till 1743, when their public parades were again suspended, though they continued to shoot for the silver arrows.

That the Government, during the reigns of the first and second Georges, had reason to mistrust the loyalty of this Company, is evidenced in the fact that, during that period, a large proportion of those admitted into it were known to bear an attachment to the House of Stuart. These differences of opinion having happily subsided, the Royal Company came forth again in public, and have since deserved their appellation. George III. revived the royal prize, which was shot for, for the first time, on the 28th of July, 1788.

(1) *Poems in English and Latin on Archers, and Royal Company of Archers.* Edinb., MDCCXXVI.

The *Morning Post* of the 1st of August, 1801, announced that "the Duke of Hamilton is promoted to the rank of Lieutenant-general of the Royal Company of Archers, in which his Grace's ancestors have held, for nearly two centuries, the highest situations;" but notwithstanding the aristocratic element which has always accompanied this Company, the numbers dwindled very much. It had, however, a partial revival, and in 1816 its strength consisted of 300 members.

A grand opportunity for the Company arrived, when George IV. visited his Scottish dominions in 1822. The rank of being the King's body-guard for Scotland was understood from tradition to be vested in the Royal Company, and accordingly it claimed the honour of acting in this capacity. The claim was admitted, and the Company attended his Majesty at Court, and on all state occasions, during his stay at Edinburgh, and accompanied him on his visit to Hopetoun House, from whence he embarked for London. The Captain-general has since been appointed Gold-stick for Scotland, and the Royal Company now forms part of the household.

In 1832 King William IV. presented the body-guard with a pair of handsome colours, through the Captain-general, the Duke of Buccleuch. They possess also two old standards: the first having, on one side, figures of Mars and Cupid encircled in thistles, and the motto, *In Peace or War;* on the other, a yew-tree, and two archers also in a thistle wreath, and the words, *Dat Gloria Vires.* The second

standard displays on one side a lion rampant gules, on a field encircled with a wreath, and surmounted by a thistle and arrow; motto, *Nemo me impune Lacessit.* The other side has St. Andrew's cross on a field argent, a crown, and the legend, *Dulce pro Patria Periculum.*

The shooting ground of the Company is in the eastern division of the Hope Park. The want of a house of their own in the neighbourhood of the field being found inconvenient, the Company *feued* from the town of Edinburgh about an acre of ground at the east end of the meadows, and upon this the present Archers' Hall was commenced in 1776.(1) The members of the Royal Company meet for practice throughout the whole year, generally three days a week, exclusive of prize meetings. In winter, the shooting is for the Butt Prizes, which are shot for under cover, at the distance of 100 feet, the mark being a paper disc, three inches in diameter, placed upon a surface of compressed hay. In spring and autumn there are prizes at the ordinary English distance of 100 yards; but the majority of the prizes are at the old Scottish distance of 180 yards, and one prize—the St. Andrew's Cross—is shot for at 200 yards. There is generally a keen competition for all the prizes, but especially for the Royal Prize

(1) The foundation-stone was laid by William St. Clair, of Roslin; beneath it was deposited a medal, with this inscription: "Has ædes, cohorti regiæ sagittariorum proprias, condidit G. S. R. concilii pharetrati præses, 17 Kal. Sept., A.P.C.N. 1776.

"Nulla Caledoniam gens unquam impune, lacesset,
Usque sagittiferis robur et ardor inest."

of £20, which is voted annually in Parliament, and which the winner is bound to invest in silver plate, as well as for the Edinburgh, Musselburgh, and Peebles arrows; the silver bowl, instituted by the Council of the Company in 1720, and a handsome silver vase presented by their former Captain-general, the Earl of Hopetoun, in commemoration of the visit of George IV. to Scotland in 1822. The winners of the arrows and the bowl receive from the Company medals, silver in the cases of Peebles and Musselburgh, gold in the cases of the Edinburgh arrow and bowl, which they wear when in uniform till the prize is next shot for, after which the medals are hung upon the prizes. The Hopetoun vase is covered over with shield-shaped spaces, in which the names of the successful winners are engraved. These cherished memorials of the skill of the members are kept in a fire-proof safe at Archers' Hall, and are displayed at the mess dinners of the Company. The number of medals thus accumulated is very great: the Musselburgh arrow having been shot for, with not many exceptions, annually, since 1603; the Peebles arrow since 1768; the bowl since 1720; and the Edinburgh arrow, since 1709. The aggregate value of the prizes amount to several thousand pounds.

The Queen's Body-Guard at present consists of upwards of 500 members, among whom are to be found most of the principal nobility, gentry, and professional men of Scotland. The Court dress of the Royal Company is a handsome modern uniform of

green, with gold embroidery, and a cocked-hat with a plume of dark cock's feathers, and sword. The shooting dress, without which no one can compete for the prizes, is a green tunic with crimson facings, and green trousers, a Highland cap with a single eagle's feather, and a *couteau de chasse.* The shooting dress of the officers has gold embroidery, and their cap bears two feathers; that of the captain-general three. The field uniform, which has been re-modelled during the last few years, is an improvement on the former costume, which was a modification of the "garb of old Gaël," and consisted of tartan, lined with white, trimmed with green and white fringes; a white sash, with green tassels; and a blue bonnet, with St. Andrew's cross.

Amongst many interesting relics preserved at the Archers' Hall, is a tough old English yew-bow, believed, on good grounds, to have been at Flodden; and a Royal Archer's uniform coat, presented to the Company by Lawrence Oliphant, laird of Gask. In a letter addressed by that gentleman to Martin Lindsay (late of Dowhall, writer, Edinburgh), dated Gask, 6th November, 1777, he writes:—

"It is pretty odd if my coat be the only one left, especially as it was taken in the '46 by the Duke of Cumberland's plunderers; and Miss Annie Græme, Inchbrakie, thinking it would be regretted by me, went boldly out among the soldiers and recovered it from one of them, insisting with him that it was a lady's riding-habit; but, putting her hand to the briches (*sic*), to take them too, he, with a thundering

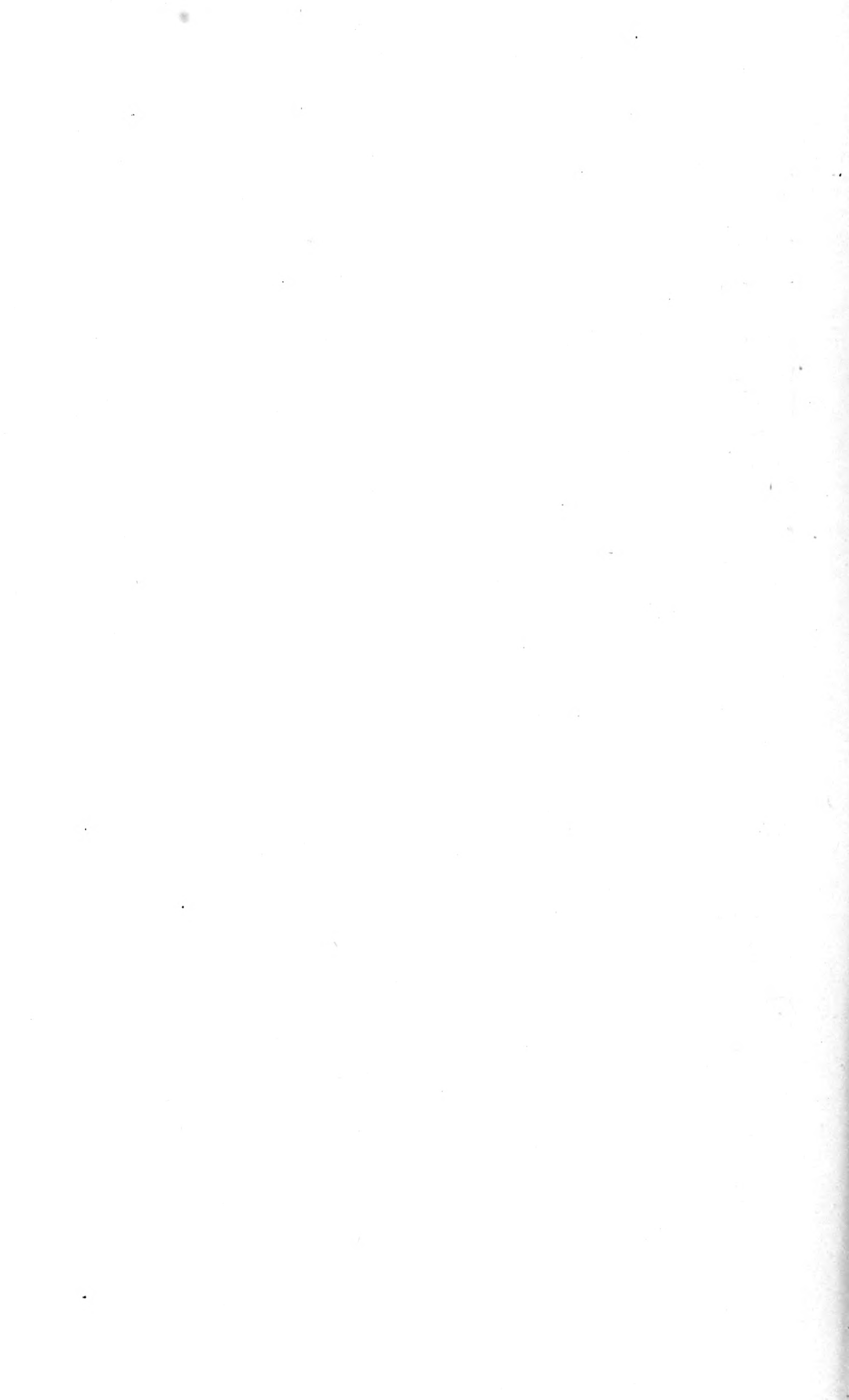
oath, asked if the lady wore briches. They had no fringe, only green lace, as the coat; the knee buttons were worn open, to show the white silk puffed out as the coat sleeves; the garters green. The officers' coats had silver lace in place of the green silk, with the silver fringe considerably deeper; white thread stockings, as fine as could be got. All wore blue bonnets (the officers velvet), tucked up before, on which was placed a cockade of, I think, a green and white ribbon by turns, the bughts kept out with wire, and in the middle a white iron plate with the St. Andrew's cross painted on it."

The Royal Archer represented on Plate XIV. is copied from a portrait of Lord Elcho, in the possession of Mr. Henry George Watson (brother of Sir John Watson Gordon, A.R.A. Edinburgh). The picture has "Elcho" written on the back, but no date. It appears, however, that the uniform was adopted for the first time by the Royal Company in 1713, and that the Earl of Wemyss of that day turned out in a march which the Company made to Leith and back again in 1714, so that it is not improbable that the picture in question is his portrait. The uniform exactly corresponds with that described in the letter above.

The present Earl of Wemyss is the Lieut.-General of the Royal Archers.

No. 14.

Portrait in the uniform of the Royal Archer Guard of Scotland, said to be a Lord Elcho. *Circa* A.D. 1713. Original in possession of William Gordon Watson, Esq., Edinburgh.



CHAPTER IV.

ARTILLERY, ITS DERIVATION—MILITARY ENGINES—ATTACK AND DEFENCE OF FORTIFIED PLACES—MOVABLE TOWERS—HOW THE EARL OF DERBY TOOK ROCHE-MILLON—MINES—LINES—INVENTION OF GUNPOWDER—RECIPES FOR EXPLOSIVE POWDERS—DERIVED FROM THE EAST—GREEK FIRE—MANUFACTURE OF GUNPOWDER—DISTINGUISHED SMUGGLERS—SALTPETRE-MEN—GUN, ITS ETYMOLOGY—CRAKES OF WAR—FRENCH AND ENGLISH GUNS—USED AT CRECY—RIBAUDEQUINS—BOMBARDS—PROGRESS OF ARTILLERY—GREAT CANNON OF GHENT—ENGLISH GUNS AT MONT ST. MICHEL—MONS MEG—MORTARS—FIRST IRON CANNON—"MARY ROSE" GUNS—"QUEEN ELIZABETH'S POCKET-PISTOL"—HISTORICAL SUCCESSION OF ORDNANCE—ARTILLERYMEN CALLED CANNONIERS—PRACTICE IN IRELAND IN CIVIL WAR—PETARDS—SHELLS—RICOCHET—CHAIN-SHOT—GUNS IN ST. JAMES'S PARK.

Derivation of Term.

ARTILLERY, a word derived from the old French *artiller*, (1) in its general signification denotes all kinds of missile weapons, with the engines used in propelling them. In the modern acceptation of the term, it is appropriated to the larger sorts of fire-arms; in mediæval times, it naturally referred more generally to bows and arrows and their appurtenances. Stowe defines it as the "*ars telorum mittendorum*, the art of shooting in long-bows, cross-bows, stone-bows, scorpions, rams, catapults, as also (and

(1) *i.e.*, to fortify; from *ars*.—See Menage, *Dict.*

especially in this age) in canons, baselisks, culverings, sakers, faulcons, minnions, fowlers, chambers, muskets, harquebusses, calivers, petronils, dags, &c., for this the artillery which is now in most use and estimation."(1) Joinville writes, "Nul ne tiroit d'arc, d'arbaleste, ou d'autre artillerie." (2) Froissart uses the word to denote the *ammunition* of archers: "Ces archers eurent employé toute leur artillerie." (3) In the authorised version of the Bible of 1611, in 1 Samuel xx. 40, it would seem to denote the bow: "And Jonathan gave his *artillery* unto the lad," who had already picked up the arrows. Shakespeare uses it in the sense of great ordnance: "Heaven's artillery, thunder in the skies," and "to view the artillery and munition." In 33 Henry III. (1248-9), the Liberate Rolls furnish a writ to the sheriff of Northumberland, "quod balistas et quarrelas nostras in castris nostris de Bamburgh et de Novo Castro qui indigent reparacionem reparari et *atiliari* facias," *i.e.*, strengthened or re-inforced. This is perhaps the earliest mention on the rolls of the word from which the English term "artillery" has been derived. (*Archæol. Ælian.*, N. S. iv. 101.) The artificer who performed this work was naturally called *artillator*. A statute of Edward II. (on the office of Seneschal of Aquitaine and Constable of Bordeaux) defines what his duties were:—"Item, ordinatus est quod sit unus *artillator*, qui faciat balistas, carellos, arcus, sagittas, lanceas, spiculas, et alia arma neces-

(1) *Annals*, App., p. 1,084. (2) *Hist. de St. Louis.*
(3) See before p. 117.

saria pro garnisionibus castrorum" [1]—in fact, an armourer.

Early use of War-engines.

The earliest engines, such as are comprised in the term "artillery," were, in all probability, those for casting stones of great weight. The invention is a very early one in the world's history. Of Uzziah (B.C. 1000) it is said that "he made in Jerusalem engines, invented by cunning men, to be on the towers and upon the bulwarks, to shoot arrows and great stones." (2 Chron. xxvi. 15.)

The names balista, or ballista, and catapulta imply a Greek origin. The former denoted an engine for hurling stones, the latter for propelling darts and arrows; but by degrees they were confounded, and indifferently appropriated to either. Names of animals were subsequently bestowed upon their varieties, supposed to be descriptive of their qualities. The onager, for instance, a machine for throwing stones, from the wild ass, which on being hunted was said to fling up stones with its heels at its pursuers; [2] and the scorpion, from its discharging small envenomed darts. [3]

The early chroniclers, writing in Latin, were constrained to use the ancient classic terms. Hence a confusion has arisen, for in describing the engines of the middle days, they applied Roman terms to machines which probably bore very little resemblance to their prototypes. These latter were dependent

(1) *Regest. Aquit.*, fol. 80, quoted in *Anc. Arm.*, ii. 285.
(2) Ammianus Marcellinus, lib. xxiii.
(3) Vegetius, lib. iv., § 22.

on the same principle, viz., the elasticity of twisted cords, whereas the former were constructed on the principle of counterpoise, or were wound up by a windlass. This subject is fully and ably treated of in the Emperor Napoleon's *Études sur le Passé et l'Avenir de l'Artillerie* (tom. ii. 26), and also in Grose (i. 350).

Cæsar discharged projectiles on the Britons, at his landing, from the decks of his men-of-war. With this exception, there is no evidence of military machines having been used in England before the arrival of the Normans; but among the tenants *in capite* in the Domesday survey, *balistarii* occur as well as arcu-*balistarii*. Artillery, however, in the twelfth and subsequent century, was most frequently used in sea-fights, when not only stones and darts were discharged from engines, but pots of Greek fire, quick lime, and other combustible materials. An ancient chronicler relates that Richard I. set up in his vessels mills which were turned by the wind, and by force of the sails threw not only fire but stones brought from the Rhine against the enemies of the Cross.

> "In bargeis and gaeleis he set mylnes to go,
> The sailes, as men sais, som were black and blo,
> A selly sight to sene, fire the sailes threwe.
> The stones were of Rynes, the noyse dreadfulle and grete,
> It affraied the Sarazins, as leuen the fire out schete" (shot).
>
> *Peter Langtoft's Chron.* (edit. Hearne), p. 154.

About the beginning of the thirteenth century, the means of attack and defence of walled places were

much improved. Siege operations were carried on systematically, and engineers were specially entrusted with the construction of engines of war.

The first attempt at taking a place was generally made by escalade. If the attempt failed, and the gates were too strong to be forced, it became necessary to undertake a formal siege. This was a work generally of protracted duration, and highly inconvenient in feudal times, where the tenants might withdraw after their forty days' service. In fact, the means of defence were, in those days, superior to the power of attack. Walls were strong and artillery was weak. In 1346 Edward III. failed in his attempt to take Cherbourg,(1) and Calais, cut off from all supplies by land and sea, held out for nearly a year against him. In 1360 he sat down before Rheims for seven weeks, and was obliged to abandon the hope of taking it.(2) In 1411 Charles VI. of France and the Duke of Burgundy assembled an army of 100,000 men to besiege Bourges, and were beaten off.(3) In speaking of Ghent, Froissart expresses his opinion that it was one of the strongest towns in the world, and would require more than 200,000 men to take it. (4)

Attack of Fortified Places.

The first care of the besiegers was to erect engines which should discharge missiles by day and night,

(1) Froissart subsequently says of this place, "Vous dis que Chierbourgh n'est point à conquérir si ce n'est par famine: car c'est un des plus forts châteaux du monde, et bien conforté de la mer de toutes parts." (ii. 31.)

(2) *Ibid.*, i. 426.

(3) Pierre de Fenin, p. 551.

(4) Froissart, ii. 136.

and on which the attackers might attain access to the walls. With this view, the moat was generally filled up, in order that the engines might be brought up close. The working party had to be protected by pavises, and by an outside cordon of archers, who plied their shafts whenever the besieged made an appearance, for of course attempts were made from the walls to prevent the work, by casting down large stones and burning pitch on the labourers. At the siege of the Castle of Breteuil in 1356, we are told that 1,500 men (out of an army of 60,000) were daily employed exclusively in filling up the fosse. At the end of seven days, the garrison capitulated. (1) Few sieges of importance occurred without the invention of some new engine. At the siege of Calais by Edward III., Froissart tells us how the King and his Council worked night and day to devise machines which might harass the besieged, while they on their side had to exert all their ingenuity to protect themselves from the attacks. (2)

It is not intended to give a description here of the construction of the machines or instruments designed for the destruction of human life, the subject having been so fully and ably illustrated by Grose in his *Military Antiquities* (vol. i.), and by the Emperor of the French in his *Études* (tom. ii.). The chroniclers relate surprising stories of the military machines of the Middle Ages, of the size of the projectiles, and of the distance to which they were carried. Hemingford states that the engines used by Edward I. at the

(1) *Chron.*, i., ch. cccix., p. 256. (2) *Ibid.*, p. 332.

siege of Stirling Castle, in 1303, threw stones of 300 pounds weight. Matthew of Westminster, also speaking of the same siege, mentions "*lapides torrentes*" discharged from "*immensis tormentis*," and the darts of a most cruel engine, which is called, says he, in English, Springhold. This was an exaggerated cross-bow (espringal, springal, or espringold, as it was variously called) mounted on a carriage, and it ejected quarrels of immense size. It is mentioned at the siege of Carlaverock (p. 81), and by Chaucer.

> "And eke within the castle were
> Springholdis, gonnes, bowes, and archers."
>
> *Roman de la Rose*, v. 490.

There was a great variety of the genus Arbalest, designated "à tour," "à croc," "à tillol," according to the manner in which they were worked. A machine termed a *robinet* is mentioned as playing a part at the above-named siege; its peculiarity is unknown. According to the Wardrobe Accounts of Edward I., where its cost is given, the thongs or bands by which it was worked were made of horse-hide.

	£	s.	d.
"Domino Thome de Bikenore pro uno corio equino empto per ipsum ad lengas (*i.e.*, bands or straps) et alia necessaria inde facienda apud Carlaverock, pro ingenio Reg' quod dicitur Robinettus, per manus Ade Sellar' recipient' denariis apud Kirkudbright 22 die Julii." (*Lib. Quot.*, p. 65.)	0	5	6

There is also an engine named *multo*, enumerated in the same account (p. 140). At the siege of Stirling Castle, or Strivelin, as it was then called, we hear of another engine called a war-wolf, apparently

a sort of battering-ram,(1) which seems to have effected considerable execution, "having pierced with one stone," to use the words of Camden,(2) "and cut as even as a thred, two vauntmures, as he did before at the siege of Brekin (Brechin), where Thomas Maile, the Scotsman, scoffed at the English artillerie, with wiping the walls with his handkercher, untill both hee and the wall were wiped away with a shot." The King himself had a narrow escape at the aforesaid siege, but in the words of the monkish historian, "ô Sathan sagittasti regem, non mactasti regem." (Matt. Westmon., p. 449.)

It would be difficult to collect even the names of all the various engines of war. "Concerning these *mangonells*," says Camden, "*petraries*, *trabucces*, *bricoles*, *espringolds*, and what our ancestors called the *war-wolf*, out of which, before the invention of bombs, they threw great stones, with so much force as to break open strong gates, I have several things to add."(3) It is not, however, to be supposed that the introduction of gunpowder immediately superseded all "nervo-ballistic"(4) engines: on the contrary, such was the slow progress of *bouches à feu*, that the ancient artillery continued to be constantly used for two centuries after.

These military engines were sometimes made use of as vehicles of other substances, besides stones and

(1) "Jussit rex Arietem fabricari, quem Græci Nicantam vocant, quasi vincentem omnia et Lupum belli." (M. Westmon., p. 499.)

(2) *Remaines: Artillerie*, p. 201.

(3) *Brit.: Bedfordshire*, p. 338.

(4) See *Études, ut supra.*

darts. When the Duke of Normandy besieged the Castle of Thun-l'Evêque in 1340, he caused engines to discharge the putrid carcases of horses and other animals over the walls, which in the hot weather greatly distressed the garrison.(1) An instance of a living freight similarly conveyed is given by the same chronicler. The town of Auberoche was hard pressed by the Count of Lille and the Barons of Gascony; the besieged let down "a varlet" from the walls at night, who volunteered to try and take a letter to the Earl of Derby, who was at Bordeaux, begging his assistance. The unfortunate messenger, however, was caught, and the letter found upon him, which, after having been read, was tied round his neck, and the poor varlet, being placed upon an engine, was shot back into the town.(2) The idea was not a new one; at the siege of Jerusalem (A.D. 70), the dead bodies of men and horses were thrown from the machines to inspire the besieged with greater terror.

Several attempts have been made in modern times to test the power of the ancient engines, by constructing models of them. Some instances are cited by Grose. An *onager* was constructed by a General Melville, and a catapult for the garrison of Gibraltar; this latter threw a ball of iron of six pounds.(3) In 1850, Colonel Dufour, of the Swiss army, constructed a huge cross-bow, which carried a 4-pound quarrel 800 yards; and a *trébuchet* was executed at full size by order of the Emperor Napoleon (then President of the French Republic), and tried at Vincennes.

(1) Froissart, i. 102. (2) *Ibid.*, i. 191. (3) *Mil. Ant.*, i. 364.

The beam was 33·79 feet long, the counterpoise being fixed at 9,900 lbs. A 24-pound shot was hurled to a distance of 191 yards, &c. The machine was ill constructed, but Captain Favé, who draws up the report, is of opinion that it is possible to realise the effects said to be produced by the ancient chroniclers. (*Études*, tom. ii., p. 40.)

Movable Towers.

Movable towers placed against the walls of a besieged city or castle, in order to bring the assailants on a level with the defenders, or even to overtop them, or to cover the approaches of miners or of other working parties, were constantly employed in the twelfth, thirteenth, and fourteenth centuries. They were made of wood, after the similitude of those of the Romans, and were called *beffroys*, *cats*, and *sows*, answering to the *tortoise*, *vinea*, and *pluteus* of the ancients.

The beffroy(1) consisted of a succession of stages or stories, connected by ladders, diminishing in width gradually from the base. The name was afterwards given to high towers erected in cities, for the purpose of giving an alarm by men or bells; hence the term "belfry" in its modern acceptation. The towers of the Middle Ages had seldom more than three or four stories, and were placed on four wheels. They were both defensive and offensive; sometimes the lower stage or ground-floor was occupied by a *mouton* or *bosson* (the battering-ram of the ancients), the upper stories by archers and cross-bowmen; at the top

(1) *Beuffroy, Bufrarium, Berfudus, Belfredus, Belfragium.* (See Du Cange and Adelung.)

there was a bridge to let down, when the works were to be stormed.(1) Froissart gives an account of a beffroy, when John II. of France besieged the town of Breteuil, which must have been on a very large scale; it had only three stories, but each one could contain 200 men. "Et fit le Roi de France faire par grand' foison de charpentiers un grand beffroy à trois étages que on menoit à roues quelle part que en vouloit. En chacun étage pouvoient bien entrer deux cents hommes et tous eux aider; et etoit breteskié(2) et cuiré pour le trait trop malement fort; et l'appeloient les plusieurs *un cas,* et les autres un atournement d'assaut." A month was consumed in the construction of this tower, and in filling up a portion of the fosse, where it was designed that it should be stationed. It was then drawn on four wheels close alongside the walls, and those knights and esquires who were most anxious to distinguish themselves entered it. The besieged, however, contrived to set it on fire with "feu grégeois," which drove out the inmates, or all would have been burnt. (i. 31.)

(1) See *Architecture Militaire,* by Viollet-Le-Duc.

(2) See Du Cange, *v. Bretachiæ.*—Breteches (in old English, *Brettis, Brettish*) were often understood as hourds or hoards, but specially denoted the wooden galleries erected on the top of fortified buildings, carried on a series of corbels called machicoulis, in which the archers were mostly placed, and from which stones were hurled on the assailants below, through the openings of the machicoulis. Scarcely any old fortification is without the marks where the breteches have been erected. (See many engravings of them in Viollet-Le-Duc.)—A breteche for Rochester Castle is mentioned in the Clause Rolls of 1227 and 1226. (See *Archæol. Jour.,* No. 79, p. 219.)—Projectiles were conveyed to the top of the walls or towers by means of the sort of wells often discovered in the thickness of the walls of old castles.

Examples of wooden towers occur in Roy. MS. 20, D. i., fol. 305, 306, and 317; also Roy. MS. 14 E. iv.

The Cat, or *cas*, as above, was an invention for protecting working parties in any operations against the walls, and those who were employed under its cover might well be likened to the stealthy movements of the animal of that name. It is variously called "Catus," "Cattus," and "Kas," and was sometimes a lofty erection, as high as the castle walls.(1) When the Castle of Bedford, which had fallen into rebel hands, was invested, in 1224, in Henry III.'s reign, mangonels and petraries were employed to batter the walls. (See Rymer, i. 175.) Besides these, there were two wooden machines raised above the height of the tower and castle for the cross-bowmen and scouts, also many others in which the cross-bowmen and slingers lay in ambush. There was also the machine called a *Cat*, under which the miners had a free passage to sap the walls.(2) The castle was taken by four assaults. In the first, the barbican was taken; in the second, the outer bailly; at the third, the wall by the old tower was thrown down by the miners, and the inner bailly was gained through a chink; at the fourth, the miners set fire to the tower, by which several breaches were made, whereupon the enemy surrendered. Froissart gives us the following relation at the assault of Aiguillon, in 1346: "Lendemain vinrent deux maîtres engigneurs au duc de Normandie et aux seigneurs de son conseil, et

(1) Du Cange, *v. Catus.*

(2) *Chron. de Dunstable*, vol. i., p. 143 (edit. Hearne); Camden, *Brit. Bedfordshire.*

dirent que, si on les vouloit croire et livrer bois et ouvriers à foison, ils feroient quatre grands kas forts et hauts sur quatre grands forts nefs et que on mèneroit jusques aux murs du châtel, et seroient si hauts qu'ils surmonteroient les murs du château." (i. 216.)

Sometimes the Cat and the Beffroy were combined, and termed Chat-chastel, so Joinville: "Et pour garder ceulx qui feroient ladite chaussee, il fit faire deux Beffroiz que on appelle chas-chastiaux." (*Hist. de St. Louis.*)

The Sow was also a covered machine for the same purpose, and of like construction. It derived its name from the men under it lying close together, like pigs under a sow.(1) William of Malmesbury gives an excellent description of one at the siege of Jerusalem, in 1099. "There was an engine we call the Sow (*Suem*), the ancients, *Vinea;* because the machine, which is constructed of slight timbers, the roof covered with boards and wicker-work, and the sides defended with undressed hides, protects those that are within; who, after the manner of a sow, proceed to undermine the foundations of the walls."(2) We read of it in later times in Ireland, in 1560, at the attack of the Castle of Liscaghan, by the Queen's forces: "An engine (well knowen in this country) called a Sow, to supp [sapp?] the same; but the defendants did so well acquit them-

(1) The same appellation is bestowed on this engine by the French chroniclers: "Un grand engin que on appelle *truie*, lequel engin étoit de telle ordonnance, que il jetoit pierres de faix (*of size*); et se pouvoient bien cent hommes d'armes ordonner dedans." (Froissart, ii. 4.)

(2) Edit. English Hist. Soc., vol. ii., lib. iv., p. 566.

selves in a Sally, as they tare the Sow in pieces, made her cast her pigs, and slew twentie-seven of them dead in the place." (*Pacata Hibernia*, i. 124.)

The Countess of March, who gallantly defended the Castle of Dunbar for nineteen weeks against the English in 1337, threatened that unless the Englishmen kept their sow better, she would make her cast her pigs.(1) Camden, who also mentions the circumstance (*Remaines*, p. 201), says "the Sow is yet used in Ireland," and so it was some eighty years after these words of his were written: to wit, "An engine, called by the Irish a Sow, which was made hollow to contain men, and was composed of very strong whole timber, bound with iron hoops, and covered with two rows of hides, and as many of sheep-skins, which rendered her proof against musket-ball or steel arrows. The back part was left open for the men to go in and out at pleasure, and in the front were doors to be opened when the Sow was forced under the wall, which was done with little labour; the engine being fixed on an iron axle-tree. Captain St. Sauveur (a resolute French officer in Mellonière's regiment), by killing the engineer, and two or three men, obliged the rest to retreat, and he then fired the Sow."(2)

A movable tower constructed by the Royalists in King Charles's Civil War, is miscalled "a Sow"

(1) Buchanan, l. ix., c. 25.—Agnes, daughter of Sir Thomas Randal, of Stradown, Earl of Murray, and nephew of Robert Bruce. "She was called Black Annes," says Robert Lindsay, "because she was black-skinned."

(2) *Life of King William III.*, vol. iii., p. 20. Dublin, 1747.

by the Puritanical chronicler, and was evidently out of date in England. It appears that a body of Royalists, about 400 strong, marched out from Hereford with the design of surprising Canon-Frome. When they came in front of the house, they wheeled about towards Malvern Hills, to meet re-inforcements from Worcester. In the meantime, the Governor of Canon-Frome sent to Colonel Morgan, at Gloucester, to come to his assistance, who immediately marched out with 500 horse and 200 foot, and proceeded to Ridley, where he received an accession of 300 men. However, a quartermaster of Canon-Frome with a dozen horsemen, accidentally came upon the Royalists at Ledbury, whilst they were refreshing themselves, and being panic-stricken at the sudden apparition of the enemy, and in ignorance, doubtless, of their numbers, ran away, leaving an engine behind them which they had prepared for the attack of the castle. "The engine," says the writer, "was such a one as the like hath not been known since these wars; the Roysters call it a Sow: it was carried upon great wheeles, and to be drawn with oxen; it was made with rooms or lofts one over another, musquet proof, and very strong, out of which were holes to play and shoot out. It was so high, that it was above all the works of Canon-Frome, so that they could discharge over the works; besides which, a door opened to bring them into the works, out of which a bridge went for their entrance. The garrison was then in such a condition, that had they not been thus disappointed, in all probability

this engine had effected their intended design; but, God be praised, it was prevented. On the Lord's-day following, November 9th, Master Jackson, a minister of Gloucester, having information thereof in the morning (before sermon), gave public thanks in the pulpit for so great a deliverance, and unexpected and unlikely preservation." (A.D. 1645.—Vicars' Chronicle, entitled *The Burning Bush not Consumed*, p. 318.)

Froissart gives an account of the capture of the fortified town of Roche-Millon by the Earl of Derby in 1345, which is worth noting. When the Earl perceived that his men were working hard without success, and were falling around him, he ordered them to retire to their quarters; and on the following day, he made the country people bring in a great store of wood and fagots and straw, which he ordered should be thrown into the fosse, together with earth. When a portion of the fosse had been thus filled up, so that it was possible to stand close under the walls, he ordered out 300 archers, and in advance of them 200 brigans, well protected with pavises, who were to work at the walls with pick-axes and mattocks. While they were working, the archers behind them kept up incessant discharges at those of the enemy who showed themselves upon the walls. In the course of the day a breach was made sufficiently wide for the entrance of ten men abreast, and so the place was taken. (i. 195.) A little further on, we find the "Comte Henry Derby" besieging Reole, stopping up all approaches, so that no provisions could enter the town. (*Ibid.*, p. 197.)

Mines were also employed in sieges from an early period. Richard I. sapped the foundations of the walls of Acre in 1191, for the purpose of making a subterraneous passage into the town. Another plan of mining was with the purpose of bringing down the walls and towers. The roof of the mine was shored up with wooden props until the mine was completed. The props were then set on fire, and the result may be imagined.(1) The galleries of these mines must have been very large, for the miners and counterminers sometimes met and fought in them. At the siege of Melun by Henry V. of England and the Duke of Burgundy, which held out for four months, the King and the Duke fought in a mine with lances against two of the garrison, and several knights and esquires came and joined in the fray.(2) And it appears that when a knight was to be made at a siege, and no church was at hand, the candidate kept his vigil in the mine, if there were one—a good test of courage and constancy.(3)

In sieges of large towns, lines of circumvallation were traced. In the instance of the siege of Calais by Edward III. a complete town was built around the walls; and the castle of La Roche-sur-Yon, in Poitiers, captured by the English in 1369, had been surrounded by the besiegers.(4)

(1) Grose, ii. 5.

(2) Monstrelet.

(3) Upton.

(4) "Si ordonnèrent les dessus nommés seigneurs et barons qui là étoient leur siége par bonne manière et grand' ordonnance; et *l'environnérent tout autour,* car bien étoient gens à ce faire." (Froissart, i. 585.)

Introduction of Cannon.

Towards the middle of the fourteenth century, cannon had been used both in the field and at sieges. This new means of destruction was destined to change before long the whole conditions of the attack and defence of strong places. At the commencement of the fifteenth century, artillery was still of little importance, but it obtained a great development towards the middle of the century. The use of great guns in sieges would produce—as the first result—the abandonment of hoards and brettishes of wood, and the substitution of machicolation and pierced parapets of stone, and the ultimate disuse of wooden engines, when the attack could be executed by batteries at a distance.

Invention of Gunpowder.

The date of the invention of that marvellous powder, the subverter of established principles, and the stern regenerator of the human race—a discovery, perhaps, accidentally made—is veiled in hopeless obscurity.

It seems strange that some of the most remarkable discoveries, which have had the greatest influence upon the progress and destinies of mankind, are amongst those of which the least is known concerning their authors. We shall, in all probability, never know who first discovered the effects of this chemical combination; but by negative conversion we are able to point out those who did *not*.

The invention has been popularly ascribed to Berthold Schwartz, a German monk and alchemist, and the year assigned to it—1320. The Emperor Napoleon, in his *Études sur le Passé et l'Avenir de*

l'Artillerie (iii. 87), gives an extract from a MS. in the Bibliothèque Impériale of Paris, entitled, "*Règlement des monnoies tant de France qu'Étrangères.*" The passage in question has reference to the year 1354, and is not devoid of interest, although the MS. bears date of the seventeenth century. "Le xviie may mil trois cent cinquante-quatre, ledit seigneur roy estant acertené de l'invention de faire artillerie trouvée en Allemagne par un moine, nommé Berthold Schwartz, ordonna aux généraux des Monnoies faire diligence d'entendre quelles quantités de cuivre estoient audit royaume de France, tant pour adviser des moyens d'iceux faire artillerie que semblablement pour empescher la vente d'iceux à estrangers et transport hors le royaume."

His Majesty remarks that there is no reason for suspecting the authenticity of the MS., and that the extract is given not for the purpose of founding any belief that Berthold Schwartz was the inventor of the then modern artillery (admitting the fact that military pyrotechny had been long known and practised in the world), nor even that he was the author of any improvement in it, but to show how the tradition survived that the German monk was the inventor, and that King John of France deemed the subject of gunnery of sufficient importance to prohibit the exportation of copper, as necessary for the fabrication of cannon.[1]

[1] Berthold's imputed discovery has been further handed down to posterity by a picture in the Museo degl' Uffizi at Florence, painted by Giacomo Crespi, at the end of the fifteenth century, which

Roger Bacon.

The prior claims of our countryman, Roger Bacon—whatever they be—are, however, unquestionable, as the compound is described in his writings about the year 1270—fifty years before the supposed discovery of Berthold. But Bacon has as little title to the invention as the other, nor does he make any claim to it. On the contrary, he mentions it as a compound used in many parts of the world for making squibs to amuse children.(1)

In one of his treatises, *De Secretibus Operibus Artis et Naturæ*, he seems to have mentioned the three ingredients of which gunpowder is composed —saltpetre, charcoal, and sulphur—but, after the manner of alchemists, he avoids making his meaning plain, or possibly he had the humanity not to record the discovery in intelligible language, and so hides one of them, charcoal, under an anagram.(2)

represents the German chemist in his laboratory, surrounded by several assistants, working at the manufacture of gunpowder in a mortar, upon which is inscribed "*Pulvis excogitatus*, 1334 (the same year as above), *Dania Berthold Schwartz*."

(1) "Ex hoc *ludicro puerili* quod fit *in multis mundi partibus*, scilicet, ut instrumento facto ad quantitatem pollicis humani, ex violentia illius salis qui salpetræ vocatur, tam horribilis sonus nascitur in ruptura tam modicæ rei, scilicet *modici pergameni*, quod fortis tenitrui sentiatur excedere vagitum et corruscationem maximam sui luminis jubar excedit." (Fratris Rogerii, *Opus Majus*, p. 474. Lond., 1732.)

(2) "Sed tamen salis petræ *luru Vopo Vir Can Utriet* sulphuris; et sic facies tonitrum et corruscationem, si scias artificium. Videas tamen utrum loquar in ænigmate vel secundum veritatem." (*De Secretis Operibus Artis et Naturæ et de Nullitate Magiæ*, cap. xi., p. 69.)—On this passage the Emperor Napoleon remarks, "En faisant l'anagramme, on trouve *carvonu pulveri trito*, qui se rapproche de *carbonis pulvere trito*." (*Études*, iii. 62.)—In testing this solution, one letter, V, will be found unemployed.

Thus the claim of the discovery is shifted without difficulty from Friar Bacon, who does not pretend to be the inventor, but only the compiler of a *liber ignium*, or treatise on pyrotechny. It is, however, clear, from the manner of his writing, that he was describing something new in science, and which was known but to a few. It has been said that he may have acquired his knowledge from Arabic writers, or from a MS. written by Marcus Græcus (*Liber ignium ad comburendos hostes*), wherein not only the ingredients, but the proper proportions are given. (1) This MS. is without a date affixed to it. Beckman, in his *History of Inventions*, says: "Of this Marcus Græcus nothing at present is known. According to some he lived in the ninth, but others with more probability place him in the thirteenth century." The Emperor Napoleon assigns about the same date to him. (2) If this be so, he was a contemporary of Roger Bacon. In the *Biographie Générale* he is described as "probably a Greek who lived towards the tenth century, anterior to the Arab physician, Joan Mesué, who lived in the eleventh century, who quotes him. The Bibliothèque Impériale possesses two copies of the treatise *Liber Ignium* (MSS. No. 7,156 and 7,158), one apparently of the fourteenth, the other of the fifteenth century. Hoefer, in his appendix to the first volume of *Histoire de la Chimie*, has reproduced *in extenso* this curious MS."

(1) Dutens, *Origine des Découvertes attribuées aux Modernes*, p. 197, edit. 1796.

(2) *Études*, iii. 15.

Another profound philosopher of the thirteenth century was he who was known as Albertus Magnus.(1) He, too, was accused of sorcery, a crime then imputed to most elevated minds. In one of his numerous works, *De Mirabilibus Mundi*, he gives a pyrotechnic formula, which evidently was *the* subject of the age, for making "flying fire."

A fifth contemporary pyrotechnist has lately been brought under notice by Sir Francis Palgrave:—"Frater Ferrarius, or Efferarius, who flourished in the thirteenth century, of whom little else is known except that he is claimed as belonging to one of the northern provinces of the Spanish peninsula. An inedited epistle, addressed to one Anselm, is preserved in the Bodleian. Purporting to be *translated from the Arabic* into Latin, it contains a selection of eighty-eight experiments, detailed with great clearness. The MS. appears to be of the age of Edward I. Amongst them are several receipts for making 'Greek fire' and 'flying fire,' the second of which contains the mode of compounding the nitrate powder, composed of 1 part of sulphur, 2 of charcoal of the wood of willow or lime-tree, and 6 of saltpetre, to be very finely ground upon marble or porphyry. He then proceeds to describe minutely the pyrotechnic cases in which the powder is to be contained, after which the powder is placed in a tube at your pleasure, either to be made to fly or to make thunder. . . . And note that the case for the

(1) A Dominican, born at Lauingen, in Suabia; bishop of Ratisbon in 1260; died at Cologne in 1280.

rocket should be long and thin; but for making thunder short and thick, and half filled," &c.(1)

Another receipt for explosive powder, in the proportion of eight parts of saltpetre, two of sulphur, and one of charcoal, is found in a MS. once forming part of the Spelman collection, lately possessed by Mr. Hudson Gurney: "De mixtione pulveris ad faciendum le Crake." Le Crake is evidently a cracker; nothing more nor less. The handwriting of the Spelman receipt, says Sir Francis Palgrave, is either at the close of the reign of Edward I., or at the beginning of that of his successor,(2) and that is just the time that Albert the Great, Roger Bacon, and probably Marcus Græcus were writing on the same subject, and, it may be added, perhaps copying from the same book, for the formulæ are evidently derived from the same source. Compare the prescription for nitrate powder, as given above, with the following passage of the treatise of Albertus Magnus:—

"*Ignis volans.*—Accipe libram unam sulphuris, libras duas carbonum salicis, libras sex salis petrosi; quæ tria subtilissime terantur in lapide marmore; —postea aliquid posteriùs ad libitum in tunicâ de papyro volanti vel tonitruum faciente ponatur.

"Tunica ad volandum debet esse longa, gracilis, pulvere illo optimo plena; ad faciendum vero tonitruum, brevis, grossa et semiplena."

Now hear Marcus Græcus:—

"*Re.*—Acc. *li.* i. sulfuris vivi; *li.* ii. carbonum

(1) Dedication to *Merchant and Friar*. (Palgrave, 1837.)
(2) *Ibid.*

tilliæ (vel cilliæ) vel salicis; vi. *li.* salispetrosi, quæ tria subtilissime terantur in lapide marmoreo. Postea pulverem ad libitum in tunicâ reponatis volatili, vel tonitruum facientem.

"*Nota.*—Tunica ad volandum debet esse gracilis et longa, et cum prædicto pulvere optimè conculcato repleta. Tunica vero tonitruum faciens debet esse brevis et grossa, et prædicto pulvere semiplena," &c.

The conviction conveyed by these comparisons is, that as these formulæ so exactly coincide, they must have been derived from a common source. Where was it?

A sort of universal belief has given to India or China the credit of being the birthplace of the destructive compound. Saltpetre, its chief ingredient, is found in quantity in Bengal, and in the north-west provinces of India, and, probably, on many of the vast plains eastward, in the direction of China.(1) The bare fact of its being found there is no proof that its chemical amalgamation was known to the natives, any more than the presence of coal would imply a knowledge of steam or gas; yet, if it were not found there, one could decide against the probability of that country being the first to discover its uses. The belief, however, rests on more than probability—on the authority of the earliest writers on Eastern affairs, before and after the Christian era; and it is difficult to conceive a motive for wilfully inventing myths.(2)

(1) Colonel Anderson on *The Manufacture of Gunpowder* (1862), p. 4.
(2) *Recueil des Mémoires sur les Chinois*, tom. ii., p. 492, quoted in *Études*, iii. 6.—Rees' *Encyclopædia*, "Gunpowder."

A modern writer, Sir George Staunton, in his account of the embassy to China in 1792, states that "nitre is the natural and daily produce of China and India; and there, accordingly, the knowledge of gunpowder seems to be coeval with that of the most distant historic events. Among the Chinese, it has been applied at all times to useful purposes, such as blasting rocks, and removing great obstructions, and to those of amusement, in making a vast variety of fire-works. It was also used as a defence, by undermining the probable passage of an army, and blowing him up." (Vol. ii., p. 292.) Without citing his authorities, this might be termed begging the question, and assuming a theory for granted.(1)

A colleague of his in the embassy, whom he quotes—Captain Parish—in reference to the embrasures in the Great Wall (which is said to have been completed B.C. 211), goes further still, and observes: "The soles of the embrasures were pierced with small holes, similar to those used in Europe for the reception of the swivels of wall-pieces. The holes appear to be part of the original construction of the walls; and it seems difficult to assign to them any other purpose than that of resistance to the recoil of fire-arms. The field-pieces seen in China are generally mounted with swivels, for which these holes are well calculated; and though the parapets are not capable of resisting cannon-shot, they are sufficiently strong to withstand these small pieces." (ii., p. 198.)

(1) See "On the Origin of Gunpowder," *Un. Ser. Journal,* 1852, pt. i., p. 39.

Now although there appears no reasonable doubt that the Chinese were in early possession of a combustible compound, there is no evidence that it was ever used as a projectile force, and we must agree with Sir George Staunton that "its force had not been directed through strong metallic tubes, as it was by Europeans soon after they had discovered that composition." (ii. 292.)

Be that as it may, it is quite certain that soon after men began to destroy one another—and that was at a very early period in human history—the agency of fire was employed: [1] fire and sword became almost inseparable terms.

> "Hi jaculis, illi certant defendere saxis
> *Molirique ignem*, nervoque aptare sagittis."
>
> *Æneid*, x. 131.

Perhaps the first stage of progress in the incendiary art was the use of boiling oils, pitch, and other substances, heated by the action of fire, employed in the defence of walled towns. Next we hear of (before the Christian era) a combustible preparation, the great noise and flame of which—likened to thunder and lightning—dismayed the assailants. The conquering army of Alexander the Great was turned aside and discomfited in the Punjaub, 327 B.C., by such apparently supernatural means. From the manner in which it is described, and the terror it occasioned, it is fair to presume that the knowledge of it was confined to Asia. The circumstance is

[1] See Judges ix. 49, 52.

mentioned by Philostratus, a Greek writer who lived in the first years of the Christian era, in his life of Apollonius Tyanæus. Speaking of a people of India, called Oxydracæ, he says :—"These truly wise men dwell between the rivers Hyphasis and Ganges; their country Alexander the Great never entered, deterred not by fear of the inhabitants, but, as I suppose, by religious considerations; for had he passed the Hyphasis, he might doubtless have made himself master of the country all round them; but their cities he could never have taken, though he had led a thousand as brave as Achilles, or three thousand such as Ajax to the assault, for they come not out to the field to fight those who attack them, but these holy men, beloved by the gods, overthrow their enemies with tempests and thunderbolts, shot from their walls.(1) It is said that the Egyptian Hercules and Bacchus, when they overran India, invaded this people also, and having prepared warlike engines, attempted to conquer them; they in the meantime made no show of resistance, appearing perfectly quiet and secure; but upon the enemy's near approach, he was repulsed with storms of lightning, and thunderbolts, hurled upon him from above." (Lib. ii., cap. xiv.)

The ancients were always poetical in their expressions. Dion Cassius reports that Caligula had machines which imitated thunder and lightning. (2)

(1) *῎Ου γαρ μιάχονται τοῖς προσειθοῦσιν ἀλλὰ διοσημείαις τε καὶ σκηπτοῖς βαλλοντες, ἀποκρούνται σφᾶς, ἱεροὶ και θεοφιλεῖς ὄντες.*

(2) *Rerum Romanorum*, lib. lix.

Seneca compares to thunder the noise occasioned by the balistæ and scorpions casting forth javelins.

Æneas, the tactician, who lived about 360 B.C., has bequeathed the formula by which "an inextinguishable conflagration" can be produced. "Take some pitch, sulphur, tow, manna, incense, and the parings of those gummy woods of which torches are made; set fire to the mixture, and throw it against the object which you wish to reduce to ashes." (1)

Ammianus Marcellinus, a Roman historian of the fourth century, in describing this fire, urges the necessity of projecting it by means of an arrow shot gently from a supple bow, because if shot rapidly, the composition might be extinguished; but the flame, when it comes in contact with a substance, burns with such tenacity, that water only inflames it the more, and it can only be extinguished by smothering it with dust. (2)

Greek Fire.

Towards the end of the seventh century of the Christian era, an inflammable composition was made known to the rulers of Byzantium, and immediately adopted by them. According to the historians of the Lower Empire, the invention is attributed to Callinicus, an architect of Heliopolis, who came to Constantinople in the year 673, at the period of the siege of it by the Arabs. By its influence the Saracenic fleet was destroyed in the next year. (3)

This composition is known as Greek fire, "*feu*

(1) Chap. xxxv.
(2) Lib. xxii., cap. iv.
(3) See Ludovic Lalanne, *Essai sur le feu grégeois.*

grégeois," or *grégois* in the French chronicles and romances, and "fyr gregys" in the English. The nature of its composition was ordered to be kept as a profound state secret by the rulers of Byzantium:— "Thou shouldst above all things," wrote the Emperor Constantine Porphyrogennetus to his son, "direct your care and your attention to the liquid fire, which is thrown by means of a tube; and if the secret is dared to be asked of thee, as it has often been of me, thou must refuse and reject this prayer, stating that this fire had been shown and revealed by an angel to the great and holy Christian Emperor Constantine. By this message, and by the angel himself, it was enjoined to him, according to the testimony of our fathers and forefathers, to prepare this fire but for Christians only, and solely in the imperial city; never to divulge it, nor allow it to be shown to any nation whatever. And that great Emperor [Constantine Pogonatus], to make certain of his successors' secrecy, caused to be engraved on the holy table of the Church of God curses against whoever should dare to reveal it to a foreign nation. He decreed that the traitor should be considered as unworthy of the name of Christian, or of any trust or honour; that were he possessed of any dignity, he should be deprived thereof. He proclaimed him anathematised for ever; he declared him infamous, whosoever he might be—emperor, primate, prince, or subject—who should attempt to violate this law."(1)

(1) *De Administrando Imperio*, c. xiii., in Meursius, vol. vi.—Bandari, *Imperium Orientale*, i. 64.

The injunction was steadfastly observed, and "Greek fire" remained a secret for centuries. The very mystery that surrounded it probably invested it with greater importance than it really deserved. The Emperor Leo the Philosopher, who died in 911, father of Constantine Porphyrogennetus, wrote a military treatise, in which some details are given of the manner of employing the fire; but, with this exception, no account of the composition, or of the mode in which it was used, was published—at least in any work that has descended to us—although its employment was undoubtedly the means of prolonging the existence of the Greek Empire. It is not until the year 1106, that the Princess Anna Comnena, in writing the history of the life of her father, the Emperor Alexis, breaks the silence, and tells us what it was. Resinous gums, reduced to powder and mixed with sulphur, poured into hollow canes or tubes, one end of which was lighted, and the contents blown out, if possible, into the eyes of the enemy, was the simple prescription. Subsequent accounts by various authors give a far more complicated mixture. In naval combats it was most efficacious, where the effects of fire were likely to prove the most disastrous. In an action against the Pisans by Alexis, the fire was emitted through metal tubes at the prows of vessels—which, being made to resemble the head of some monster, gave the appearance of fires being spouted out of their mouths. The barbarians were dismayed at the unaccustomed sight of fire, which, instead of burning upwards as in due

course, could be directed at will against objects either below or on either side. (1)

The Moslems at this period of course were not in possession of the secret; if they had ever possessed it, it had been lost in the lapse of ages, as it is now. In the eleventh century they had attained to it—when or whence acquired does not appear—but all the historians of the Crusades make repeated mention of the disastrous effects produced by the artificial fire employed by the Mussulmans. Joinville, who was an eye-witness of its effects, describes the terror it occasioned among the commanders of St. Louis's army in 1249. "It was," says he, "the most horrible thing that I had ever seen." The vessels containing the fire were projected from engines called *perrières*, or by means of great darts from *arbalestes à tour*. "The Christian warriors were recommended at every discharge to prostrate themselves on their elbows and knees, and cry mercy to our Lord." (2) Its unctuous nature enabled it to stick to the objects against which it was thrown, the effects of which would be increased in a hot and dry climate. A monkish historian, describing the siege of Acon or Acre, gives utterance to the popular belief:—

> "Pereat ô utinam ignis hujus vena,
> Non enim extinguitur aquâ sed arenâ,
> . . . .
> Ignis hic exterminat tantum Christianos,
> Incantatus namque est per illos prophanos,
> Ab hoc perpetuo Christe, libera nos."
>
> *Monachus Florent. de Expugnat. Aconensi.*

(1) *Alexiad* (translated), liv. xiii., edit. Paris, 1672.
(2) *Histoire du roy Saint Loys.*

A different sentiment from that expressed by Philostratus of the "holy men, beloved by the gods, who overthrew their enemies with tempests and thunderbolts!" Procopius, speaking of a similar fiery agency, says the Greeks call it the "oil of Medea," as though it was an infernal preparation of that sorceress. (1)

It is difficult to believe that the Crusaders were long in ignorance of the secret, but no doubt prejudice blinded them to the expediency of being taught by an enemy, and that enemy an infidel. Moreover, an art which rendered courage and physical strength useless was looked upon as abhorrent to sentiments of religion and the honour of chivalry. (2) "When a catapult was first seen at Lacedæmon," writes Camden, (3) "Archidamus exclaimed, 'O Hercules! now mankind is come to an end.' But what would he have said had he seen the cannon or great ordnance of our age, which make all ancient engines to cease, that it might seem to have been invented by practice of the devil to the destruction of mankind, as the only enemy of true valour and manful courageousness by murdering afar off." What would the venerable historiographer himself have said had he witnessed the rifled ordnance of the present day?

Poets and divines appear to have conspired to represent it as the invention of demons, or men of

(1) Αγγεῖα δὲ θείου τε καὶ ἄσφαλτου ἐμπλησάμενοι και φαρμάκου, ὕπερ Μῆδοι μὲν ναφθαν καλοῦσιν, Ἕλληνες δὲ Μηδειας ἔλαιον. (*De Bell. Gotth.*, iv. 11.)

(2) See Favé and Reignaud, *Du Feu Grégeois*, p. 210.

(3) *Remaines* (*Artillerie*), p. 267.

demoniacal disposition, and also as the resort of cowardice. Petrarch leads the way. Melancthon refers the invention to "Diabolo architecto." Our own Milton sings:—

> "In hollow cube he trained
> His devilish engineering."

Camden and Spelman take a higher and, perhaps, a more just view of the subject. "Some there are," says the former, "which think that thereby hath been the saving of many lives; for that sieges, before the common use of them, continued longer, to the greater loss of people, and more fields were fought with slaughter of greater multitudes." Sir Henry Spelman is bolder still. He describes the gun as "Machina ad stabilienda Humana Imperia, potiùs quam ad delendum humanum genus. Execrantur pacis invidi hanc machinam: mihi autem semper visa est non sine Dei opt. max. providentia revelata." Do we not now sometimes hear the sentiment expressed, that no courage will be required when the seaman is enclosed in the armour of the ironclad? Whatever the inventive genius of man can contrive which shall, on the whole, shorten the duration of the calamity of war, or mitigate its evils, however on a first view it may appear to bear the stamp of cruelty, is really a great triumph for humanity.

In the metrical romance of *Richard Cœur de Lyon,* the king is represented as scattering Greek fire on Saladin's ships at the siege of Acre. Possibly this may have been the case, as that eminent warrior

was not remarkable for his subservience to the decrees of the Church :—

> "Kyng Richard, out of his galye,
> Caste wylde-fyr into the skeye,
> And fyr Gregeys into the see,
> And al on fyr wer thê.
> . . . . . .
> The see brent all off for Gregeys."

Roger de Hoveden records that Philip Augustus of France used it at the siege of Dieppe, for burning the English vessels in that harbour.(1) Even after the use of gunpowder as a propelling agent, we are told that the garrison of Ypres, when besieged by the Bishop of Norwich in 1383, successfully defended itself with "stones, arrows, lances, Greek fire, and missiles called guns."(2)

Several attempts have been made to obtain the restoration of Greek fire into modern service. Grose states than an English chemist received in his time an annual allowance for keeping secret a composition of this nature, the Government being unwilling to increase the destruction and cruelty of war (i. 373), and in a French *Essai sur les pretendues découvertes nouvelles*, published in 1803, it is stated "le secret du feu grégeois a été retrouvé en France sous le ministère du Duc d'Aiguillon."

It would be strange if the "secret" were recovered in the present day. The *Evening Freeman* of Decem-

(1) "Venientes ad villam de Depe, quod rex Angliæ paulo ante re-ædificaverat, combusserunt eam, et naves, quæ in portu erant, injecto igne Græco, in cineres redigerunt." (A.D. 1196.)

(2) Walsingham, *Hist. Angl.*, p. 30.

ber 10, 1866, has the following paragraph:—"A most important and extensive seizure was made this day by the detective force at Ballybough Road, North Strand. From information received, the officers, it appears, proceeded to premises situate in the above locality, and after effecting an entrance they discovered a large quantity of 'liquid' or 'Greek fire,' and all the materials employed in its manufacture. The material was removed in a float to the stores in the Lower Castle-yard, where it now lies."

Up to this stage of inquiry, the composition has been regarded only for the purpose of frightening the enemy, or setting fire to his works, and was nothing more than a rocket or cracker. But who first confined the powder in an iron instead of a paper case, and made it do additional duty by propelling a missile, will probably never be ascertained; but between 1326 and 1340, the invention was adopted by every country of the then civilised world. So stimulated was the inventive genius even of those torpid times, by the surprising nature of the new power, that cannon were constructed to a size at least only surpassed at the present time. We read of a bombard cast in 1453, 15 feet long, and weighing 15,356 lbs., which threw stone-shot of 18 inches in diameter, of an estimated weight of 300 lbs.(1) In 1807, when Sir John Duckworth passed the Dardanelles, his ships were severely injured by stone-shot, weighing between 700 and 800 lbs., most likely *confrères* of the big

(1) *Études*, iii., liv. i., ch. iv., p. 130.

gun said to have been cast by Urban, a Hungarian engineer, for Mahomet II., to batter the walls of Constantinople in 1453.(1)

Manufacture of Gunpowder.

The manufacture of gunpowder appears at first to have been limited to a simple mixture of the three ingredients in equal parts. In 1410, the preparations were: saltpetre, 3; sulphur, 2; charcoal, 2. In 1480, saltpetre, 8; sulphur, 3; charcoal, 3. In 1520, saltpetre, 4; charcoal, 1; sulphur, 1. In 1647, saltpetre, 6; sulphur, 1; charcoal, 1.(2) The proportions adopted in England for military purposes at the present date are in 100 parts—75 saltpetre, 15 charcoal, 10 sulphur.

Powder was at first not corned or grained, but used in the form of dust, "mealed," as it was termed. Subsequently two kinds of powder were used, one in its mealed state, for priming only, as being more readily ignited by the match, which was termed serpentine; the other corned or granulated for the charge in the barrel. In a return of supplies delivered at the Tower in 1559, we find "800 lbs. of

(1) Creasy's *Ottoman Turks*, p. 129.—James's *Naval Hist.*—Gibbon's *Decline*, vol. ii., ch. cxviii.—In the *Thesaurus* of Martini and Durand, there is a narrative of the siege of Constantinople, in which occurs the following passage:—"Ou dit siege s'y avoit plusieurs bombardes et autres instruments pour abatre le mur et entre les autres une grande bombarde de metail, tirant pierre de neuf espaulx et quatre dois d'entour, et pesant mille quatre cens cinquante une livres, les autres tirans dix ou douze centeners; lesquelles bombardes tiroient chascun jour de cent à six-vingt coups et dura cecy cinquante-cinq jours: par quoy on compte qu'ils employerent chascun jour mille livres de poudre de bombarde," &c. (Edit. 1717; tom. i., p. 1,819.)

(2) Nye (Nathaniel), *Art of Gunnery*, &c. 8vo. Lond., 1647.

serpentine powder at 8d. the lb., and 475 lbs. of corne powder at 10d. the lb." (*Archæol.*, xxxvii. 481.)

From a book of accounts of Edward III.'s household expenses, it appears that from December 25th, 1344, to the 18th of October, 1347, payment was made for 912 lbs. of saltpetre, and 886 lbs. of quick sulphur for the King's guns (*pro gunnis suis*).(1) The fact, that a few weeks before the King set out on his expedition to France, and three months before the battle of Cressy, the keeper of the King's armour was employed in preparing gunpowder, is important corroborative evidence of Edward having guns at Crecy.

In September, 1347, the King being still at Calais, 2,021 lbs. of saltpetre were bought at 1s. 6d. per lb., and 466 lbs. of quick sulphur at 8d. per lb.: a very high price for these ingredients.(2) It will be observed here that charcoal is not included. No doubt it was mixed with the other two ingredients, but being easily procurable at any time it was not kept in store.

Richard II., in 1378, directed Thomas Norwich to purchase, among other things, "two great and two lesser engines called canons, 600 stones for the same, and for other engines; also 300 lbs. of saltpetre, 100 lbs. of quick sulphur, and 1 ton of willow charcoal."(3)

In the time of Henry VI., an enterprising merchant of London, John Judde, who was skilled in

(1) *Archæol.*, xxxii. 382. (2) *Ibid.* (3) Rymer, vii. 187.

devising warlike instruments, made at his own expense sixty guns called serpentines, "and also stuff for gonnepowdre, of saltpietre and sulphur, to the weight of xx. tonne" (no mention of charcoal); which he offered to deliver to the King's use, on certain conditions; in consideration of which good services the King, by letters patent dated December, 1456, constituted him Master of the Ordnance for life.(1)

Mr. Hewitt (*Anc. Arm.*, iii. 682) calls attention to the curious fact of contraband goods being smuggled into England at the beginning of Elizabeth's reign, the chief smuggler being no less a personage than Sir Thomas Gresham—the receivers the Queen's ministers—and the "smuggler's cave," the Tower of London! "You shall undyrstand," writes Gresham, "that every piece of doble geyne velvet is one thowsand weight of corrin powdyr (corned powder), and one piece of velvet of pill and a halfe is 1 M. waight of serpentyne powder. You must devyse some waye whereby the thinges may be secretly conveyed to the Tower. If it is discovered (at Antwerp), there is nothing short of death with the searcher and with him who enters it at the custom-house." About this time, Gresham imported 260,000 weight of serpentine powder at £3 the cwt.; 160,000 weight of corned powder at £3 6s. 8d. the cwt.; saltpetre, sulphur, arms, armour, and hand-guns, amounting altogether to £108,956 13s. 4d.(2)

(1) *Excerpta Historica* (Bentley), p. 10.

(2) Burgon's *Life of Sir T. Gresham*, i. 286.—The original documents are in the S. P. O., *ad an.* 1559-60.

At the latter part of the reign of Elizabeth, public attention was drawn to the necessity of establishing at home the manufacture of gunpowder, which had hitherto been chiefly imported from abroad, and had been, as at the present time, an open trade; but the Government being compelled, by the menacing attitude which Spain had assumed, to provide more efficient means of defence, commenced the granting of patents for the manufacture of gunpowder, which constituted it a monopoly in the hands of those whom the Government thought fit to entrust with the privilege. The first establishment of gunpowder-mills of any importance appears to have been at Long Ditton, near Kingston, in Surrey, set on foot by George Evelyn, grandfather of the celebrated Sir John Evelyn. He had mills also at Leigh Place, near Godstone, in the same county. The mills at Faversham, in Kent, were also in operation in the same reign.(1)

In one of the Burghley papers (Lansd. MSS., No. 58, art. 63), entitled, *Commodities and Discommodities as may grow by the Making of Peter*, dated January, 1588, certain persons petition for a charter to seek and search for saltpetre, with other powers; and they offer to supply the Queen with all the powder they can make at 8d. the pound.

"A.D. 1588, January 25.—Evelyn George, Willes Richard, and Evelyn John.—Saltpetre for gunpowder. A licence granted to digg and worke for salt peter

(1) *A Short Account of the Early Manufacture of Gunpowder in England*, by W. H. Hart (1855).

within the realme of England and Ireland, as well within her Ma[ties] owne proper landes and possessions, as also within the lands and possessions of anie her Ma[ties] subjects, except the citie of London and twoe myles distant rounde aboute, and the counties of Yorke, Northumberland, Westm'land, Cumberland, and the Bishoppricke of Durham, during the terme of eleven years, and with this pviso, that they make upp againe and lay all such places as shalbe by them digged in as good state as they found the same. Subs. by the L. Treas., and prouved by Mr. Windebancke."(1)

"A.D. 1604.—Evelin John, Harding Richard, and Evelin Robert, Esqs.—Gunpowder. A grant for 21 years for the furnishing of his Highness' store of gonnepowder, &c., that they may make within England and Ireland all manner of saltpeter and gonnepowder; and that they may enter, break up, and digge in all convenient places for saltpeter, they repayring such places again, with authority to take carts after 4[d.] the mile, not compelling them to travel above ix. miles, nor laden with more weight than 20c. to the lode," &c.(2)

In 1607, "a license and graunt" were conferred on the Earl of Worcester for the making and working of saltpetre and gunpowder for the term of twenty-one years.

This privilege was often most grievously abused;

(1) *Abridgments of the Specifications relating to Fire-arms, &c.* Printed by order of the Commissioners of Patents. London, 1859. P. 19.

(2) *Ibid.*

in fact, it is a question, says Mr. Hart, whether the unlawful acts and behaviour of these saltpetre-men did not form one link in the great chain of events which finally led to the overthrow and ruin of the unhappy Charles I.

One of the first acts of the Long Parliament, in 1641, was "for the free making saltpetre and gunpowder within the kingdom, which," says Clarendon (vol. i., book iii., p. 402), "was a part of the prerogative; and not only considerable, as it restrained that precious and dangerous commodity from vulgar hands, but as in truth it brought a considerable revenue to the Crown; and more to those whom the Crown gratified and obliged by that license. The pretence for this exemption was 'the unjustifiable proceeding of those (or of inferior persons qualified by them) who had been trusted in that employment,' by whom it cannot be denied many men suffered; but the true reason was that thereby they might be sure to have in readiness a good stock in that commodity against the time their occasions should call them."(1)

Possibly Shakespeare may refer to the advantages of these monopolists, in the *First Part of King Henry IV.* (act i., scene 3):—

> "And that it was great pity, so it was,
> That villainous salt-petre should be digged
> Out of the bowels of the harmless earth."

Gun.

Gun is the fire-arm or weapon which forcibly discharges a ball or other hard and solid matter through

(1) *Proceedings Soc. Ant.*, vol. ii., No. 4, p. 216.

a cylindric tube. In common parlance, it is used to denote any of the species of fire-arms, pistols and mortars alone excepted; but in the more restricted and military sense, it refers to ordnance alone.

The most probable etymology of the word seems to be from the ancient ballistic engine, *mangona*;(1) a supposition strengthened by the fact that the earliest "gonnes," like the *mangonæ*, were employed to cast stones. So also the word "cannon," derived from *canna*, designated the tube by which Greek fire was directed. What were called cannon by the French were called gonnes by the English. "Gunnæ plures cum magna quantitate pulveris," says Walsingham (p. 323), were captured from the fleet off Sluys, in 1386. These guns, he says, "Galli canones vocant" (p. 398).

It is generally admitted that the first authentic account of the use of ordnance by *Christians* was at Florence, in 1326.(2) From an expression made use of by Barbour, in his metrical *Life of Robert Bruce*, it has been inferred by many that Edward III. used guns in his first campaign against the Scots, in 1327:—

> "Twa novelryis that day tha saw
> That forouth in Scotland had been nane.
> Tymbris [*crests*] for helmis was the tane,
> . . . .
> The tother crakis war of wer
> That tha befor herd nevir er."

The Brus. (Spalding Club edit.), ch. cxli., p. 452.

(1) See Mr. Albert Way's notes, in the *Promptorium Parvulorum*, on the word "Gunne," p. 218.

(2) *Riformagioni di Firenze*, xxiii. 65.—Conde asserts that the

Now if "crakes of war" meant cannon, this would certainly have been a very early adoption of the invention, considering that the English never were rapid in the adoption of "novelties," and that the first authentic French document in which powder and cannon are mentioned, is in July, 1338.(1)

Barbour, however, is a good authority; and although, probably, not an eye-witness of the circum-

Arabs at the siege of Bassetha, in 1325, used machines which cast forth globes of fire with the sound of thunder, and had the effect of destroying walls and towers. (*Historia de la Dominacion de los Arabes en España.* 8vo, Paris, 1840. See also before, at the siege of Niebla, in 1257.)

(1) This document is very curious. It is preserved in the Imperial Library at Paris:—"Sachent tous que je Guillaume du Moulin de Bouloigne, ai eu et receu de Thomas Fouques, garde du clos des galées du Roy nostre sire à Rouen [the marine arsenal at Rouen], un pot de fer à traire garros [*carreaux*, quarrels] à feu, quarante-huit garros ferrés et empanés [*empennés*, feathered] en deux cassez, une livre de salpêtre et demie livre de souffre vif pour fare poudre pour traire les diz garros. Donné à Leure, le 11e jour de juillet l'an mil ccc trente et huit." This appears to have been part of the armament for the expedition to attack Southampton, which was fitted out at Leure and Harfleur. (Lacabane, *Biblioth. de l'Ecole des Chartes*, 2me. S., i. 51.)—It is remarkable that the fire-arm is called simply "an iron pot,"* a proof of the infancy of the art. Here also saltpetre and sulphur are only mentioned, as in other instances before cited, but no doubt it was mixed with charcoal. The Emperor Napoleon speculates ingeniously on the strength of the powder and the weight of the projectiles. He arrives at the conclusion that 1 lb. of saltpetre and half a pound of sulphur could not be mixed with more than half a pound of charcoal without losing its explosive force, and therefore the 48 quarrels had to be discharged with 2 lbs. of powder, giving about seven-tenths of an ounce for each charge, and that each arrow could only have weighed about seven ounces. (*Études*, iii. 74.)

* The earliest specimens of gunnery were in the shape of a pot or mortar, which may tend to strengthen the assertion that Berthold Schwartz, whilst pounding a chemical composition in his mortar, a spark from the fire of the laboratory caused it suddenly to explode, shattering the mortar into pieces, which it threw to a distance. Struck with this phenomenon, he considered how it could be applied to casting the stones and arrows then used in sieges.

stance just mentioned, for it is uncertain when he was born, still he lived in the times of which he wrote. He was a high dignitary of the Church, and a learned man.[1] Mr. Ellis, in his specimens of the early English poets, says that Barbour "is to be considered in the double character of historian and poet. In the first, his authority is quoted by writers who immediately succeeded him, as the most authentic that can be adduced." (i. 211, edit. 1811.)

Some "novelty" in warfare evidently took place in 1327—a fact not likely to be soon forgotten. In an earlier place in his poem, speaking of the siege of Berwick by Edward II. in 1319, and of Robert Bruce's famous defence, he states that the besieged were well provided with great engines, and cranes, and springalds, and all appliances "to defend castells":—

> "Bot gynnys for crakys had he nane
> For in Scotland girt than but wane
> The uss off thaim had not bene sene."

He does not say *gonnes* but *gyns* for "crakys." Now surely the crakis or craks of war, which he states as having made their first appearance in Scotland, were "*les crakes*," which have been already noticed, and from which we derive our word "cracker."

First Cannon in England.

If July, 1338, be the first notice of ordnance in France, the English, in this instance, have the advantage, and beat the French by a month! For

[1] Archdeacon of Aberdeen.—"Of his age we have some indications which lead to the conclusion that he was born within a very few years after Bruce's crowning victory of Bannockburn." (His life, in *The Brus;* printed for Spalding Club.)

among the stores of the hulk, *Christopher of the Tower*, in June, 1338, were three iron cannon with five chambers, a hand-gun, and stone bags to hold shot. The barge called the *Mary of the Tower* had an iron cannon with two chambers, and another of brass with one chamber; and a ship called a "carak" had one cannon. Two iron cannons "without stuff" are also mentioned; and in the King's private wardrobe were two great guns of copper.(1) The testimony here is unquestionable; and this is the first mention of cannon in England that is known.

The first allusion to cannon by Froissart occurs in his account of the siege of Quesnoy by the French, in 1340, and he appears to take for granted that it was a thing well known. He says the invaders "made a feint, as if they intended to attack the town; but it was so well provided with good men and arms, and *grand' artillerie*, that they would only have lost their pains. The enemy, however, skirmished before the approaches to the town, but they were forced to retreat; "car ceux du Quesnoy discliquèrent canons et bombardes qui jetoient grands carreaux." (i. 98.) No particular stress is laid on the fact that artillery was then employed; it may therefore be inferred that he knew, and supposed that others knew, of its having been used before. Intimate relations existed between England and Hainault at that time. Edward had married Philippa, daughter of the Count of Hainault, and political and commercial interests bound the two

(1) Nicolas's *Hist. of the Royal Navy*, ii. 186.

countries in close bonds of amity. A large body of Hainaultiers formed part of Edward's expedition in 1327, and soon after the termination of that he led an army into Flanders, and fought with the Hainaultiers against the French; and the King was probably indebted to the Flemings for the powerful auxiliary of artillery which contributed to the success of his French campaigns.

Whether Edward III. employed cannon at Crecy is a question which has given rise to much discussion. Villani, and the author of the *Grandes Chroniques de St. Denis*, say he did.(1) Froissart does not mention them; therefore it has been urged that there were none, on the grounds that Villani, who was a long way off from the scene of action, and, as an Italian, might be excused for endeavouring to attribute the tergiversation of the Genoese cross-bowmen to extraordinary causes, whilst the other would feel interested in the repulse of so large a French army by a small English one.

If there were anything in this latter supposition, it might be said on the other side that the same senti-

(1) "E ordino il re d' Inghilterra i suoi arcieri, che n' harea gran quantità su per le carsa, e tali di sotto, e con bombarde, che saeltavano pollottole di ferro con fuoco per impaurire e disertare i Cavalli de' Francesci . . . sanza i colpi delle bombarde che facieno si grande tremuoto e romore che parca che iddio tonasse, con grande uccisione di gente e sfondamento di Cavalli." (Villani, *Hist. Florentina:* Muratori, xiii.)

"Lisquieulx Anglois getterent trois canons donc il advint que les Genevois arbalestriers, qui estoient ou premier front, tournerent le dos et laissierent le traire, si ne scet ou si ce fut traison, ou non." (*Grandes Chroniques de St. Denis*, Cotton. MS., *Nero*, E, fol. 397.)

ments which would have induced the other writers to volunteer such a statement, might equally have operated on the silence of Froissart, whose prejudices (judging from his writings) were decidedly Anglican. But the silence of that chronicler does not disprove a positive statement made on credible authority. Villani was evidently well informed as to the events of his time,(1) and the *Chroniques de St. Denis* are historically accurate. Moreover, on the testimony of a modern French author, a MS. Froissart preserved in the Library of Amiens expressly mentions the employment of cannon at Crecy. "Et li Angles descliquerent aucuns canons qu'il avoient en la bataille pour esbahir les Genevois."(2)

It seems somewhat presumptuous in an Englishman to pronounce on the authenticity of a French MS.; but whether this passage be an interpolation or not, it is quite certain that if the effect produced by the guns had been so important as to decide the success of the day, Froissart could not have passed them over in silence.

It must also be borne in mind that Villani, who died of the plague at Florence two years after—namely, in 1348—must have written his account of the battle immediately after it took place, and when all the circumstances were well known, whereas Froissart was at that time a boy of only nine years of age; but

(1) Sismondi pays this compliment to him: "L'histoire était écrite avec bonne foi, avec une recherche scrupuleuse de la verité avec une naïveté pleine de grace."

(2) Mentioned by M. Louandre, in his *Histoire d'Abbeville et du Comté de Ponthieu*, i. 236. (Paris, 1844.)

as a Fleming, he had probably been familiar with the manufacture and sale of cannon, and therefore did not feel it necessary to make particular mention of them, except on extraordinary instances. Villani also states that the English (under Lord Derby) had iron guns before Monsegur, in the preceding year (1345).

The researches of two modern antiquaries have put the matter beyond question. It appears that in the period of which we are speaking the Tower of London was, as it now is, the great deposit of the King's weapons of war. They were considered as belonging to one of the King's wardrobes, and the officer who had charge of them was called Clerk or Keeper of the King's Privy Wardrobe at the Tower. The regalia, the menagerie, and many other things pertaining to the royal dignity, were also in charge of this officer.

Mr. Hunter(1) informs us, that among the records of the Exchequer are sundry payments to Thomas de Rolleston, for things provided by him for the King's use, from December 25 (18 Edward III.), 1344, to the 18th of October, 1347, he being at the time Keeper of the Privy Wardrobe in the Tower. Amongst the items were "huces" for the balistæ, leathern cases for bows and arrows, a tent for the King's own use, and other things connected with affairs of war; and in the midst of them occurs the following pertinent entry:—" Eidem Thomæ super

(1) *Proofs of the Early Use of Gunpowder in the English Army*, by Joseph Hunter, F.S.A., late Assistant Keeper of the Records. (*Archæol.*, xxxii. 380.)

facturam pulveris pro ingeniis, et emendatione diversarum armtaurarum—xl. sol."—*Pulvis pro ingeniis*, when instruments of war are the subject, can scarcely be anything but gunpowder; and when we find among the payments that there was money paid for a tent which was especially intended for the King's own use, we can hardly doubt, though the account extends over three years, 1344 to 1347, that these payments to Rolleston were made before the departure of the expedition of 1346, and in contemplation of it.

"But in this," continues Mr. Hunter, "we are not left to conjecture or inference; for besides this account of issues from the King's chamber, we have the enrolment of another account, in which payments from another department to the same officer, at the same time, and for the same service, are noted. Here we find the following decisive passage:—"And to the same Thomas de Rolleston, by the hands of William de Stanes, for the King's use for his guns, 912 pounds of saltpetre and 886 pounds of quick sulphur, in pursuance of a writ of the King, bearing date the 10th of May, in the twentieth year of his reign" (1346), &c.

On July the 1st, 1346, the King was at Freshwater, in the Isle of Wight, waiting for a favourable wind to transport his army to France, so that this can leave no doubt that a few weeks before the King set out on his expedition to France, and three months before the battle of Crecy, the keeper of the King's armour was employed in providing powder for the King's guns.

There is no doubt but that charcoal, although not specified, was to be added to the two other ingredients. Powder, without it, would be explosive, but not propulsive, and those guns were certainly intended for something more than crackers. Charcoal is not mentioned in the provision for "the iron pot" of Boulogne, although forty-eight feathered bolts had to be discharged from it. A curious evidence is supplied by an English author, whose writings are contemporary, or nearly so, with the documents mentioned above. John Arderne, a skilful surgeon in the time of Edward III. (before mentioned in reference to the Prince of Wales's feathers) gives us, in his *Practica*, various directions for compounding "fewes Grégois," and "fewe volant," the latter being a sort of oleaginous mixture with which a tube being filled, and ignited by a match, would fly in any direction. A marginal representation of such a missile is given. In the following passage he describes another kind of "fewe volant," being, in fact, gunpowder, and apparently intended to be used at present. His recipe is as follows:—"Prenez j. lib. de soufre vif, de charbones de saux (*i.e.*, weloghe) ij. lib., de saltpetre vj. lib. Se les fetez bien et sotelment moudre sur un piere de marbre, puis bultez le poudre parmy un sotille coverchief. C'est poudre vault à gettere pilotes de fer, ou de plom, ou dareyne, ove un instrument qe lem appelle gonne." (See Sloane MSS., 335,795.)

It is impossible to say how many discharges this amount of powder was calculated to make. It is

difficult to suppose that it was intended for one charge only; nor can we estimate very precisely how many pounds of gunpowder the 912 lbs. of saltpetre and the 886 lbs. of sulphur would make, without knowing the amount of charcoal to be added; but it appears to have been exhausted before the end of the year; for in November following, when the King was before Calais, he issued another writ, bearing date the 25th of that month, in which he commands that all the saltpetre and sulphur that was anywhere to be sold should be bought for the use of his guns.

We are indebted to Mr. Burtt(1) for additional evidence on this subject. In an examination of the Pipe Rolls of the Exchequer between the years 1344 and 1351, he found a summary of the documents noticed by Mr. Hunter, and of others relating to similar supplies of stores for the King's war in France, with these important additions, "Gunnis cum sagittis et pellotis"(2) and "gunnis cum pelotis et pulvere pro eisdem gunnis," also "x. gunnis cum telar (guns with stocks or beds); vj. pecie plumbi, v. barelle pulveris, et c. magn' pelot' plumbi pro eisdem gunnis."

The orders for these were given successively on the 1st of February, 1345, and 4th of March, and

(1) Assistant Keeper of the Public Records.

(2) These pellets were sometimes made of earth (baked clay, probably), as are mentioned in a proclamation of Edward II., against using offensive weapons in the city of London, in 1319:—"Lapides ac pelotes terreas ad hoc aptas, et alia nociva emittunt, per balistas et arcus supradictos." (Rymer, 13 Edw. II.)

the 10th of May, 1346, and they were *to be shipped* (*pro passagio Regis eskippare*). The King landed at La Hogue on the 12th of July, 1346.

No reasonable doubt can exist, that the King prepared guns for service in his expedition to France, and that they were small field-pieces; and it is more probable that he took them along with him, than that he should have left them on board the fleet, a great part of which was ordered home, the remainder was sent to ravage the coast. The siege of Calais, if some of the chroniclers are to be believed, was an after-thought, Edward's original design being to have proceeded to Guienne, to relieve the Earl of Derby, who was hard pressed there, and that it was only after he had embarked that he altered his course. Therefore there is every probability that "the three cannons" spoken of in the Chronicle of St. Denis, and possibly more, made their appearance at Crecy; but as the Emperor of France sagaciously observes, "the three guns at Crecy could only be compared to three of our modern muskets fired off once. How could three musket-shots put to flight 50,000 men?"(1) And that, doubtless, is the reason why Froissart did not specify them. The employment of cannon was no uncommon thing. Froissart says that the English brought up at the siege of the castle of La Roche-sur-Yon "plusieurs canons et espringalles qu'ils avoient de pourvéance en leur ost et *pourvus de longtemps et usagés de mener.*"(2) That was, however, in 1369.

(1) *Études*, i. 42. (2) *Chron.*, i. 585.

Up to this date guns were used in the field, or *from* the walls of besieged places, never *against* them. What effect could have been produced by guns of such small calibre discharging leaden pellets or feathered arrows against stone walls? (1) When the Duke of Normandy besieged Aiguillon in 1346, and found all his attacks unsuccessful, he sent to Toulouse for eight of the largest *engines* which could be procured, and made his carpenters provide four more. (Froissart, i. 214.) Not till 1377 have we a positive statement of cannon being employed against walls. The French besieging the castle of Odruick, brought up cannon, "qui portoient carreaux" (probably balls) "de deux cents pesant, ... qui pertuisoient les murs." (*Ibid.*, p. 716.)

Why did Froissart mention the use of cannon and bombards at Quesnoy, in 1340? Because they produced a decided effect there. But they were used only by the besieged, and they discharged only quarrels, and the attacking party were obliged to

(1) As somewhat in illustration of this, an anecdote related by the Hon. Robert Curzon, in the *Archæological Journal* (No. 85, 1865, p. 2), is worth repeating here:—"Many years ago I was dining in the refectory with the monks in the monastery of St. Katherine, on Mount Sinai (an ancient building of the fifth century), when we heard a great noise of firing guns and shouting outside. I immediately inquired what it was, when a monk walked leisurely into the room and said, 'It is only the Gabili tribe of Arabs firing at the walls because we will not give them any more bread;" so we went on with our dinner. The Arabs continued their attack for some time, till, being out of powder, or out of patience, they drew off, without having given the slightest alarm to the inhabitants of the fortified monastery."—Powder was too scarce and valuable an article for *our* ancestors to have made such a useless demonstration.

draw off, because they were afraid of their horses being wounded. (i. 98.)

On the 1st and 2nd of September, Edward III., being then on the march to Calais, wrote orders that two engines with apparatus, ten guns with their beds (*telar*), of which two were large; five small barrels of saltpetre, and other powder, for the said guns; seventy-three large leaden shot, thirty-one small; six pieces of lead, together with various implements, such as anvils, hammers,(1) &c., should be dispatched to Calais. We may infer, from the issuing of these orders, that the new mode of warfare with guns was in the King's opinion successful. He had now twenty guns with him before Calais. They must have been very small, considering that half a small barrel of gunpowder was considered sufficient ammunition for them, and that this lasted till the end of November. They could not have been intended for a battering train.

One hundred small Ribaudequins(2) were ordered

(1) Item, reddit compotum de ij. ingeniis cum apparatu, x. gunnis cum telar' unde ij. gross', v. parvis barellis cum salpetre, sulphure vivo et alio pulvere pro dictis gunnis, lxxiij. pellot' plumbi grossis, xxxj. parvis pellot, vj. peciis plumbi, ij. incudibus, &c., per duo brevia Regis, quorum j. datum primo die Septembris, et aliud secundo die Septembris, anno xx°." (*Archæol. Jour.*, xix., p. 75.)

(2) Ribaudequin—in Latin, *Ribaudequinus* (Du Cange)—was a large cross-bow on a carriage, which threw javelins of five or six feet in length with great force. (See Roquefort's *Glossary*, and De Vigne's *Vade-Mecum du Peintre*, ii., pl. A, p. 41). Ribaudeaux were originally, as Froissart describes them (ii. 205), high wheel-barrows, with long iron pikes projecting in front, which were wheeled in front of troops in battle array—a sort of *chevaux de Frise*. At a later date small cannon were placed on these trucks, in lieu or in aid of the pikes. (Pièrre de Fenin, p. 550; *Panthéon Litt.*)

to be constructed in the previous year, "pro passagio Regis versus Normanniam," and there was a great engine in the Tower which was to be dispatched, and more work was expected most likely from these than from the twenty guns. In fact, the guns of this date were only calculated to do the work of arbalists, like the "iron pot" of Rouen (which may aptly be called *un pot au feu*), which shot arrows, and the "grand' artillerie" at Quesnoy, which also discharged quarrels. At the siege of Calais, we have already learnt that Edward III. and his council worked night and day to devise *engines* to harass the enemy (*ante*, p. 166), and the town was completely surrounded on the land-side by a town of huts, to prevent the possibility of the arrival of supplies or of assistance from that quarter; and on the sea-side, to command the approach to the harbour, a lofty wooden tower was erected, strong and well "brattished," abundantly supplied with espringals, bombards, arcs-à-tour, and other engines, with a garrison of forty men-at-arms, and 200 archers. Thus it is plain, that artillery in its modern signification played no conspicuous part in sieges up to this date.

Guns or bombards (these terms seem synonymous) were at first constructed in shape like a mortar. A good specimen of one of the earliest is preserved in the Rotunda, Woolwich. It is a wrought-iron 15-inch bombard for throwing shot of about 160 lbs. weight; calibre, 15·4 inches; length of chamber, 14·0 inches; length of chase, 34·0 inches; total length, 44 inches; present weight, 6 cwt. The interior is of cast-iron.

This curious piece of ordnance is said to have been found in the moat of Bodiam Castle, Sussex, and was preserved for many years in Battle Abbey. It is at least as old as the earliest part of the fifteenth century.(1) (See Plate XV.) They were at first made generally of wrought-iron, but some of brass and some of copper,(2) which of course were cast.

The next change seems to have been to the cylindric form, like the tubes from which Greek fire was originally ejected, a duty which the guns of the fourteenth century were also called upon to perform. At the siege of the castle of Breteuil by King John of France, in 1356, the garrison of the castle being well provided with cannon which *threw fire* and great quarrels, set fire to a wooden belfry, which had been constructed by the enemy. They shot fire upon it and also quarrels. The fire which was Greek set it on fire.(3) Again, at the siege of the castle of Romorentin by the Black Prince in the same year, we hear of "cannon which shot quarrels and 'feu grégèois,' and the place was set on fire by cannon and by bombards."(4) It will be observed that cannon and bombards are here indifferently mixed up, so that it is impossible to decide which threw quarrels, and which Greek fire.(5)

(1) *Official Catalogue*, p. i.

(2) Nicolas, *Hist. of the Royal Navy*.

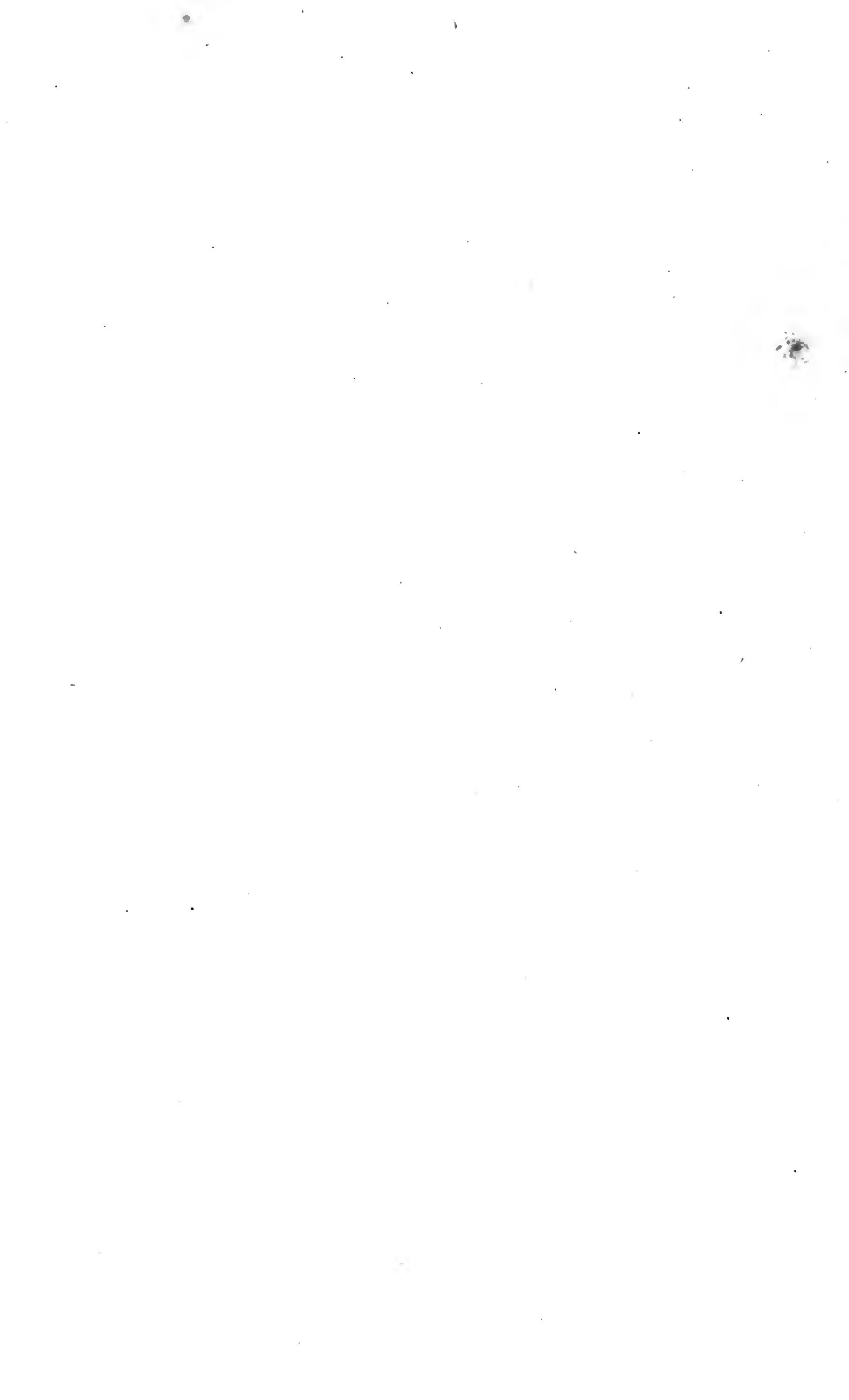
(3) Froissart, i. 332.

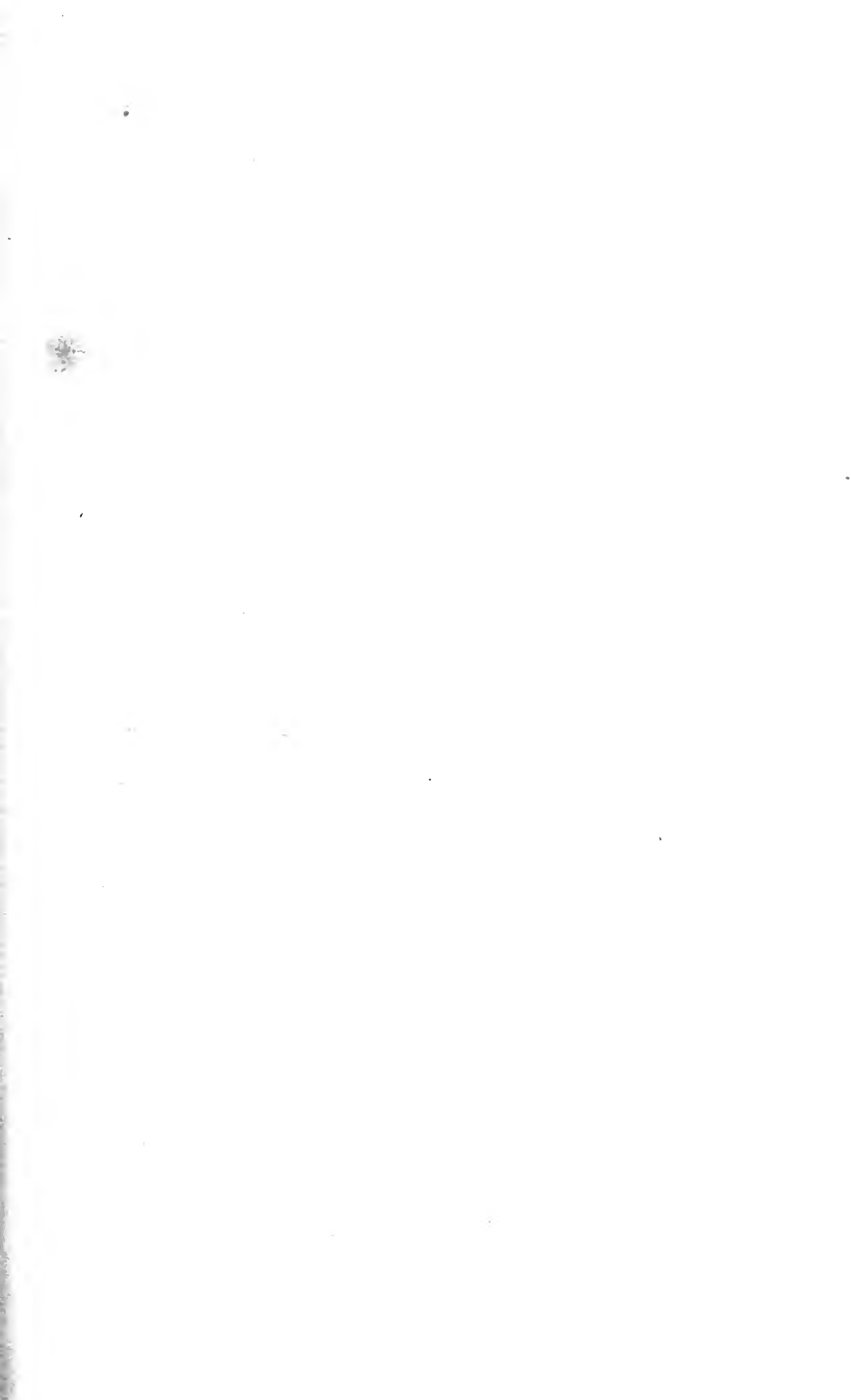
(4) *Ibid.*, p. 337.

(5) Bombard, from Βόμβος, an expressive word denoting a booming noise; properly, the humming of bees.—"A bombo et ardeo, quod cum ardore editur sonus ille." (Erasm.; *vide* Minsheu.)

No. 15.

Wrought-iron Bombard, from Bodiam Castle; now in the Rotunda, Woolwich. Length of cylinder muzzle to touch-hole, 22 in.; total length, 44 in.; diameter, 15·4; weight, 6 cwt.





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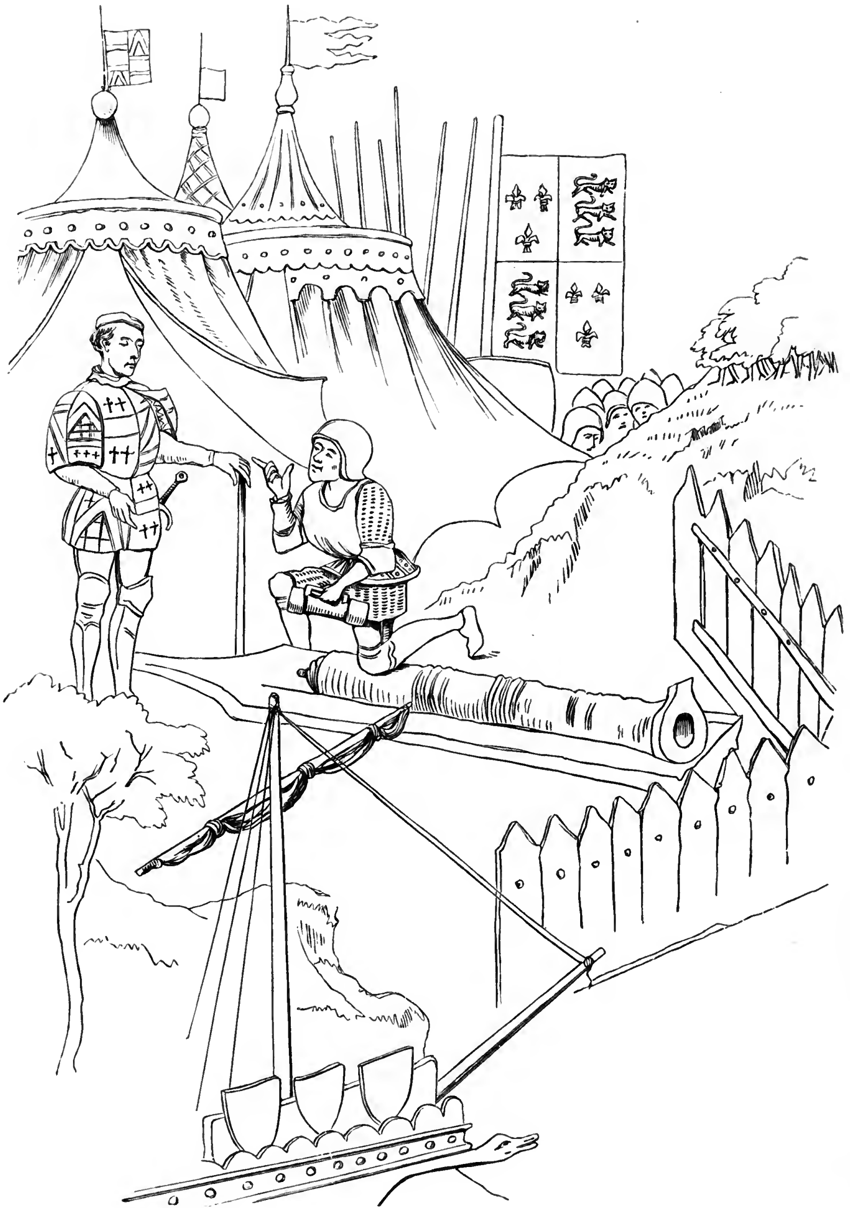


From MS. Cott. Lib., *Julius*, E. 4. (Brit. Mus.) *Cir.* 1410. Shewing the Chamber being placed in the breech of a Cannon.

The guns of this period were composed of two pieces detached, a breech or chamber and a chase. The charge was placed in the former, which was then grooved on to the latter, which served to give direction to the shot. There were more chambers than chases, so that as soon as one had been discharged, another was ready to be affixed. The hulk *Christopher of the Tower* had three iron cannon with five chambers. The barge *Mary* had an iron cannon with two chambers, and another of brass with one chamber. ([1]) By degrees these chambers came to be used as independent pieces. Such are the convenient little chamber-guns, which are now fired on grand occasions in the Park and elsewhere, and give the same grandeur of sound as heavy ordnance.

Plate XVI.—Showing the chamber being placed in breech of cannon. "How Earl Richard Beauchamp brought up vessels by water to Reone (Rouen), and by his policy was it besieged by land and by water." (MS. Cott. Lib., *Julius*, E, iv., *cir.* 1410.)

As guns became gradually larger, and had to sustain the resistance of larger charges, it became necessary to re-inforce them; they were then formed of longitudinal bars of wrought-iron, arranged like the staves of a cask, and hooped over with wrought-iron rings shrunk on hot upon the bars. A gun of about the fifteenth century may be seen in the Rotunda, Woolwich: calibre 4·25 inches; original length about 7 feet 6 inches; weight, 8 cwt. A

([1]) Nicolas, *Hist. of the Royal Navy*, ii. 186.

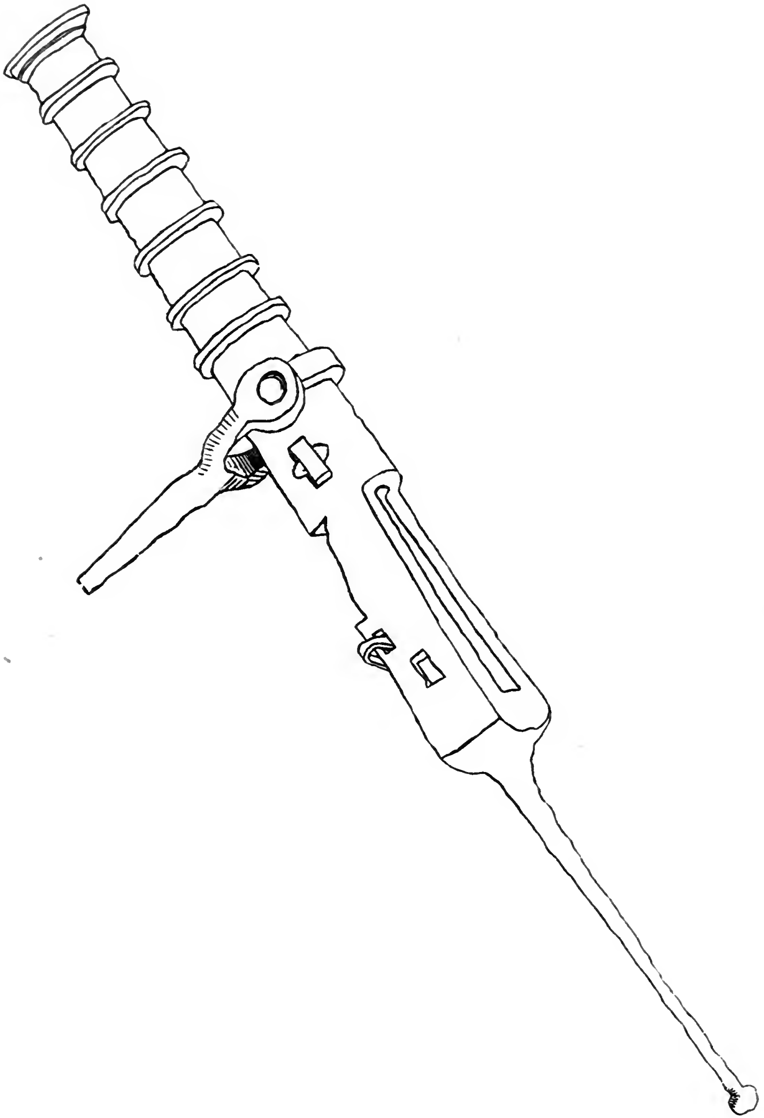
portion of the breech end having been broken off, advantage was taken of the circumstance to examine its construction. Fourteen longitudinal bars were found arranged in a circle, two deep, and imperfectly welded together; leaving interstices into which melted lead had been poured; a bronze cylinder had been inserted at the breech end to serve as a powder chamber. The iron is of excellent quality, giving a tensile strength of 55,258 lbs. to the square inch, being very little less than that of the best wrought-iron employed in the manufacture of the Armstrong guns.(1)

The carriages of these earliest efforts at ordnance were of the simplest description. The guns, "*cum telar'*," which we have heard of before, had wooden stocks or beds, generally scooped out of the solid block. In the Dover Castle inventory, in 1361, there appears this item: "xxiiij. arc pur arblastes de corn saung teilers." The same twenty-four bows are again named in 1364: "xxiiij. arcus pro balist' de corn' sine tellur'." (*Archæol. Jour.*, vol. xi., p. 385.) From these entries it is clear that "*teleria*" denote stocks. (See Plate XVII.—Small breech-loading pivot gun of hooped iron. Tower $\frac{19}{7}$.)

Among the King's expenses between 1372 and 1374, were payments for "helvyng"(2) eight guns. Some were conveyed on carriages, or more accurately, on trucks or barrows on two wheels; others, again, were fired from the ground, merely elevated on a block

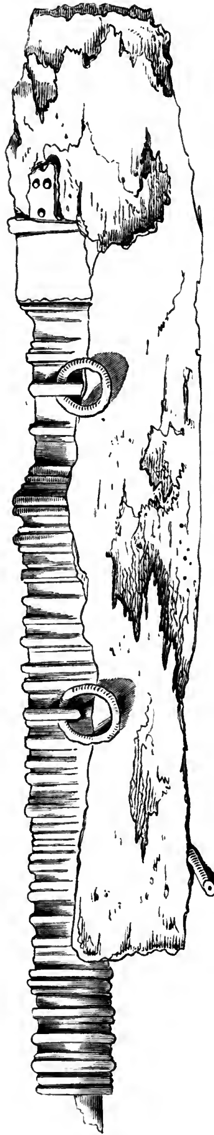
(1) *Official Catalogue*, p. 2.
(2) *Hist. Roy. Navy*, ii. 186.—(From the old word, *helve*, to handle.)

No. 17.



Small Breech-loading Pivot Gun, of hooped iron. (Tower, $\frac{19}{7}$.)

No. 18.



Wrought-iron Breech-loading Ship Gun, with its chamber; recovered from the wreck of the *Mary Rose*, sunk at Spithead, in 1545. (Tower, $\frac{1^{o}}{1}$.)

of wood. The heavier guns (there being no cascables or trunnions at first) were embedded in solid blocks of oak, grooved for their reception, with a loose block at the breech for the recoil. They had loose rings on the chase for lifting them. Such were the ship-guns recovered from the wreck of the *Mary Rose*, sunk off Spithead in 1545. Specimens of these interesting relics may be seen at the Tower, the Rotunda, and at the United Service Institution. (See Plate XVIII., *Mary Rose* guns in Tower, $\frac{19}{1}$.) When a siege was about to be undertaken, the commanders often sent to the nearest town to borrow guns, so that the encumbrance of heavy ordnance in the train of the marching army was thereby avoided.[1] In 1456, the Scots adopted a convenient mode of transport for their artillery, as is expressed in an Act of Parliament of that year: "It is thocht spedfull, that the king mak request to certane of the gret baronys of the land, that are of ony myght, to mak carts of weir, and in ilk cart twa gunnys, and ilkane to have two chawmers, with the remanent of the graith,[2] that efferes thereto, and an cunnand man to schut thame." By another Act of 1471, the prelates and barons are commanded to provide such carts of war against "his ald enemyis of Ingland."

Towards the end of the fourteenth century, a lighter kind of ordnance made its appearance.[3]

[1] Monstrelet, lib. i., ch. cli., p. 370.—Froissart, i. 214.

[2] *i.e.*, Gear.—Jamieson's *Dict.*

[3] At Perugia, in 1364, 500 little cannon of a palm's length, to be fired from the hand, were ordered to be made. (Pellini, *Hist. di Peruggia*, p. 1,007.—See *Études*, i. 44.)

They differed not in appearance, but in size only, from other cannon, and were lighted by a port-fire, applied to a touchhole, the same as others. The English army that besieged St. Malo in 1378 are said to have been provided with 400 cannons.(1) The greatest part of these must have been of this description; and at the combat at Comines, in 1382, some of the troops were armed with "*bombardes portatives.*"(2) Possibly they were similar to the specimens figured on Plate XIX., described as "Early Hand-guns," with touchhole on the top. These, however, appear to have been used on walls. The recoil piece forward (if it were for that purpose) is remarkable, for no instance occurs of allowance for recoil in the early ordnance. And now the use of fire-arms came into full play. The invention was of too important a character to allow of its remaining long stationary, when war was considered the noblest occupation; so no branches of the mechanical arts were likely to make such rapid progress as that of the manufacture of ordnance. It was the transition period of artillery; guns were made experimentally of all shapes and sizes; even kings tried their hands at improvements.(3) Henceforward we find the great guns of the Middle Ages; instead of tubes carrying leaden balls, thirty-two to the pound, or bolts or arrows of

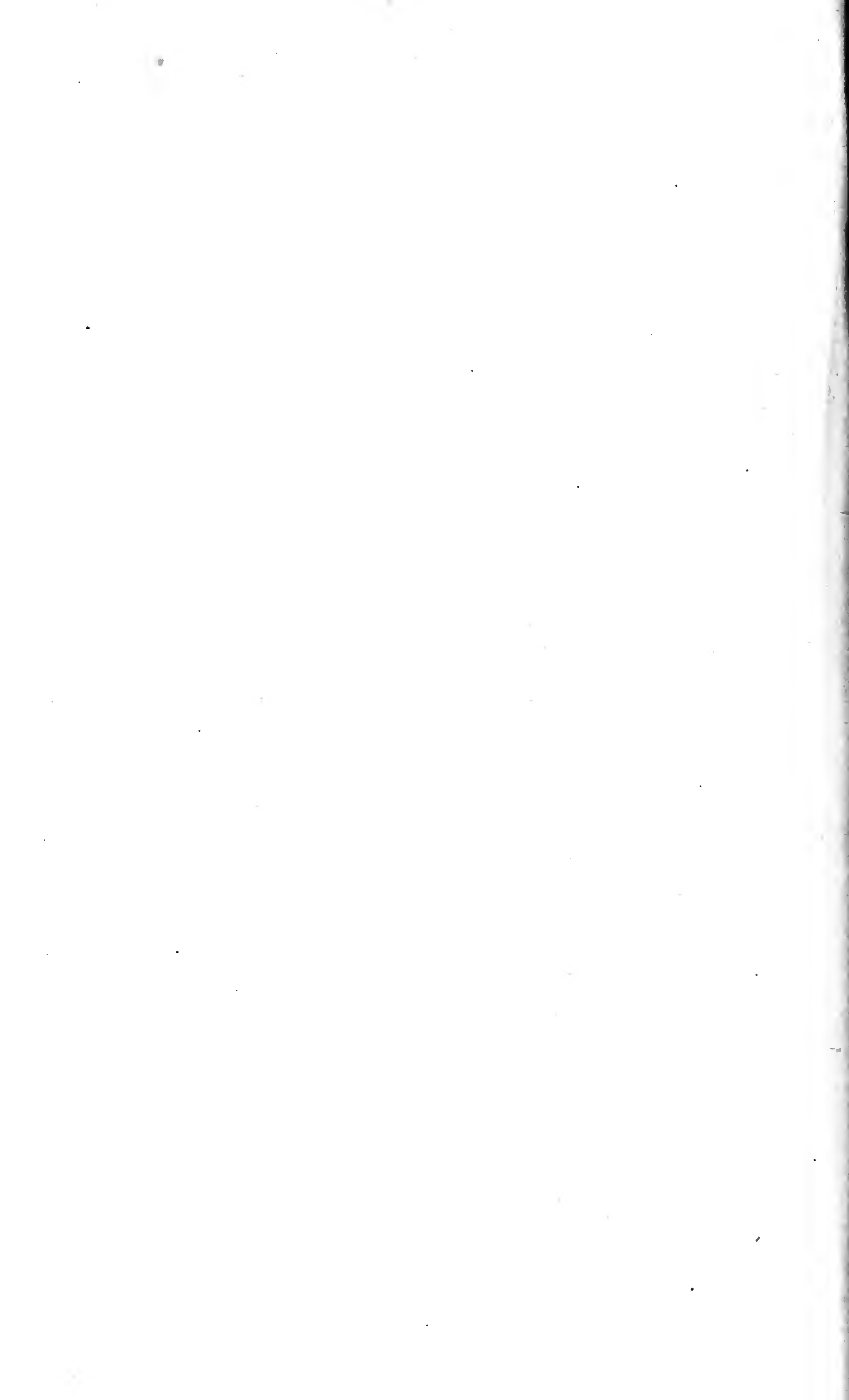
(1) Froissart, ii. 31.

(2) *Ibid.*, p. 235.

(3) "To Simon Flete, Esquire, Keeper of the Private Wardrobe within the Tower of London. In money paid to his own hands for newly making and constructing a certain great cannon, *newly invented by the Lord the King himself*, £25 6s. 8d." (*Pell Records.* Issue Roll, 9 Hen. IV., 1407.)

No. 19.

Early Hand Gonnes, with touch-hole on the top. Used for walls. The recoil piece forward. About A.D. 1480. (Parham Collection.)



even ounces, we hear of mighty bombards throwing stones of several hundred pounds weight. A metal more tenacious of resistance was attempted, and cannon were cast in bronze, but the art was yet imperfect, and they are often reported as having burst. Names were bestowed on pieces of ordnance. Henry V. took with him to the siege of Harfleur guns which were named "London," "Messagere," and "The Kyng's Doughter."(1) "London" threw stone-shot of 15 lbs.; "Messagere" was a brass cannon, weighing 4,480 lbs., and threw shot of 30 lbs., and which subsequently burst at the siege of Aberystwith. "Kyng's Doughter" threw shot of 45 lbs., and burst at the siege of Harlech.(2) James II. of Scotland was killed by the bursting of one of his cannon at the siege of Roxburgh Castle in 1459.(3)

Heavy Foreign Ordnance.

But we must look abroad for great ordnance; those of England were as yet comparatively of small dimensions. Froissart tells us that at the siege of

(1) Harl. MS. (565), attributed to John Lydgate, a monk of Bury, who was nearly contemporary with the period referred to. (Printed by Percy Soc., ii.)

(2) *Proceedings of Privy Council*, ii. 339.—The Petition states that these guns were destroyed in the early part of the reign of Henry IV. These names must have been given to others, or Lydgate's allusion to them is an anachronism.

(3) "But quhill this prince," says Robert Lindsay, "more curious nor became the majestie of ane king, did stand near hard by, quhair the artylliarie was discharged, his thigh-bone was dung in tuo be ane piece of ane misformed gune, that brak in the schutting: be the quhilk he was stricken to the ground, and died hastilie theirafter." (*Chron. of Scotland*, i. 159.)—Midway between Floors and Roxburgh Castles stands the old thorn which marks the spot where the King of Scotland fell.

Audenarde by Philippe d'Artevelle, a marvellously large bombard was constructed, the mouth of which was fifty-three inches[1] (*cinquante trois pouces de bec*), and it threw quarrels marvellously large and heavy. The noise of its discharge was so loud, that one might suppose all the devils of hell were about; it could be heard full five leagues off, and at night ten.[2] It is interesting to note that, in all probability, the same great gun, which astonished men's minds upwards of four hundred years ago, may still be seen at Ghent; and, without going the length of the chronicler, we can quite understand what a giant it must have been considered—greater than "Big Will"—among his *confrères*. Its history has been described in various works. Voisin gives the following dimensions :—

Bombard at Ghent.

"It is 18 feet in length, by 10 feet 6 inches in circumference. The mouth is 2¾ feet in diameter. It is forged from bars of iron, and weighs 33,606 lbs., and threw a stone ball of 600 lbs. weight. Its construction appears to date from the early years of the invention of artillery; in all probability it was forged while Philippe Van Artevelde, Riswaert of Flanders, was besieging Oudenarde in 1382.

"It is certain that the people of Ghent, at war with their Duke Philippe, used it in 1411, and at the attack of Oudenarde in 1452; and that, forced to abandon the siege, their great piece of artillery, which

(1) Its actual circumference at the muzzle is 9 ft. 3 in.; the bore 2 ft. 2 in. in diameter.

(2) *Chron.*, ii. 214.

they were not able to drag along with them, fell into the hands of the burghers of that city. It is probable that they of Oudenarde, who took part with the Duke of Burgundy, caused the arms of that prince to be engraved upon it.

"During the great revolt against the Spaniards, this famous piece, which Oudenarde had preserved for nearly a century, was re-captured by the Gantois. It was placed, in the same year, 1578, on wooden trestles; these were replaced, about 1783, by the three freestone pedestals on which it now stands.

"It served for throwing stone balls, or barrels containing a kind of grape-shot composed of pieces of stone, iron, or glass, &c. The chamber is made separate from the chase, but is re-united to it in the same manner as in some of the bronze pieces which defend the entrance to the Dardanelles. The celebrated cannon in the Arsenal at St. Petersburg is 21 feet long, but it only weighs 17,435 lbs., and its calibre is only 68 lbs.

"The great cannon of Ghent still bears the *sobriquet* of 'Dulle Griette' (the raging Meg, or mad Margaret). Some of the French chroniclers say the piece was commonly called 'Margot la Folle.'" (1)

Christine de Pisan speaks of four cannon used at the battle of Tongres in 1408, viz.: "Garitte," which threw a ball weighing from 400 to 500 lbs.; "Rose," a 300-pounder; "Seneca," and "Marie."(2)

(1) *Guide des Voyageurs dans la Ville de Gand.*
(2) *Livre des Faits d'Armes et de Chevalerie.*

It has already been stated that the great gun of Mahomet II., at the siege of Constantinople, is reputed to have thrown a ball of 600 lbs.

English Bombards at St. Michael's Mount.

The English were, however, in possession of some big guns at the commencement of the fifteenth century; but these, probably, like "Dulle Griette," were fabricated by those sturdy patriots—the accomplished Flemish artisans.(1) Two bombards, left behind by the English when they abandoned the siege of Mont St. Michel in Normandy, in 1423-4, may still be seen *in situ*, memorials of the event—and almost sole memorials, for very little is known of the siege. It is remarkable that Monstrelet, who relates the events of that year at some length, is silent as to the reverses of the English at this siege, although he relates the attempt of the French to take Avranches from the English by a *coup de main*, in which they were unsuccessful.(2) Grafton, speaking of the siege of Maune (Le Mans) in 1424-5, says:—"The Englishemen approched as nighe to the walles as they might without their losse and detriment, and shot agaynst their walles great stones out of great goonnes (*which kind of enginnes before that tyme was very little seene or hearde of in Fraunce*). . . . The citizens of Mauns much marveiling at these newe engynes," &c.(3)

Now this chronicler, writing one hundred years

(1) In 1411-12 the great guns of the Duke of Burgundy were called "griette," "grielle," and "senelle," and were therefore probably supplied from the same quarter. (See *Études*, iii. 128.)

(2) Liv. ii., ch. xiii.

(3) *Chron.* (Hen. VI., the thirde year).

after the event, was certainly misinformed. Guns were no "novelties" to the French in 1424; nor was the size of these guns greater than some in the French service. In 1421 the French purchased an iron bombard at Namur weighing 6,200 lbs.; and in the same year another was brought from Hainault to Arras weighing about 10,000 lbs., and threw a stone shot of 400 lbs.

These guns possess for the English military archæologist a very peculiar interest, as we have no pieces of that period whose date is so well established. They were examined by Professor Pole in 1863,(1) who gives the following report of them:—

"*Memoranda on the two large Wrought-iron Guns left by the English at Mont St. Michel, in Normandy, in* 1424.

"The guns now stand in front of the second gate of the fortress, and are in bad condition, being much corroded by oxidation, the rust covering them in large flaky masses. Each of the guns had a granite ball in the barrel, some distance down. To examine the interior, it was necessary to draw these, as well as to clear the barrels of a mass of conglomerated rubbish that filled them behind the balls.

"The two guns are of different sizes. The larger gun is on the south side of the gate. It is 19 inches in calibre, and 12 feet in total length, of which the

(1) At the suggestion of Brigadier-General Lefroy, R.A., by whom an interesting paper on the subject was contributed to the *Proceedings of the Royal Artillery Institution*, vol. iv. (See also *Archæological Journal*, No. 86.)

chamber composes more than one-fourth. The granite balls, of which several lie about, are about 18 inches in diameter. The general construction is evidently similar to that of the smaller gun, but the bars and hoops are not so distinctly visible. The internal longitudinal bars are about 3 inches wide. The breech chamber-piece consists externally of ten longitudinal bars.

"The smaller gun is on the north or left-hand side of the doorway. It is 15 inches in calibre, and 11 feet 9 inches in total length. The granite ball is rough in shape, about ¾ or an inch less diameter than the calibre. The construction of the barrel is clearly visible. It is formed of wrought-iron, being, in fact, a true 'built-up' gun. The inside is made up of longitudinal bars, each about 2¾ inches wide by 1 inch thick; and round the outside are seen the lines of hoops, each about 2¾ inches wide, placed quite close to each other. The exterior of the breech or powder-chamber consists, not of hoops, but of longitudinal bars, their flat surfaces giving to it the section of a polygon. The gun has an eye on each side for a ring.

"The estimated present weight of the guns is—

Large gun, about	. . . . .	5⅓ tons.
Small ,,	. . . .	3¼ ,,

"The granite ball for the large gun would probably weigh about 300 lbs." [1]

[1] One of these shot has been presented to the Museum of Artillery at Woolwich.—These guns are noticed in *Études*, iii., p. 119, and figured in Plate 5, "Deux bombardes prises sur les Anglais au siége de Saint-Michel, en 1423." This is, however, the date of the commencement of the siege, not of the end of it.

With the increasing development of gunnery, the value of artillerymen naturally rose in estimation. The few gunners in Edward III.'s army at the siege of Calais are stated to have received 6d. each per diem. But we find, in 1428, permission granted to take out of the number of the men-at-arms four Master Cannoniers, to be mustered as men-at-arms, and to receive "twenty deniers esterlins" per diem, the ordinary daily pay of a man-at-arms being twelve deniers. [1] The paucity of gunners employed in proportion to the numbers of the guns is also remarkable. Edward III., at Calais, is stated to have had "Ingyners lvii.," but only "gunners vi." The small guns and the tardy discharges of that date required but little labour for their service; and, in all delineations of guns and gunners in the MSS. of the fifteenth century, a single artilleryman per gun is generally represented: no instance of ordnance figured appears to exist previous to that date. Sometimes a single "cannonier" had the charge of more than one gun. "Payments to Sir Thomas Beauchamp, Captain of Carisbrook Castle, for five cannoniers, each having his cannon, and one cannonier with theree cannons." (*Issue Roll*, 8 Rich. II.)

Mons Meg.

One of the most interesting specimens of mediæval artillery in Europe is the ancient bombard familiarly known as "Mons Meg," which, after many changes of place and fortune, now rests *cum dignitate* on the King's Bastion, Edinburgh Castle. It is con-

[1] Rymer, x. 392.

structed in the usual fashion of the built-up guns of the fifteenth century—namely, of longitudinal stave bars, in one ply only; and of super-imposed rings, driven and shrunk-on upon the taper, in one ply also.(1) There is no core or internal lining, as in some early bar-and-hoop guns, but the staves form the concave cylinder. It weighs six tons and a half. The following admeasurement was furnished to Mr. Mallet by Captain Grant, R.E.:—

	Feet.	Inches.
Total length	13	6
External diameter of muzzle	0	24$\frac{3}{4}$
,, ,, breech	0	27
Greatest external diameter	2	4$\frac{3}{4}$
Length of chase interior	8	9$\frac{1}{2}$
Calibre at muzzle	0	20
,, breech	0	20$\frac{3}{4}$
Longitudinal bars, 25, each $\frac{3}{4}$ in. thick × 2$\frac{1}{2}$ in. nearly.		
External rings, average width	0	3$\frac{1}{4}$
Length of chamber, interior	3	9
Diameter at mouth	0	9$\frac{3}{4}$
Thickness of well of chamber, minimum	0	6

The curious *sobriquet* attached to this interesting relic has naturally aroused inquiry. A legend preserved in Wilson's *Memorials of Edinburgh in the Olden Time*,(2) states that when James II. arrived with an army to besiege the Castle of Threave or Threive—situated on an islet of the Dee, and the last stronghold of the Douglases that held out for James, Duke of Touraine—the M'Lellans presented him with the piece of ordnance, now called Mons Meg. As a recompense for this loyalty, the King, before leaving

(1) Mallet's *Construction of Artillery*, p. 182.
(2) Vol. i., p. 130.

Galloway, granted to "M'Kim," a blacksmith, the fabricator of the gun, the lands of Mollance, in the neighbourhood of Threave Castle. Hence the smith, *more Scotico*, was called Mollance, and his wife's name being Meg, the cannon, in honour of her, received the appellation of "Mollance Meg," soon shortened into Mons Meg.

Mr. Mallet, mistaking the term, says that this "is a sample of that loose sort of vapid fable with a circumstance with which *antiquaries* are apt to be satisfied." He appears entitled to the designation under his own definition, for he states immediately after that "the 'Mons' was probably nothing more than an abbreviation of monster;" and that "Pennant (*Northern Tour*) says, that the sister gun to Mons Meg proved fatal to James II. of Scotland, by bursting near his person." That is not precisely what Pennant says: his words are, "The great cannon called Mounts-meg, . . . is said to have been brought here (Edinburgh Castle) from Roxburgh, and *one of the same kind* proved fatal to James II."(1)

A "Statistical account" of the parish of Kelton (*History of Galloway*) states, that two of Meg's shot have been picked up at Threive; those which are piled on each side of the gun in Edinburgh Castle, are stated to be of *Galloway Granite* (quite unlike any other), but exactly similar to those found at Threive;(2) that the house of Mollance is still standing, and is situated between the Urr and Dee.

(1) iii. 239.

(2) Grant's *Memorials of the Castle of Edinburgh*, p. 276.

Andrew Symson, who wrote a description of Galloway in 1664, says that "in the Isle of Threive, the great gun in the Castle of Edinburgh, called Mount Meg, was wrought and made."

Sir Walter Scott writing to Mr. Train, a distinguished local antiquary, who had communicated to him the story with such corroborative facts as he could collect, expresses himself: "You have traced her propinquity so clearly, as henceforth to set all conjecture aside."(1)

Notwithstanding all this, the story certainly sounds improbable. The transition from Mollance to Monce, and ultimately Mons, is not so difficult; it has, however, no voucher whatever in contemporary records. That the lady of Mollance, brawny McKim's wife, should be called in to stand godmother to the big gun, is very difficult of belief, considering that in all the ancient records in which it is mentioned, the name Meg never appears at all; the first writer who applies to it the name of Meg, is Drummond of Hawthornden.

It would be far easier to suppose, according to general belief, that it derived its appellation from the town of Mons, Flanders being then, as already stated, the great emporium of artillery; and this probability seems to gather strength from the circumstance of the great gun of Ghent resembling it so closely in model and construction. Hall tells us besides, how James II., in 1460, "besieged the Castle of Roxburgh

(1) *Vide Archæol. Jour.*, No. 37.

with his new bombarde, lately cast in Flaunders, called the lion."[1] Scotland was not, however, destitute of native gun-founders. Robert Borthwick was eminent for his skill both in founding and using artillery. He was Master of Artillery to James IV., and cast, among other pieces, the beautiful train of guns, called the Seven Sisters, so much admired by the nation whose prize they became on the field of Flodden. His guns bore this rude inscription:— "Machina sum Scoto Borthwick fabricata Roberto."[2]

> "And there were Borthwick's sisters seven,
> And culverins which France had given.
> Ill-omen'd gifts! the guns remain
> The conqueror's spoil on Flodden's plain."
>
> *Marmion*, cant. iv.

The first appearance of Mons in the national records, is when James IV. conveyed her from the Castle of Edinburgh to the siege of Dumbarton. In the accounts of the Lord High Treasurer of Scotland, under date 10th of July, 1489, there appears: "Item, given to the gunners to drink, silver when they cartit Monss, by the King's command, xviij shillings."[3]

(1) *Chron.*, fol. 97.

(2) Holinshed, v. 470.—Also Scott's *Provincial Antiquities of Scotland.*—In the Museum of the Royal Society of Antiquaries at Edinburgh is preserved a curious specimen of ordnance from Wemyss Castle, Fife. Two wrought-iron barrels, about 30 inches long and 2·5 inches in calibre, are strengthened with rings, and the intervals between them strengthened with small cord; the whole has been bound with leather, and is further fortified with thin copper at the breech and muzzle. There is another gun of similar construction, of four barrels, somewhat smaller. There is also a small brass six-pounder, 2½ feet long, re-captured at Bhurtpore in 1828, with the inscription, "Jacobus Monteith me fecit, Edinburgh, Anno Domini, 1642."

(3) Tytler, *Hist. of Scotland,* vol. iii., note U. (3rd edit.)

This cannon bears a conspicuous place in all the public accounts of the time, where are to be found charges for greasing "her mouth," ribbons to deck her carriage, and pipes to play in front when brought from "her lair" in the castle to accompany the Scottish army on any distant expedition. On one occasion she is "ourelaid with reed leid," and her "quheles and extries creishit with Orknay butter."(1)

In 1497, when James IV. invaded England to support the cause of Perkin Warbeck, he conveyed Mons among other artillery, for which numerous "pellockis of led and irne" were made. Afterwards there was paid to the workmen "to bring hame Monse and the other Artailzerie fra Dalkeith, xxij*s*." (*Treas. Accts.*)

In other entries, on the occasions of great festivities, this gun always bears the same name.

In 1558, on the rejoicings consequent on the marriage of Queen Mary with the Dauphin of France, Mons was brought "furth of her lair by certain pyonaris [pioneers] to be schote." It appears the salute was not only with powder but ball: "for the finding and carrying of hir bullet efter sche was schot, fra Wurdie Mure to the Castell of Edinburgh, x*s*. viii*d*."(2)

In the list of cannon in the Castle in 1575, we find "ane grit peice forgit of yron, callit Mons." (*Jewel Office Rec.*)

In 1633, when Charles I. visited Edinburgh,

(1) Wheels and axles greased.
(2) Wardie is fully two miles from the castle.

Mons was found unfit to join in the salute: "Item, for rining and wining of the tuitch hole of the iron peice that had beene poysened thir many yeares by gane, iij*s*."(1)

At the surrender of the Castle in 1650, she appears under a new style and title: "The great Iron Murderer called Muckle Meg, 4 cannon, 10 drakes (a name for a gun of small calibre in this reign) called Monkeys, 2 Petards."(2)

In 1660, "the Major-General fired the great cannon, called Mounce Meg." (*Mercurius Publicus*, No. 27.)

In 1680, Mons Meg was fired off in honour of a visit from the Duke of York, and unfortunately burst.(3) This disaster is noticed by Ferguson, the poet:—

> "Oh, willawins! Mons Meg for you,
> 'Twas firing cracked thy muckle mowe!"

From this period it lay dismounted till 1753-4,

(1) *Archæol. Jour.*, No. 37.

(2) Letter from Oliver Cromwell to the Speaker of the House of Commons, dated Edinburgh, 24th of December, 1650.—Coryat, in his *Crudities*, mentions "a great *murdering* piece," at Zurich, "that a very corpulent man might easily enter into." (ii. 198.)—Chambered pieces, for throwing stones, called perriers, pierriers or pattereras, and *murtherers*, were much used in small forts, and on ship-board, *temp.* Edw. VI. (*Vide* Grose, i. 184.)—Taylor, the water-poet, on his journey to Scotland, visited Edinburgh Castle, and noted the extraordinary piece of antique ordnance. "I crept into it" [Mons Meg], says he, "lying on my back, and I am sure there was room enough and to spare for a greater than myself."

(3) "A little after his arriveall, having visited the Castle of Edinburgh, and for a testimony of joy, the gun called Mons Meg, being charged by the advice of an English canoneer, in the shooting was riven." (*Historical Observes*, p. 1, by Sir J. Lauder, of Fountain-Hall. Bannatyne Club.)

when by an order from the Board of Ordnance, requiring all unserviceable guns to be transmitted to London, Meg was placed in the Tower. There she remained till 1829, when chiefly owing to the patriotic exertions of Sir Walter Scott, she was sent down to Scotland, by the command of George IV., and escorted from Leith to Edinburgh by the 73rd Regiment and three troops of Cavalry, with pipers playing before her as of old, and conveyed to her ancient "lair" in the Castle.

In explanation of the term "Meg," it may be stated that Long Meg was the ordinary epithet in the seventeenth century for any one who was unusually tall and thin. "*As long as Meg of Westminster.*—This is applyed to persons very tall, especially if they have hop-pole-height, wanting breadth proportionable thereto." (Fuller's *Worthies*, edit. 1662, p. 236.) There appears to have been a well-known, and, probably, noisy virago in Westminster, who bore this appellation. Her life was published in 1635, 4to, and reprinted in 1816. (See *Notes and Queries*, 2nd S. xii., p. 450.) Hence the expression became proverbial. A long grave-stone on the south Cloister in Westminster Abbey is called Long Meg. Grose, in his *Provincial Glossary*, inserts among the Local Proverbs: "As Long as Megg of Westminster," with the following note: "This is applied to very tall, slender persons. Some think it alluded to a long gun, called Megg, in troublesome times brought from the Tower to Westminster, where it long remained." This surely must have been another Meg than the

one under discussion. We read of another in Scotland, when James V., in 1527, went in person to reduce Tantallon Castle (about two miles east of North Berwick). He borrowed from the Castle of Dunbar, then belonging to the Duke of Albany, two great cannons, whose names, as Pitscottie informs us, were "thrawn mouth'd Meg and her Marrow." (Note to *Marmion*, canto v.) A visibly shattered piece of ordnance would scarcely have been paraded as an intimidation "in troublesome times." Meg may be considered an appropriate term for a long, narrow gun making a loud report. Burton, in his *Anatomy of Melancholy*, 1621, says: "*Musica est mentis medicina mæstæ*, a *roaring Meg* against melancholy, to rear and revive the languishing soul."

It is remarkable, as has already been mentioned, that the great gun of Ghent is named *Dulle Griette*, Mad Margery or Margaret; and it is stated that a big cannon of similar calibre as Mons, was presented by the Fishmongers' Company of London, in 1642, to the City of Londonderry. (Simpson's *Annals of Derry*, ch. vii., p. 41.) It is also to be observed that ordnance in former times was always spoken of in the feminine gender, but now in the masculine, as "Big Will." Short familiar *sobriquets* have always been applied as a designation to popular works, as "Great Tom" of Oxford, "Big Ben" of Westminster.

Cast Cannon.

At the commencement of the sixteenth century, the ancient method of constructing cannon was changed for that of casting, that is in England, for according to Daniel (*Mil. Fran.*, i. 450), the first

bronze cannon were cast in France in the reign of Louis XI., a contemporary of our Edward IV. The civil wars may have retarded the progress of art and science in this country, for the first mention of bronze or of cast-iron guns here is in Henry VIII.'s reign. Among the kings of England, none contributed more than this monarch to the improvement of fire-arms, and to the development of the science of artillery, to which he personally devoted attention. "Henry VIII.," says Mr. Froude, "was one of the first men to foresee and value the power of artillery. Sebastiani mentions experiments on the range of guns which were made by him in Southampton Water; and it is likely that the cannon used in the siege of Maynooth were the large-sized bronze guns which were first cast in England in the year of its capture (*i.e.*, 1535). When the history of artillery is written, Henry VIII.'s labours in this department must not be forgotten." (*History of England*, ii. 299.)

It may be observed that Henry was in possession of bronze guns before this date, but probably ordered abroad and not cast here; for instance, a brass saker now in the Rotunda, Woolwich, bears the name of the maker, "Franciscus Arcanus" (an Italian), and the inscription "Pour defendre." On the first reinforce, "Henricus VIII., Angliæ et Franciæ Rex, fidei defensor, dñs Hiberniæ, A.D. MCCCCCXXIX." Length of the gun, 6 ft. 11 in.; calibre, 3·65 in., or that of a 6-pr. nearly.

There is another brass saker in the same place, by the same founder, date 1535; the external shape

of this one is twelve-sided. Length, 7 ft. 11 in.; calibre, 3·92 in., or that of a 7-pr. (*Official Catalogue*, p. 5.)

The mixed metal commonly called brass is used sometimes to denote copper, sometimes a fabrication of iron, copper, and calamine. We speak of brass cannon to this day, but zinc or calamine do not enter into the composition for casting cannon.

The following is copied from a curious little work in the British Museum: "*The Gunner's Glasse*, by William Eldred, sixty years Master-gunner at Dover." Lond., 1646. The instruction is conveyed in the form of a dialogue:—

"*Gunner.* The common received opinion is, that Brass Ordnance is the best, because of the smoothness and cleanness of the metal, and commonly they are not so heavy, but then they are not so strong to endure the proportional weight of Corn-powder, which is used in these days; and therefore they cannot bear so much powder, and by that reason cannot do so much execution; for a due proportion of powder causeth the piece to carry further, and goeth more forcibly, than when the powder is diminished, for there is a due proportion to be observed in all pieces; now again, your Brass Ordnance being hot with often shooting, as at Batteries and the like, when they be hot become very weak, and will not endure their due proportion, but will be in danger of breaking; and therefore, in my opinion, Iron Ordnance is better and more serviceable than Brass.

"*Scholar.* I have heard it reported, that Brass

Ordnance will not fly in pieces when they break, but only split?

"*Gun.* I have heard many say so, but I have seen it otherwise, for being at Rye, in 1612, among other Ordnance, a Brass Saker being fired, did break, and some pieces of great weight did fly a great way, whereof one piece of above a cwt. struck the Mr. gunner in two parts stark dead; that was a Brass Saker of 1,600 weight. Also in 1625, at the time when our gracious King Charles came to Dover Castle, a Brass Saker of 1,700, broke in 20 pieces, of which some flew a great way. These Brass Sakers weighed between 1,600 and 1,700, and your Iron Ordnance of the same height of bore do now in these times of founding weigh about 2,500.

"I have found by experience that Brass, the hotter it is, the weaker it is; and Iron Ordnance, the heat doth not hurt it anything at all; also your Brass Ordnance is compounded of divers other metals, as Copper, Latten, and Tinne; and Iron but of one onely metal, and therefore the stronger, for unity is more forcible than plurality." (p. 10.)

According to Holinshed, the first iron cannons cast in England were manufactured at Buxted, in Sussex, by Ralph Hoge or Hogge, in 1543.(1)

(1) The name of Hogg, or Hoggé, seems to have been confounded with that of Huggett; and there is a place on the confines of Buxted and Mayfield, called Huggett's Furnace, where, according to tradition, the first iron ordnance was cast. The traditionary distich, that

"Master Huggett and his man John,
They did cast the first cannon,"

is firmly believed in the locality." (*Sussex Archæol. Colls.*, ii. 184.)

Stowe gives a somewhat different account, and it will be seen that we are indebted to the foreign artificers employed by Henry VIII. for mortars and shells:—

"King Henry, minding wars with France, made great preparation and provision, as well cf munitions and artillery, as also of Brass Ordinances, amongst which at that time, by one Peter Bawd, a French-man born, a gun-founder, or maker of great ordinance, and one other alien, called Peter Van Collen, a gunsmith, both the King's feedmen, who conferring together, devised and caused to be made certain mortar-pieces, being at the mouth from eleven inches unto nineteen inches wide; and the said Peter caused to be made certain hollow shot of cast-iron, to be stuffed with fire-worke, or wild-fire; whereof the bigger sort for the same had screws of iron to receive a match to carry fire kindled, that the fire-work might be set on fire, for to break in small pieces the same hollow shot, whereof the smallest piece hitting any man would kill or spoil him. After the King's return from Bullen, the said Peter Bawd by himself, in the first of Edward the Sixth, did also make certain ordinance of cast-iron, of divers sorts and forms, as Fawconet, Fawcons, Minions, Sakers, and other pieces. Unto this Bawd, John Johnson, his covenant servant, did likewise make and cast iron ordinance cleaner and to better perfection, to the great use of this land. His son, Thomas Johnson, is yet living, in the year 1595; he made forty-two pieces of great ordinance of iron for the Earl of

Cumberland, demy cannon weighing 6000·023 tuns the piece."(1)

Before the productions of these aliens, two English-born subjects had the merit of casting brass ordnance. A brass saker at Woolwich proves the fact, bearing the inscription, "Ihon and Robert Owyn, bretheryn, made thys sacar, weying iziz. (*sic.*) Anno Dni. 1538." The name of "John Owen" appears on a "canon royal" of the same reign; and "Tomas Owen" in that of Edward VI., anno 1550. The Owens are also mentioned by Stowe in his *Survey of London.* "About the latter reign of Henry VIII.," he writes, "three brethren that were gun-founders, surnamed Owens, got ground there (in Hounsditch), to build upon, and to inclose, for casting of brass ordnance. These occupied a good part of the street on the field side."

In January, 1574, there is a petition from Ralphe Hogge, "manufacturer of guns and shot for the Ordnance Office," to the Council, complaining of the infringement of the patent granted him by the Queen for the sole exportation of ordnance.(2) But in 1587, the Queen's favourite, Leicester, obtained a licence to export 320 tons of cast-iron ordnance, "to be made, bought, gotten, and procured in our countie of Sussex, or elsewhere within any our dominions."(3) In the 44th Elizabeth an Act prohibiting the exportation of ordnance was debated. One member

(1) *Chron.*, p. 584.
(2) State Papers, No. 15.
(3) *Egerton Papers* (Camd. Soc.), p. 122.

stated the Queen's profits for the transportation of iron guns amounted to £3,000 a-year. He specifies the classes of guns which were exported—faulcons, minnions, sakers, and demi-culverings. They were exported to Calais, Brest, Embden, Lubeck, and other places, which was an injury to their allies, but succours to the Spaniards and other enemies. Another member reminded the House that there were already laws against exportation of gun-metal—viz., 33rd Henry VIII., c. 7, and the 2nd Edward VI., c. 36. (See Clarendon, b. iii.)

Two brass guns of Bawd's making still remain in the Tower Collection. One of them is an elegant, externally octagonal, breech-loading piece, adorned with the royal arms, the fleur-de-lys, and the King's initial, "H," surmounted by a crown, with the date 1543, and the initial of the founder's name, "B," over the vent-field. The other is a good specimen of the triple-gun, which was unfortunately broken into several pieces, and otherwise mutilated, by the fire of 1841. It is externally rectangular, and breech-loading; calibre, 2⅜ inches. It is 6½ feet in length, and has, of course, three bores. It bears on the first re-inforce the same legend as that of the "Arcanus" gun just before described, with the addition of—

"PETRVS . BAVDE . GALLVS . OPERIS . ARTIFEX."

This piece seems to be one of those mentioned by Hentzner, in the account of his visit to the Tower in 1598: "Tormenta duo, ex quorum altero tres,

ex altero septem globi possunt explodi." (P. 193, edit. Nuremberg, 1629.) (1)

Holinshed mentions a class of guns called "curtall," used at this time. The name does not occur elsewhere. From its appellation we may conjecture that it was a short piece. "On the march to Terouenne, by the negligence of the carters, a great curtall (called the 'John Evangelist') was overthrown in a deep pond of water; also a bombard of iron (called the 'Red Gun') overthrown in a lane. The first was captured by the French, and carried into Boulogne; the other was recovered by the Lord Berners." (iii. 578-9.)

French attack Brighton.

The following passage is curious, as relating to the present "Queen of English Watering-places," and how six archers did good service: "Prior Ihon, a great capitayne of the Frenche navy, with his Galeys and Foystes charged with greate basylyskes and other greate artilery, came on the border of Sussex, and came a-land in the night at a poore village called Bright Helmston; and or the watche coulde him escrye, he sett fyer on the towne: then the watche fyred the bekyns, and people began to gather; whiche seynge, Prior Ihon sowned his trumpett to call his men aborde, and by that tyme it was day. Then vi. archers, whiche kept the watche, folowed Prior Ihon to the sea, and shott so faste that they bett the galymen from the shore, wounding many; and Prior Ihon was shott in the

(1) *Official Catalogue of Tower Armoury* (1859), by J. Hewitt, p. 130.

face with an arrow, and was likely to have dyed, and therefore he offered his image of wax before our Lady at Bolleyn, with the English arrow in the face, for a myracle." (Hall, p. 568, A.D. 1514.)

The mistake in the construction of guns of this period was that they were made too large and heavy (although the calibre was small), which rendered them excessively inconvenient and unmanageable for service—a proof that field artillery was still but little used. Experience taught that little was added to the force of the ball by a great length of cannon. Armies hesitated to encumber themselves with a *matériel*, which the almost general want of roads caused to be a decided obstruction to their movements.(1) In 1522, we find that "the Kinge's ordonauns could not pass over Staynes More towards Carlile;"(2) and in the following year, Henry VIII. abandoned the idea of a siege of Boulogne, because "His Highnes thinketh that the wetenes of the cuntre, upon the rivers side, shall not suffre his army to march with artillery, either grose enough for batery, or sufficient for the feld; . . . and the ground being over softe to carry so grose batery would require."(3)

From the reign of Henry VIII. the series of guns in the Museum of Artillery at Woolwich is very complete, and enables us to trace, not only the skill of the engineer, but also the artistic taste of the several periods; and it is a remarkable fact that our

(1) Jervis, *Our Engines of War*, p. 58.
(2) State Papers, i. 105.
(3) *Ibid.*, More to Wolsey (Sept., 1523), p. 137.

ancestors displayed the same attention to solidity, and the same carelessness of beauty, which characterises our gunsmiths at the present day. It is most evident in the guns of Henry VIII., as compared with some of the French and German of the same period. The former are as stout and bluff as himself, and totally unadorned, with the exception of a small rose and crown and motto.(1) The German of the same date are embossed with coats-of-arms and mouldings; whilst the French is of elaborate finish, with medallion figures and *fleurs-de-lis*.

These guns of Henry VIII. are also curious as exemplifying the system then in vogue of arming the men-of-war. From the days of the Conquest, there was not any fixed and constant Navy Royal in England; but the several ports and maritime towns of the kingdom fitted out, upon proper summons, their quota of ships of war for the public service, and meeting at an appointed rendezvous, put themselves under the command of the King or his admiral.

Royal Navy.

Henry VIII. was the first of our kings who began to build a Royal Navy; but the ships were built rather as floating batteries than sailing vessels, and, to arm them, every denomination of ordnance was placed in them. The guns before mentioned were

(1) This is generally the case, but there are exceptions, *e.g.*, "a brass *cannon royal*, recovered from the wreck of the *Mary Rose*, made by John Owen. On the chase are roses in relief: *fleurs de lis* hinge fittings for a cover remain on the vent-field. The dolphins represent two lions' heads; the loop or handle is formed by their mouths being closed only at the front teeth." (*Official Catalogue of Museum of Artillery*, p. 7.)

obtained from one of these vessels—the *Mary Rose*. In 1545, the French fleet, of about two hundred sail, arrived off the Isle of Wight, and, taking advantage of a calm, attacked the English with their galleys for the space of two hours. During the action, the *Mary Rose*, who was far too heavily armed, her ports being within sixteen inches of the water, was overset by a little sway, and sunk; Sir George Carew, her captain, with some 500 men, being lost in her. There she lay till the year 1836, when she was raised piecemeal by means of the diving-bell.

Mary Rose Guns.

Some of the guns found in her are large brass 32-pounders; others 18-pounders; and some are of the old bar-and-hoop fashion. These are preserved in the Tower, United Service Institution, and Woolwich collections. (See Catalogues.)

Elizabeth's Pocket Pistol.

To this period belongs the remarkable gun in Dover Castle, popularly known as "Queen Elizabeth's Pocket Pistol." It was cast at Utrecht, A.D. 1544, and presented by the Emperor Charles V. to Henry VIII. It bears the following inscription:—

"BREECK. SCVRET. AL MVER ENDE WAL
BIN IC GEHETEN
DOER BERCH EN DAL BOERT MEINEN BAL
VAN MI GESMETEN,"

which may be literally translated:—

"Break—Tear—every wall and rampart
Am I called.
Across mountain and valley pierces my ball
By me stricken."

This gun is 23 feet 1 inch, or 58 calibres long,

including the cascable, 24 feet 6 inches; calibre, 4·75 inches, or but little over that of the 12-pounder.

Next in historical succession is a brass sakeret of Edward VI., 6 feet long, weight 6 cwt. 8 lbs., which curiously exemplifies the uncertain orthography of the day. It is thus inscribed:—

> "Thomas Owen made Thys
> Pece For the Yel of
> Garnse vhan Serpete
> r Meutas vas Governo
> r and Captayn. Anno Dmi. 1550."(1)

A brass minion of Queen Mary has on the first reinforce simply a rose, with letters "M. R.," without a crown, which is remarkable; then the words "John and Thomas Mayo, brethren, made this pece, Anno Dni., 1554."

A brass culvering of Elizabeth's reign, has on the second reinforce a crown and rose, with "Elizabetha Regina." On the first reinforce, the inscription "Henri Pit made this pece, 1590, No. 4, 18-pr." Length of gun, 8 feet 6 inches; calibre, 5·57 inch.

In 1578 a return was made of the ordnance and stores in the Tower and on board the ships, which will be found in the *Egerton Papers*, p. 68.

It appears that there was within the Tower guns of different sorts	104
Brass ordnance on board ships	504
In the Tower, cross-bar and round shot of iron, and stone shot	54,500
Aboard the ships	23,000

(1) *i.e.*, "Thomas Owen made this piece for the Island of Guernsey, when Sir Peter Meutas was Governor and Captain."

In the Tower—

Cannon and serpentine powder.	55	lasts.
Saltpetre	10,000	weight.
Sulphur	20,000	„

In the Tower—Calivers, 7,000; dagges, 5,000; match, 60,000 weight; bows, 8,000; arrows, 16,000 sheff; morris pikes, 10,000; black bills, 3,500.

Artillerymen are called "cannoniers" in this reign, sometimes "gunners:" "Cannoniers provided with milk and vinegar to cool the pieces." (1) Much amusing and curious information relating to artillery practice, is contained in Stafford's *Pacata Hibernia*, (2) *e.g.*:—

"The next day, when wee looked that the cannon should begin to play, the Cannoniere found the Piece to be cloyed; all the art and skill which either the smith or himselfe could or did use, prevailed nothing. The President [Sir George Carew, afterwards Earl of Totness]—who is a man that knowes to mannage great artillery—commanded that the peece upon her carryage (as she was) should be abased at the tayle, and elevated at the musle, as high as it might bee: then hee willed the gunner to give her a full charge of powder, roule a shott after it, and to give fire at the mouth, whereby the touch-hole was presently cleared, to the great rejoicing of the armie, which of necessitie in attempting the Castle (without the favour of the cannon) must have endured great losse. This particular I thought good not to omitt,

(1) North to Burghley, 26th July, 1586. (State Paper.)

(2) Or, *A History of the Wars in Ireland during the reign of Queen Elizabeth.* First published in London, 1633.

because it may be an instruction to others, whensoever the like accident should happen." (Vol. i., p. 115.)

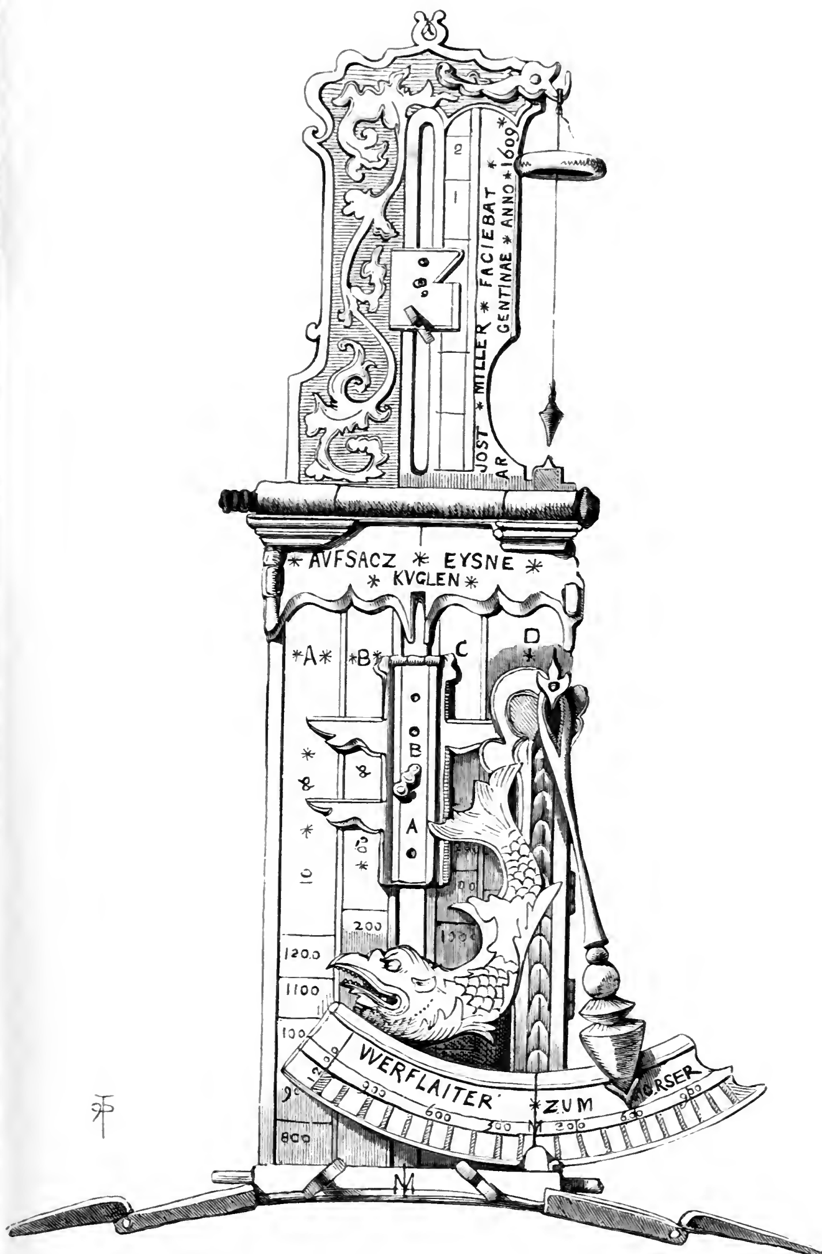
In vol. ii., p. 367, we find the Lord President, not satisfied with the manner in which the culverins were handled, took upon himselfe "the office of a master-gunner, making some shot, and that the artillery might play as well by night as day, himselfe did take and score out his ground-markes, and with his quadrant tooke the true levell, so as the want of day-light was no hindrance."(1) The Lord President was a knowing old soldier. One day he, the Earl of Thomond, and Sir Charles Wilmot, rode for recreation out of the Camp; they espied a gunner of the Castle

(1) Opportunity may be taken here to mention a cannon sight exhibited at the Society of Antiquaries, London, by Mr. Pritchett, F.S.A. It was made by Jost Miller, at Strasbourg, A.D. 1609. The sight is applicable to 10-prs., 20-prs., 30-prs., 40-prs., and the graduated scales slide in and out: the feet at the base of the sight fold in or out, according to the size of the breech of the cannon; the swinging quadrant at the side shows the elevation of the gun, and the folding upper leaf has an arrangement for a plumb-line, to show the verticality of the cannon. The whole of the upper sight moves to the right or the left, and is fixed by two set screws, the action and intention being the same as brought forward in modern rifles. The elevating sides are also adjusted by screws, moving up and down with facility, and the sight is taken through small holes for the purpose. The whole is of gilt work, in excellent preservation, and it was evidently intended for some director of artillery, as a verifying instrument, to see that the guns of various calibres were laid accordingly. (See *Proceedings of Soc. Antiq.*, vol. ii., No. 4, p. 198.)

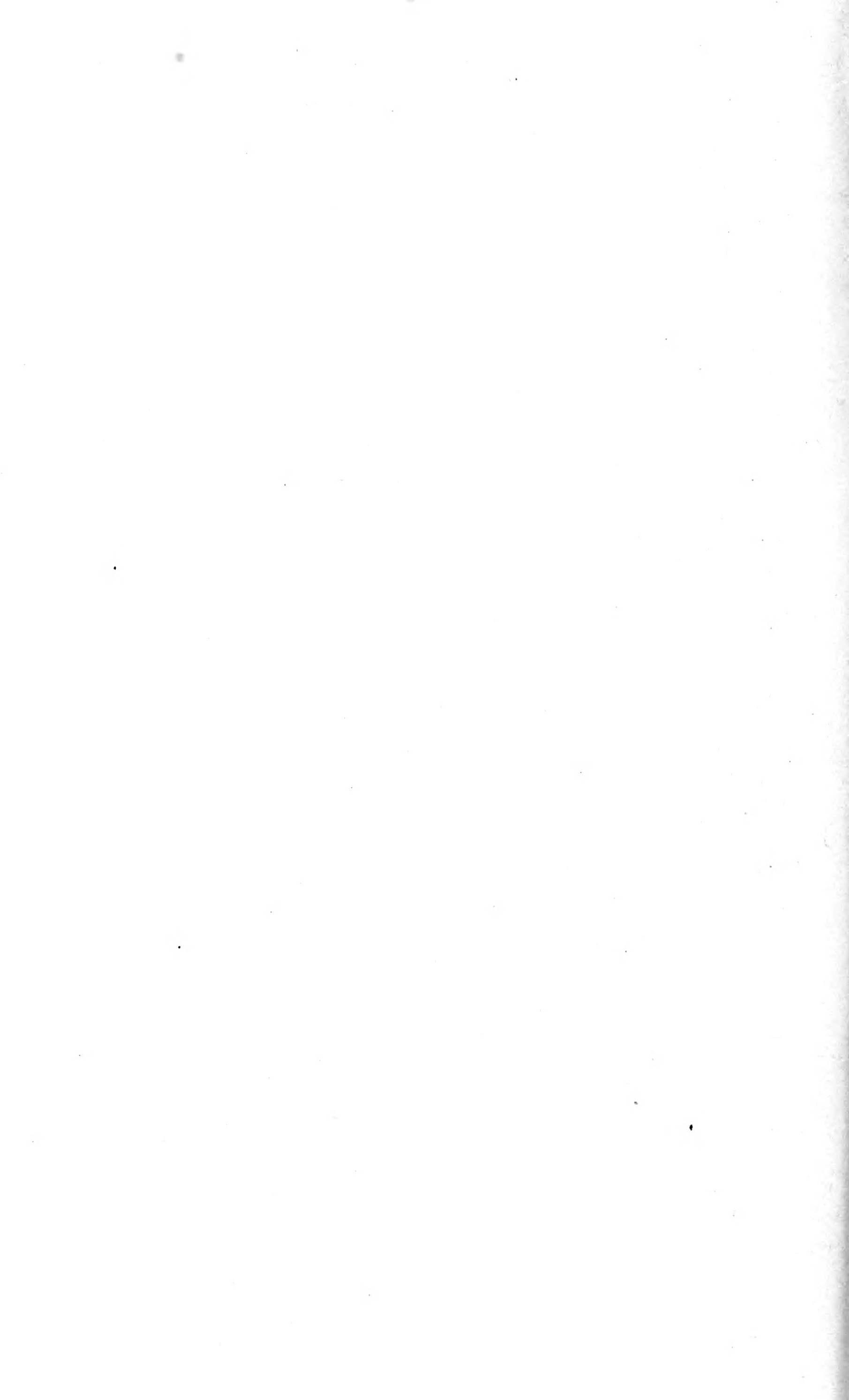
Underneath is the name of Wolfgang, and some letters obliterated, thus—

"WOLFFANG . . ARN . . ISTER . ARG . POSIDET."

The plumb-line at the top shows the verticality of the gun. The little quadrant at the side, the angle of elevation. A B C D shows the elevations from 10, 20, 30, 40-pounders up to 1,200 yards. It is figured on Plate XX.



Tangent Sight for Cannon, made in 1609 by an Englishman. The plumb-line at the top shows the verticality of the Cannon. The little quadrant at the side the angle of elevation. A, B, C, D shows the elevations for 10, 20, 30, 40 pounders up to 1,200 yards. The sights are aperture-sights, as lately used in rifles. (In the possession of Mr. R. T. Pritchett, F.S.A.)



of Dunboy, before which the English army lay, traversing a gun. "This fellow," said the President, "will make a shot at us;" the word was no sooner spoken, than fire was given. The President knowing that gunners always laid their guns before a moving mark, reined in his horse, and stood firm. His companions, however, started forward, and the shot grazed their horses' heels, beating some of the earth upon them. The President, glad to see them past danger, laughing, observed, that if they had been as good mechanical cannoniers, as they were commanders, they would have stood firm as he did." (*Ibid.*, ii. 566.)

A brass gun in the Tower bears the inscription, "Richard Phillips made this Pece A^o. D^ni. 1601. It fell somehow afterwards into the possession of the Chinese, who appear to have captured it from the natives of Cochin China, as appears by the Chinese inscription on its chase and base-ring, an interpretation of which is given in Mr. Hewitt's catalogue, p. 131. It was re-captured by the British forces at Chusan in 1842.

A brass demi-culvering of the time of Charles I., at Woolwich, bears on the chase a crown with an anchor and a rose, a trident and staff, with the inscription: "Carolus Edgari sceptrum stabilivit aquarum."(1) On the reinforce: "Mountjoye, Earl of Newporte, Mr Generall of the Ordnance," and then

(1) This device was adopted by the King after the dispute with the Dutch about coast fisheries. Edgar was the first Saxon king who commanded a large fleet and could keep his coasts clear of the Danes, hence sometimes called "The Founder of the British Navy."

"John Brown made this piece, *Ano* 1638." Length of gun, 9 in.; calibre, 4·4 in.; weight, 20 cwt. 23 lbs.

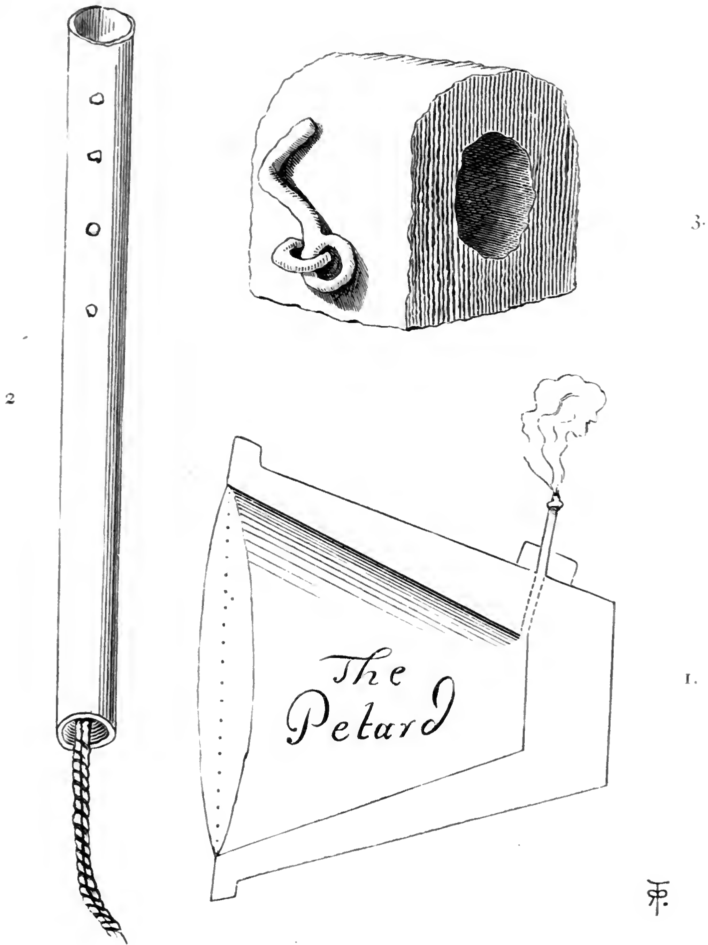
Charles II. was the first of our kings who introduced the foreign system of displaying the royal arms on a large field on the guns; this ornamentation continued till the end of the last century. A cannon royal, *temp.* Henry VIII., made by John Owen, recovered from the wreck of the *Mary Rose*, is an exception; it bears the royal arms surrounded with a garter, and the motto "Hony Soyte Qvy Mal y Pence."

Petards.

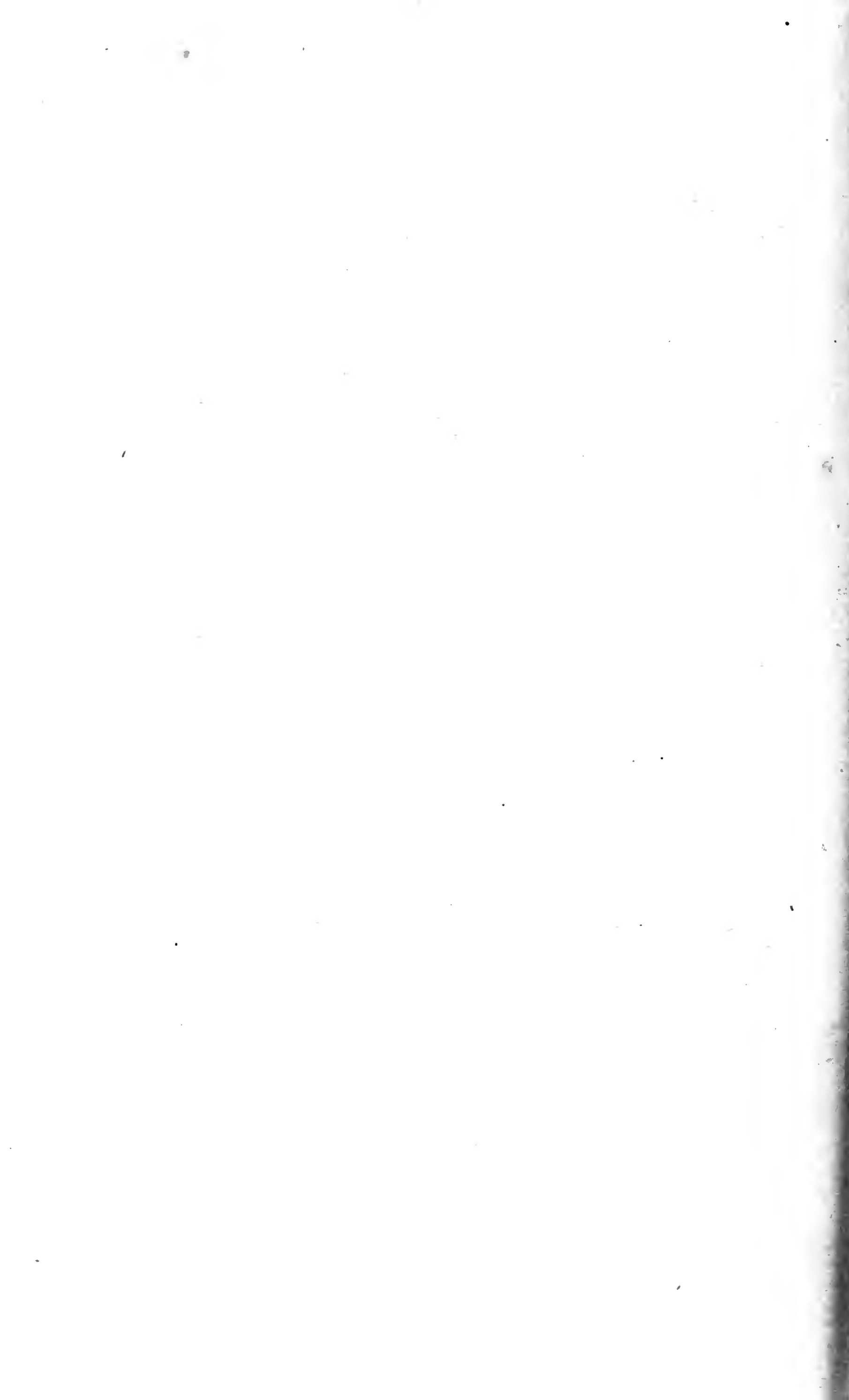
One can only smile at the absurdity of procuring mortars from a druggist's laboratory for artillery purposes, as recorded before. (See vol. i., p. 464.) Petards were often used for bursting open gates, blowing up draw-bridges, and so forth. In December, 1641, Sir William Waller attacked Arundel Castle, and blew the gate open with a petard. (Vicars, *God in the Mount*, p. 231.) It was a kind of iron mortar, generally of the form of a truncated cone, filled with gunpowder and yellow wax, or Greek pitch. (Grose, i. 390.) According to Daniel (*Mil. Fran.*), it was invented in France about 1579. A drawing of one is given in Ward's *Animadversions on Warre*, 1668, with the tube to carry the lighted match, which is copied on Plate XXI. Also a Petard from the Rotunda, Woolwich. (See also Daniel's *Mil. Fran.*, i., ch. viii.)

The artillery used by King Charles I.'s forces and the Parliament has been already alluded to, and shown to have been very ineffective. The science of constructing guns had been greatly simplified about

No. 21.



1. Petard. (From Ward's *Animadversion on Warre*, 1668.)
2. The Pipe to carry the lighted Match.
3. Petard. (From Rotunda, Woolwich.)



the middle of the seventeenth century by Gustavus Adolphus. He always aimed at rapid movements, and he introduced guns made of brass cylinders, bound round with rope and covered with leather, so as to obtain solidity with lightness. Tilly admitted the advantage obtained by these portable guns.(1) A gun of this description in the Rotunda, Woolwich, is stated to have belonged to the gallant King of Sweden. The dolphins are fashioned to the letter G.(2) Leather guns are mentioned as accompanying the Scotch army that entered England in 1640, under the command of Leslie, one of the most distinguished officers that had served under Gustavus Adolphus; and Gwynne, in his *Military Memoirs of the Great Civil War*,(3) says, "at Crobedery Bridge (Cropredy, 29th June, 1644), and thereabouts, we overtook Waller's army, which we engaged and beat, took Wemes (Wemyss), General of their artillery, prisoner, and withall took his *leather guns*, which proved very serviceable to the King." According to Pennant, the invention of leather guns was due to Robert Scot, a Scotch officer in the service of Gustavus Adolphus. His monument is in Lambeth Church; he is stated to have been a member of the family of the ancient

(1) "Authors well instructed on this subject inform us (Schefferi, *Memorab. Succ. Gentis*; Pietro Pomo, *Guerra di Germania*, l. i., p. 33) that they were composed of the most hardened leather, girt round with iron or brass hoops, and could be brought to discharge ten times successively." (Harte's *Gustavus Adolphus*, i. 148.)

(2) Two precisely similar guns in the Museum of Artillery, Paris, are attributed also to Gustavus Adolphus. (See *Off. Cat.*, Woolwich, p. 25.)

(3) Edited by Sir Walter Scott; p. 42.

Barons of Bawtrie, N.B. He brought two hundred men with him to the Swedish army. (*Hist. of London*, i. 25.)

The English guns of this period were certainly reduced in length and weight. A brass fawcon of Charles I., *anno* 1638, in the Rotunda, is only 3 ft. 8 in. long, and weighs 2 cwt. 81 lbs. A brass fawconet, assigned to the time of the Commonwealth, is 3 ft. 9 in. long. A brass fawcon, with the inscription, "Gerard Koster me fecit a°. 1661," is 3 ft. 3 in. long. The Royalists had, however, some large ones. At Naseby they had twelve guns, but these they did not even bring into the field. One was a 24-pounder, drawn by twenty-six horses. So little advantage was expected to be gained by the use of the guns, that in the plan of the battle, drawn out by the King's command, no position is assigned to the artillery.(1) It was, in fact, a system of warfare well described by Elliot Warburton, as "limited to the wasting of gunpowder, and in making a noise,"(2) and the amount of quick-match used was certainly enormous, considering the damage done. When Waller entered Devizes, complaint was made that there was only 150 cwt. of quick-match in the town; whereupon, "diligent officers were directed to search every house in the town, and to take all the bed-cords they could find, and to cause them to be speedily beaten and boiled;" by this expedient, 15 cwt. was secured.(3)

(1) Warburton's *Prince Rupert and the Cavaliers.*
(2) *Ibid.*
(3) Clarendon, iii., b. vii.

We read in Vicars that "two captains informed that the enemy have made above a thousand great shots against the town, and yet had slain with them but one old man, that was making his will, just as the bullet hit him (the like at Gloster, when but one old woman and a pig was killed with a cannon), and that they had consumed at least two hundred barrels of powder in shooting in the great and lesser guns."(1)

We must take this statement, however, rather as the sneering reflection of a violent Puritan partisan, than as an historical fact. According to the account of one of themselves, the practice on their side was more effective: "Our gunners tooke their own bullet, sent it to them again, and killed a horse and a man."(2)

A salute being fired at Dover, about seven o'clock, on Sunday, 12th June, 1625, in honour of the landing of Queen Henrietta Maria, a piece of ordnance being discharged from the castle, "flew in fitters, yet did

(1) *God in the Mount*, Parl. Chron., pt. iii., p. 231.—If the following estimate be correct, it appears that nearly as much ammunition is now consumed in destroying life—even with all modern improvements—as was 200 years ago:—"General Rozencranz, in his report of the battle of Murfreesboro', estimates that out of 20,000 cannon-shots fired by the Federals, 728 hit the enemy; and that out of 2,000,000 musket-shots, 13,822 told. The result of this valuation is that it required 27 cannon-shots or 155 musket-balls to hit one man. Each ball weighing one mean ounce, 9 lbs. of metal would be used to kill a man with musketry; and with artillery, 225 lbs. of metal would be required for the same purpose; the deaths being in the proportion of 1 to 4 relative to the wounded, 36 lbs. of balls, or 900 lbs. of iron, would be employed in killing one man." (*Illus. Lond. News*, April 4, 1863.)

(2) *Letter from a Subaltern Officer of the Earl of Essex's Army.* (*Archæol.*, xxxvi. 231.)

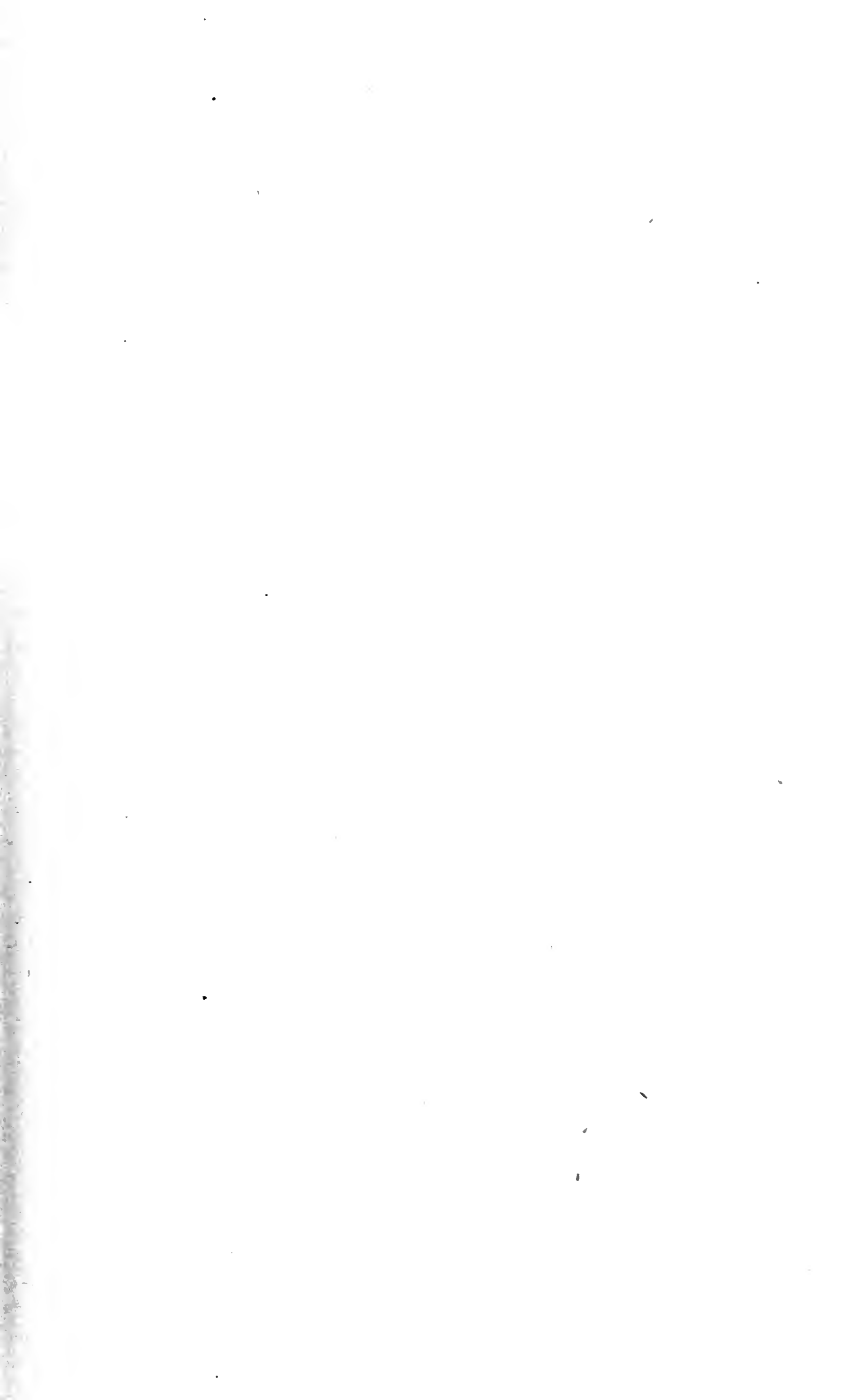
nobody any harm." (Laud's Diary, in Fuller's *Church Hist.*, b. xi.)

Red-hot balls are stated to have been a new invention introduced by Stephen Batthore, King of Poland, at the siege of Dantzig, in 1575. (Meteren, x. 169.—Wagenaer, vii. 359.)

Bomb-shells are elaborately described by Strada (x. 599), who says they were first used at the siege of Vakterdone (Wachtendenk, between the Rhine and Meuse), in 1588, and had been invented a few days before its commencement by an artisan of Venlo.

Valturius, the first edition of whose book was published in Latin, at Basle, in 1472, carries the invention of bombs at least a century further back than Strada; for in book x., p. 267, of his work, there is the figure of a cannon, somewhat of the howitzer kind, destined to throw a brazen ball with powder. It is entitled, "Machina quâ pilæ æneæ pulveris plenæ, cum fungi aridi fomite urentis, emittuntur."

Bombs were known in England in the sixteenth century. (Vide *ante*, p. 239, a description of the mortars constructed by Peter Baud, at Buckstead, in 1543.) Leonardo da Vinci, the celebrated painter, equally celebrated as a military engineer, in a letter addressed to Ludovico il Moro, Regent of Milan (*cir.* 1489), speaks of possessing "a kind of bombard, portable, and easy to carry, and with which to throw hail shot (*minuti di tempesta*), and with the fire of which to cause great terror to the enemy." The original of this letter is in the Ambrosian Library at Milan. A translation of it is in Jervis's *Engines of*



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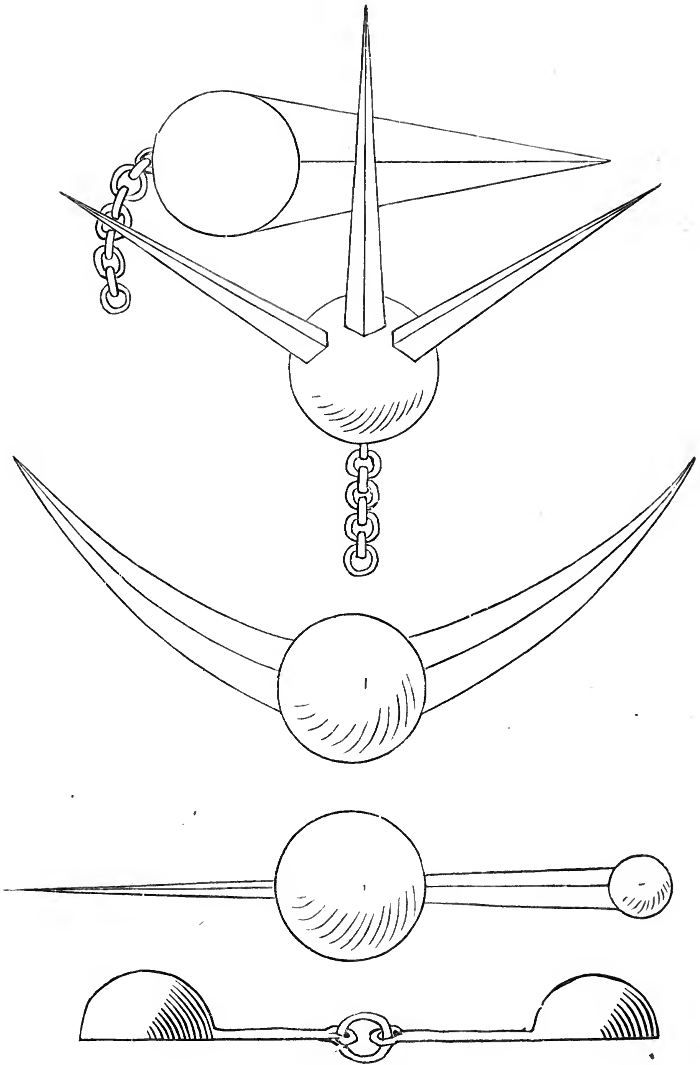
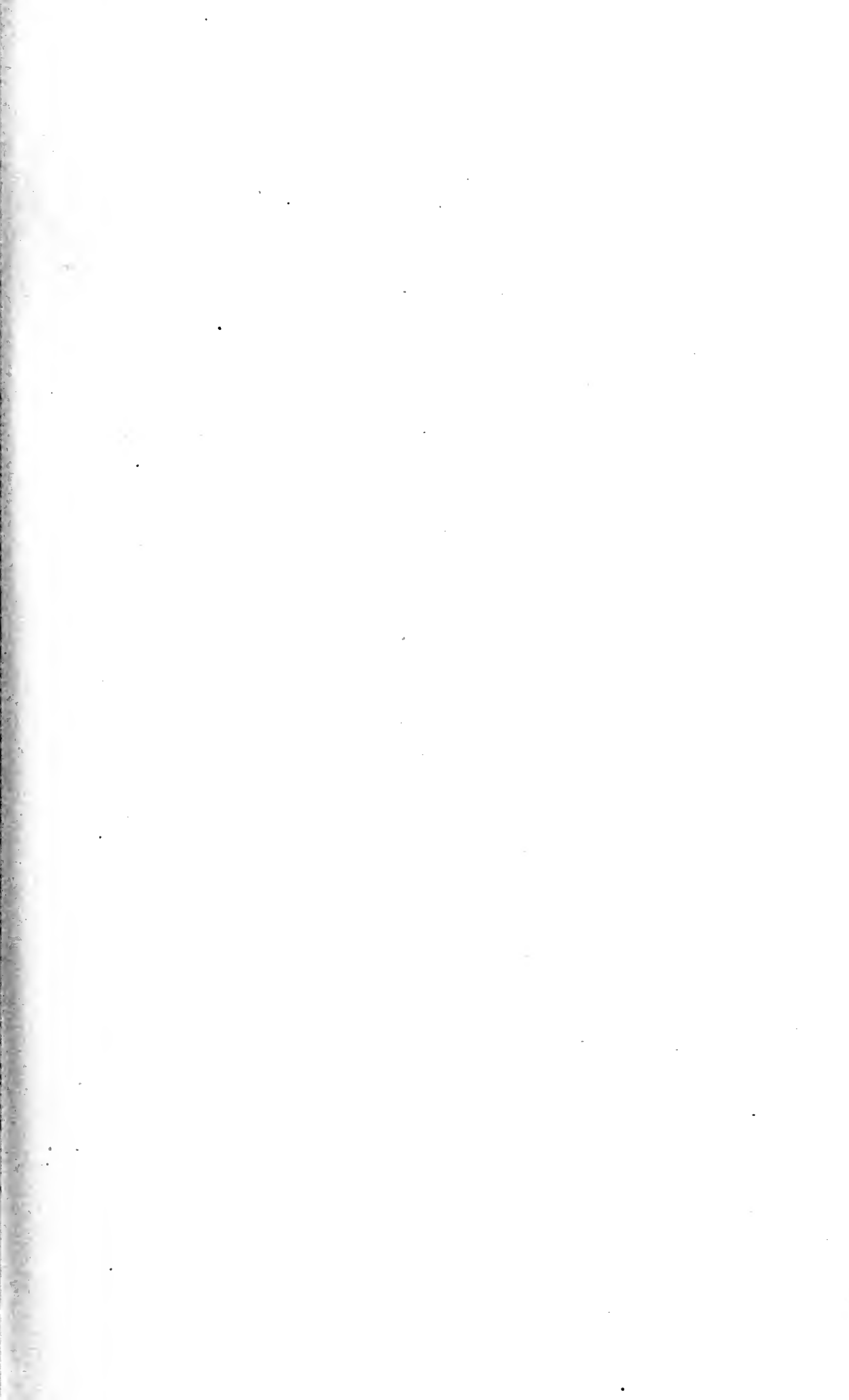
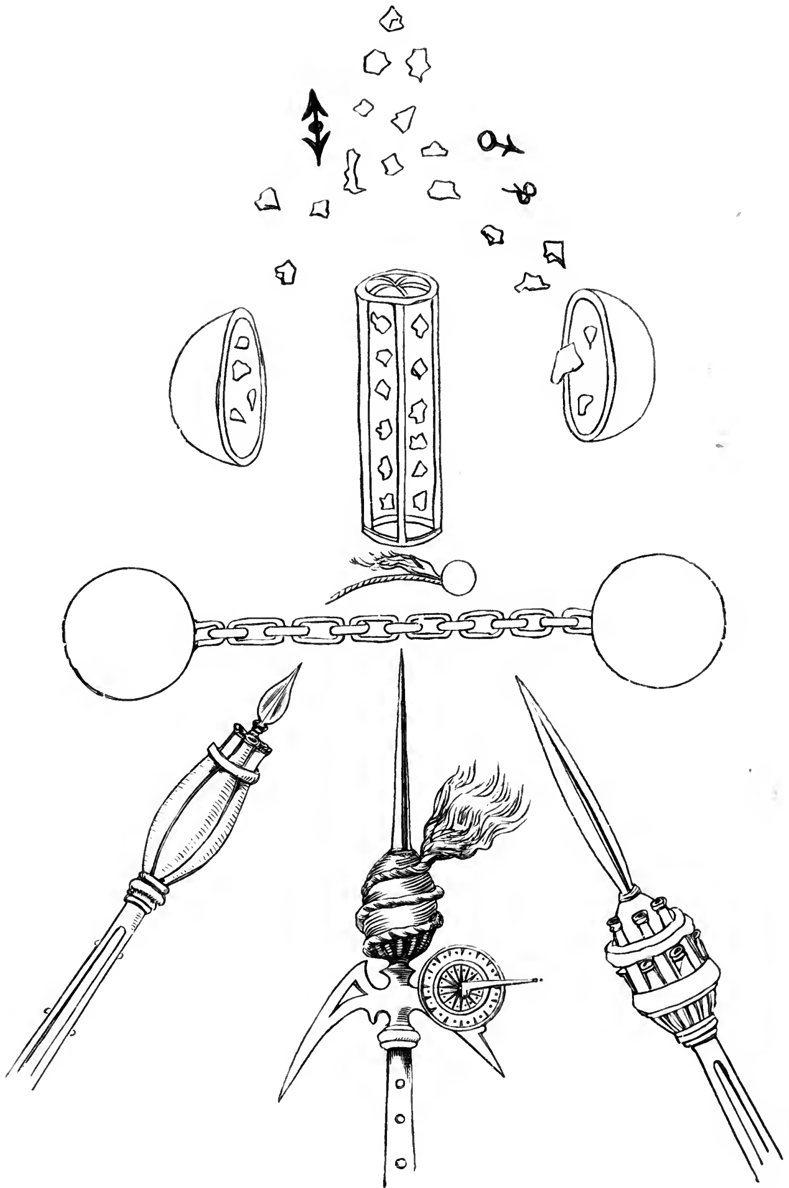


Bar and Chain Shot, used in Naval Warfare. (From Thomas Smith's *Book of Gunnery*, 1643.)





Chain Shot and Firework Weapons.

War, p. 41, accompanied by a sketch of the bombs and shells. See, also, the question ably discussed in *Notes and Queries*, 2 S., xi. 74.

In the original MS. Ordnance Accounts, in the possession of Mr. Pritchett, there is the following entry:—

"1657.—Contracted with Henry Quintyn to supply and to cast several mortar-pieces, 18½ inches one, 14½ one, 12¼⅛ one. The mortar of 18½ inches to be delivered at the Tower Wharf within one month. Quintyn to have a sufficient amount of 'mettle' delivered to him at Snodland, in Kent, out of the State stores, for the founding of the same, and to be allowed 44s. per ton for the co-mixture, workmanship, &c. His Highness and the Commonwealth arms fairly engraved upon an embossment."

It appears also, by the same, that guns were proved at Millale (near Aylesford), on the Medway.

Ricochet firing is said to have been introduced by Vauban, for the first time, at the siege of Philipsbourg, in 1688, and that he established ricochet batteries on the left side of the Rhine, which enfiladed two of the points of attack. (Smyth's *Wars of the Low Countries*, p. 71. Lib. Roy. Un. Serv. Inst.)

Plate XXII. gives a representation of bar and chain shot, used in naval warfare about A.D. 1590, taken from Thomas Smith's *Book of Gunnery*, before quoted, published in 1693.

Plate XXIII.—Chain shot, and firework weapons, also copied from the above work. The long cylindrical projectile is curious. Thomas Smith writes:—

"If you fill cases of wood made like unto a lanthorn full of pebble-stones, dice-shot, musket-bullets, pieces of iron, or such like, discharging the same out of any peece of great ordnance (especially out of a murdering peece) will doe great execution." (p. 102.)

A chronological catalogue of works on the subjects of Artillery and Gunnery (compiled by Brigadier-General J. H. Lefroy, R.A.) is printed in the *Proceedings* of the Royal Artillery Institution, vol. ii.

It is not generally known where the two pieces of handsome ordnance, placed on the Parade ground in the rear of the Horse Guards, came from. It is well to place on record here some notice of their history. They are carefully guarded from touch by the sentries, but they are unfortunately wholly unprotected from the weather. The one on the south side is thus described by Olinthus Gregory, in his *Course of Mathematics*, iii. 324 :—

"Two of these French mortars, which were so long the annoyance of the inhabitants of Cadiz, were landed last week at the Gun wharf, Portsmouth ; one of them, called the Duke of Treviso, is nearly eight feet long, and presents a singular specimen of French invention. In shape, it bears some resemblance to a howitzer. The calibre is about the size of 13-inch mortars, though in their internal construction they differ materially. They are of brass, as are also the beds. The largest took 40 lbs. of powder for its charge, and will throw a shell to the immense distance of three miles. The other, except in being fixed to a bed, is not unlike in make and size to our English

13-inch mortars. The muzzles are much battered and disfigured, occasioned by the French having fired them into each other on abandoning the siege. They were brought by H. M. S. *Revenge,* and are said to be a present for the Prince Regent. One of these is now to be seen in St. James's Park, near the Horse Guards' Parade, upon an appropriate pedestal, constructed in the Gun-carriage Department, Woolwich."

The one on the north side is described in the *Gentleman's Magazine,* lxxiii., pt. i., p. 279:—

"March 21, 1802.—This day being the anniversary of the memorable battle of Alexandria, the Turkish piece of ordnance, taken in that battle, was placed in St. James's Park, amidst a great concourse of people. It is sixteen feet in length, but was originally twenty feet. The carriage for this cannon, on each side, in different compartments, was inlaid with copper; in the centre is represented Britannia seated on a rock, with a lion at her feet, pointing to the British camp; the figure of a crocodile, four feet long, was executed in a masterly style of workmanship. The Royal crown, with the initials G. R., the sword and sceptre at the lower part, added to the embellishments; and also a star, with the motto of the Knights of the Garter. The head of the cannon rests on the head of a sphynx. The Band of the Guards, as soon as it was placed, played 'God save the King,' and the soldiers and populace gave three huzzas. Among the company who were present were the Duke of York, the Earl of Chatham, accompanied by the Countess, Lord Gwydir, and a number of nobility."

CHAPTER V.

HAND FIRE-ARMS—WHEN INTRODUCED—HAND-CANNON—HAND-GUN—ARQUEBUS—ARQUEBUS-A-CROC—HAQUEBUT—DEMI-HAQUE—MUSKET—WHEEL-LOCK—VAUBAN-LOCK—TRICKER-LOCK—SNAPHAUNCE—FIRST FLINT-ARM—CALIVER—FLASK—FUSIL—CARBINE—CURRIER—MUSQUETOON—PISTOL—DAG—PETRONEL—BLUNDERBUSS—DRAGON—HAND-MORTAR—MUSKET-ARROW—HENRY VIII.'S WALKING-STAFF—MATCH-BOX—CARTRIDGE—PATRON—BANDOLEERS—BREECH-LOADERS—BAYONET.

Hand Fire-arms.

PORTABLE or hand fire-arms—what are now called small arms—although invented in the fourteenth century, were regarded with such prejudice, or were really so inefficient in their effects, that they did not come into general use for nearly three centuries afterwards. It has been previously observed that the most stringent statutes for enforcing the practice of archery were enacted *after* the introduction of fire-arms. In the ordinance of Queen Mary respecting armour and weapons, the alternative is left to the choice of the people, whether they would provide a long-bow and sheaf of arrows, or a harquebus, in every case where by law they were charged with the latter; and even up to the 4th and 5th James I., bows and arrows might be kept in Wales, instead of armour.

Sir Samuel Meyrick, in a paper in the *Archæologia* (xxii. 60), professes to give the very year of

their introduction, upon the authority of an eye-witness. "It was in 1430," says Billius, "that they were contrived by the Lucquese, when besieged by the Florentines; and we shall find that not only is the credit of the first conception of these weapons due to the Italians, but most of the subsequent improvements."

But in an inventory of the military stores of the city of Bologna, taken 1397,(1) there is this entry: "Item, viii. sclopos de ferro,(2) de quibus sunt *tres a manibus*." Thanks to the investigations among the State papers, we are enabled to quote an instance of the still earlier use of fire-arms in this country, although the invention was doubtless received from abroad. An inquisition taken in 1375 at Huntercombe (a place belonging to the Abbey of Dorchester), and now preserved among the records at the Chapter-house, Westminster, states that one Nicholas Huntercombe, with others, to the number of forty men, armed with "haubergeons, plates, bacenettes cum aventayles, paletes, lanceis, scutis, arcubus, sagittis, balistis, *et gonnes*, venerunt ad manerium de Huntercombe," and there made assault, &c.(3) It appears very improbable, as Mr. Hewitt observes, that a body of men making a sudden attack upon an abbey manor-house, would be armed with any kind of "gonnes" except hand-guns.

(1) Printed at the end of vol. i. of *Études sur l'Artillerie*, p. 364.

(2) Iron guns, from *scloppus*, a noise.

(3) Coram Rege, Hil., 50 Edw. III.—For this curious evidence given in *Anc. Arm.*, ii. 298, Mr. Hewitt was indebted to the researches of Mr. Burtt, Assistant-Keeper of the Public Records.

Fire-arms were at first called hand-cannons, hand-guns, and hand-culverins, being merely modifications of heavier ordnance. They afterwards acquired the appellation of arquebus, hackbut, calivers, musquet, and, lastly, they attained their present name of fire-locks. The following is an enumeration of their varieties and accompaniments (1):—

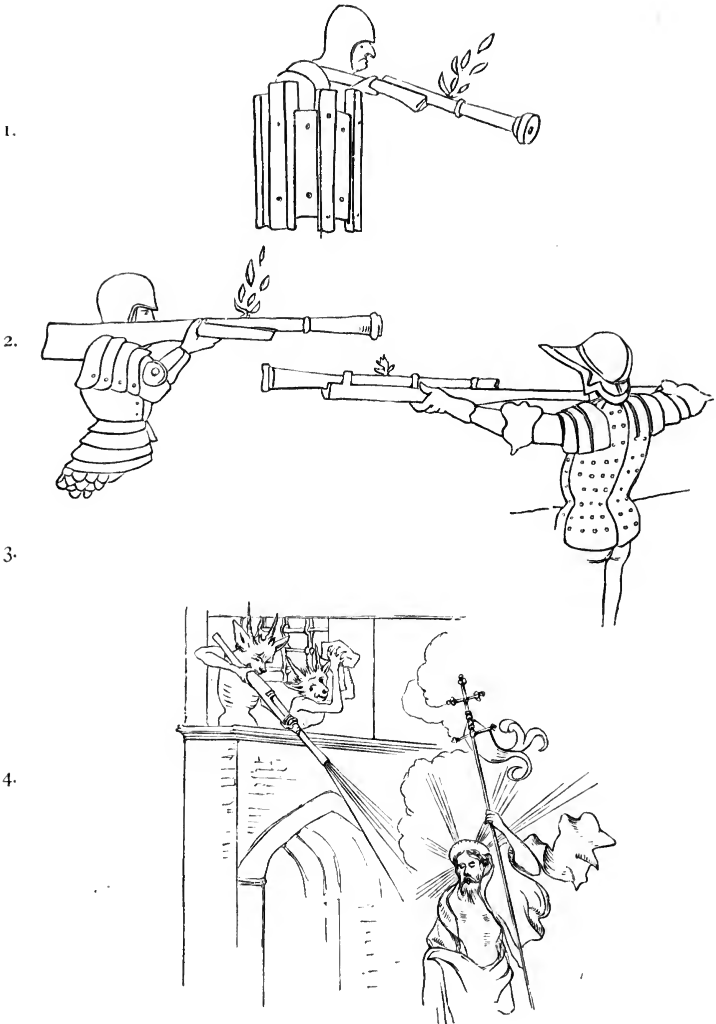
Hand-cannon.	Currier.	Blunderbuss.
Hand-gun.	Snaphaunce.	Dragon.
Arquebus.	Caliver.	Hand-mortar.
Arquebus-à-croc.	Carabine.	Dag.
Haquebut.	Fusil.	Bandoleer.
Demi-haque.	Musket-arrow.	Cartridge.
Musquet.	Match-box.	Patron.
Pistol.	Powder-horn.	Swyne's Feathers.
Tricker-lock.	Flask.	Breech-loader.
Fire-lock.	Touch-box.	Bayonet. (2)
Self-loading-gun.	Musquetoon.	
Wheel-lock.	Petronel.	

The Hand-cannon was probably the first of this description of weapons, and was of the simplest construction, being, in fact, a mere adaptation to a small scale of the primitive cannon, from which it differed in nothing but its size. It consisted of a simple metal tube, fixed on a straight stock of wood, about three feet in length. The touch-hole was, in the first instance, at top, like its prototype the big gun, but the liability of the priming to be blown away led to the improvement of placing a small pan under the right side, to hold the powder.

(1) See *Archæol.*, xxii. 59.

(2) Almost all of these have been engraved in Skelton's *Specimens of Arms and Armour*.

No. 24.



1, 2, and 3. Early Fire-arms. (From Valturius.) A.D. 1472.

4. The earliest known drawing of any kind of Hand Gonne. (From an etching by Israel von Mechlin, where the Devil is shooting at our Saviour, in a scene of the Resurrection.) About A.D. 1420.

This pan was the first step to the invention of the gunlock.

Plate XXIV.—Nos. 1, 2, and 3 are early fire-arms, from Valturius, *De Re Militari*, A.D. 1472.—No. 4 is from an etching by Israel von Mechlin, about A.D. 1420, and is the earliest known drawing of any kind of hand-gun. The subject is remarkable. The devil is represented shooting at our Saviour, in a scene of the Resurrection! See also the figure on one of the illuminations in a French translation of Quintus Curtius, written in 1468, preserved among the Burney MSS., Brit. Mus. (No. 169, fol. 127). From the colouring, it would appear that the barrel was made of iron.

The Hand-gun was the first improvement on this. It was cast in brass, and was of greater length, and hoops were added under the barrel, through which it might be pinned to the stock. (See No. 3 on the above Plate.) It had also the addition of a flat piece of brass made to turn on a pin, to protect the priming in the pan from the effects of wind or rain. In a roll of purchases made for Holy Island is the following item:—"A.D. 1446, bought ii. handgunnes de ere, iiii*s*."

When Edward IV. landed in Yorkshire, at Ravensburgh, on the Holderness side of the Humber, in 1471, it is stated that he brought over three hundred Flemings, armed "with *hange gunnes*."(1) The word

(1) "In the xlix. yere of King Henry the VI. came King Edward with the Lord Hastings, the Lord Say, and ix.c English men, and iiic. Fleminges with hange gunnes." (Leland's *Collect.*, i. 721.)

hange is probably an error of the transcriber for hand; but there are instances of early fire-arms being provided with a ring for suspension.(1)

An early mention of hand-guns appears in the *Paston Letters,* written about 1459; and illustrations of them are to be found in Roy. MSS. 18, E. v., fol. 34, A.D. 1473.

By the 33rd Henry VIII. it was enacted that no hand-gun should be used of less dimensions than one yard in length, gun and stock included.

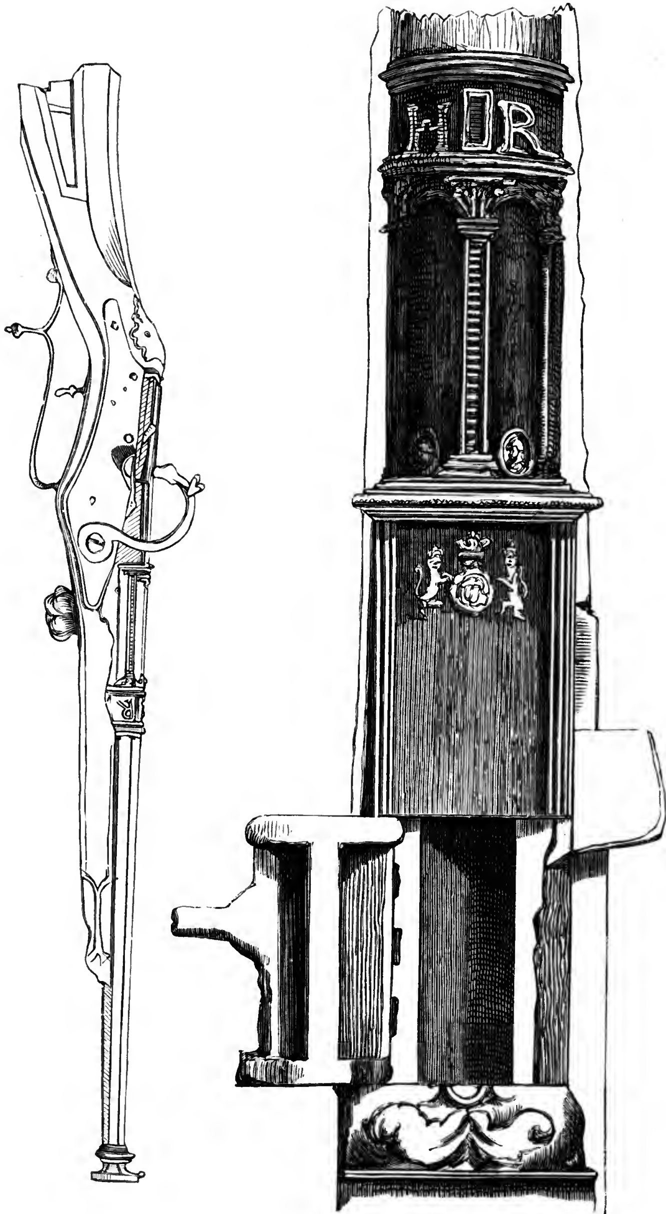
The ARQUEBUS, corrupted to "harquebus," was so called, according to Fauchet (*Livre d'Origines,* liv. ii., ch. i., p. 530), from the Italian *arca-bouzo,* corrupted from *bocca,*(2) and signified a bow with a mouth or hole in it. It had a trigger, said to be suggested by that of the cross-bow, and its stock certainly closely resembled that of the cross-bow.

Another assigned derivation of the term is from the Dutch *bus* (*büsse* in Low German), the barrel of a gun. The most formidable of cross-bows, before fire-arms came into general use, was one which discharged a ball or pellet from a barrel. This appears more naturally the derivation of arquebus, which was, literally, *arc-et-bus,* bow and barrel. In process of time, as gunpowder came into use, the *arc* disappeared, and the *bus* remained; and arquebus, though it properly implies a bow fitted with a tube or barrel, came into use as the designation of the arm in

(1) See an engraving in De Vigne's *Vade-Mecum du Peintre,* tom. ii., Appen. It is copied in *Anc. Arm.,* vol. iii., pl. 104, p. 55.

(2) Or from *bugio,* a hole.

No. 25.



Harquebus, loading at the breech, with movable chamber; belonged to Henry VIII. Length of barrel, 1 ft. 11 in. Date 1537. (Tower Coll., $\frac{12}{1}$.)

question.[1] "Formerly," says Zedler (*Univ. Lex.*), "and before the invention of gunpowder, *arquebuse* signified "a bow with a barrel" (*bogen-büchse*), which is the literal meaning of the word.

Previously to the introduction of the trigger, the match, which was a thin coil of rope, had been held in the hand; the match-lock was now introduced, and distinguished the arquebus. In its early form it seems to have been merely a piece of iron in the form of the letter S reversed, and made to turn on a pivot. The upper part was slit, to hold the match, and the lower was pushed up by the hand, when intended to ignite the powder. In this simple form it remained till towards the middle of the sixteenth century, when the lower part of the S was got rid of, and a trigger like the present substituted.

Plate XXV.—Harquebus, *loading at the breech*, with movable chamber, from the Tower Collection, $\frac{12}{1}$. This arm appears to have belonged to Henry VIII. It is named with others in the Tower Inventory of 1679:—"Carbine, 1; Pistol, 1; and Fowling Piece, 1; said to be King Henry VIII." Among the ornaments are the King's initials, "H. R.," and a rose, crowned, supported by two lions. The date, "1537," is engraved on the breech. The armourer's mark is a

(1) Hence the name of *Bess*, which the musket has borne more recently. *Bess*, or *bus*, is the last syllable of the old *arquebus*, cut off for separate use, just as is the more recent instance of *bus* from *omnibus*. Brown Bess, therefore, is equivalent, in its primary meaning, to brown barrel. (See some able remarks on this point in that useful periodical, *Notes and Queries*, 2 S., vol. v., p. 259.)

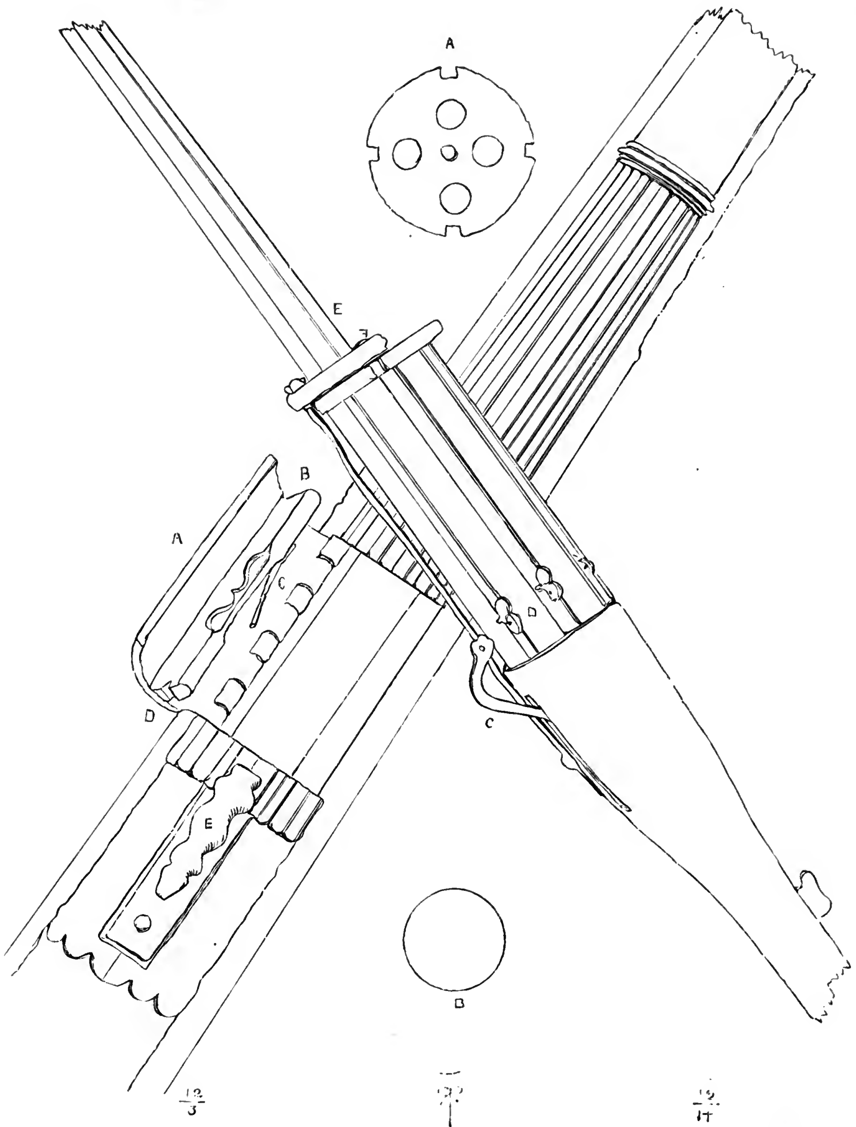
fleur-de-lis, surmounted by the letters "W. H." Length of barrel, 1 ft. 11 in. (*Tower Cat.*, p. 67.)

Arquebuses were invented towards the end of the fifteenth century. Fabricius Colonna, who was born 1469 and died 1530, is made to say, in Machiavelli's dialogues upon the art of war, "The harquebus, which, as you know, is a weapon newly invented, and very necessary for the present time;" and Du Bellay writes, "The harquebus has been invented within these few years, and is very good." He wrote under the reign of Francis I. (1515-47). De Comines mentions the arquebus in his account of the battle of Morat, fought by the Swiss against the Imperialists near Berne, in 1476. In England, on the first formation of the Yeomen of the Guard, in 1485, one half was armed with bows and arrows, and the other with arquebuses. A strong party of arquebusiers are seen in the picture at Windsor Castle, which represents Henry VIII.'s procession to meet Francis I. at the Field of the Cloth of Gold.

The French appear to have been late in the adoption of this weapon. "En ce temps-la" (1523), writes Blaise de Montluc, "il n'y avoit point d'arquebusiers parmy nostre nation." (*Commentaires*, liv. i., p. 8.)

In the *Lancashire Lieutenancy*, "Sir Thomas Hesketh, Knt., of Rufford," was to find, *inter alia*, "Harquebutte ij," in 1574; and in an account taken of "the store of all sorts and kinds of ordnance in the Tower," on the 13th of September, 1559, printed in *Archæologia*, xxxvii., there is this entry:—"Double

No. 26.



$\frac{12}{3}$. Harquebus, with fluted barrel. Length of barrel, 3 ft. 6 in. Probably the Fowling-piece attributed to Henry VIII. The breech-piece, A, closes, and on drawing back E, the spring, C, throws the breech up.

$\frac{12}{14}$. Matchlock Revolver. A little later than the above. (Tower Collection.)

harquebutts, 80; guilt harquebuts, 397; to be new bought within the realm, 400:" and this favourable notice of English-made weapons—"The peeces made w[t]in the realm are double as good as any other."

The arquebus appears to have been a favourite weapon. In the translation of Du Bellay we read, "At present every man will be a Harquebussier. I knowe not whether it be to take the more wages, or to be the lighter laden, or to fight the further off."(1) The first reason was probably the correct one. Arquebuses weighed about twelve or fifteen pounds.(2) Their fire does not seem to have been very effective, and the author recommends greater care in the selection of the men; for, says he, "in a skirmish wherein tenne thousand Harquebussiers are shot (*i.e.*, furnished with fire-arms), there dieth not so mutch as one man, for the Harquebussiers content themselves with makyng of a noyse, and so shoot at all adventures."

PLATE XXVI.—Harquebus with fluted barrel, of the same period as the one represented on Plate XXV. (Also from Tower Collec., $\frac{12}{3}$.) Length of barrel, 3 ft. 6 in.; probably the "fowling piece" attributed to Henry VIII. The breech-piece, A, closes, and on drawing back E, the spring, C, throws the breech up. A wheel pistol of similar construction is engraved on Plate XLI.

(1) *Instructions for the Warres*, p. 25.

(2) "Der Fussknecht hat mit einem hacken von 12 bis 15 pfund schwer mit aller Rüstung zu tragen genug." (*Senfftenberg*, b. v., p. 2.)

$\frac{12}{14}$. Matchlock revolver. Date a little later than the above. Revolvers are referred to in Warde's *Animadversions of Warre*, 1639.

Repeating Gun in 1580.

As it is admitted that there is nothing new under the sun, so we may read of a repeating gun in 1580, in the petition of "John the Almain" (German), recommending one of his countrymen, who had invented "an arquebuse that shall containe ten balls or pellets of lead, all the which shall goe off one after another, having once given fire, so that with one harquebuse one may kill ten thieves or other enemies without re-charging."(1)

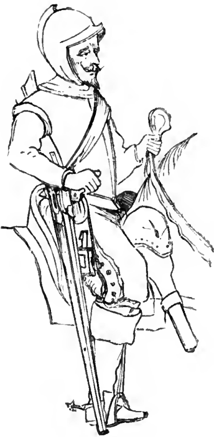
Mounted arquebusiers were used at the battle of Fornova, in 1495;(2) and Du Bellay describes the equipment of the French horse-arquebusiers according to an *ordonnance* of Francis I. On their heads they were only to wear "Murrions (morions), to the intent to see the better round about them, and to have their heads at more liberty, a sword by their side, a mase at the pomell of their saddles on the one side, and a harquebusse in a case of leather on the other, which must be made fast that it stirre not: which harquebusse may be two foote and a halfe, or three foote long, or rather more so it be light."(3)

Foot-arquebusiers, we learn from a military writer of the seventeenth century, were still less "at liberty," "some being in a custom of too much curiosity in

(1) State Papers, *Dom. Eliz.*, p. 696.
(2) Philip de Comines, liv. viii., ch. vii.
(3) p. 62.

No. 27.

The marching Postures of ye Harquebusiers.



Harquebusiers, with Snap-hance Carabines. 1632. (From Cruso's *Militarie Instructions for Cavallrie*, A.D. 1632; chap. xxx., p. 43.)

arming hargobusiers, for besides a peece, flask, tutch-box, rapier and dagger, they load them with a heavy shirt of mail, and a burganet: so that by the time they have marched in the heat of summer, or depth of the winter, ten or twelve English miles, they are more apt to rest than ready to fight." (1)

In Cruso's *Militarie Instructions for the Cavallrie* we obtain figures and descriptions of mounted harquebusiers of 1632, as represented on the accompanying Plate XXVII. They are armed with snaphance carabines. "The harquebusier," he states, incorrectly, "was first invented in France, at the time of the warres of *Piedmont*, &c." For offensive arms, "he must have the harquebuse of two foot and a half long (the bore of seventeen bullets in the pound, rowling in), hanging on a belt by a swivell, a flask, and touch-box. (2) In Markham's *Souldier's Accidence*, before quoted, we have the "harquebus of three foote three inches long, and the bore of twenty bullets in the pound;" (3) and the author, writing in 1643, speaks of "harquebushes, which are now out of use with us." (p. 5.) Arquebuses were often fired from a rest. (4)

Brantôme supplies us with some interesting details as to the places where fire-arms were manufactured; but he gives the palm to the gunsmiths of Milan,

(1) *England's Trainings*, by Edward Davies, Gentleman. (1619, p. 4.)

(2) Chap. xxx., p. 43.

(3) See *ante*, "Ancient Cavalry."

(4) "Les arquebuses que l'on tiroit sur une fourchette." (*Memoires de Martin du Bellay*, edit. Petitot, 2e. liv., p. 347.)

and of them to "Maistre Gaspar de Milan, qui a esté le meilleur forgeur qui jamais sera."(1)

The price of "a harquebus, in 1632, with a fire-lock and belte, swivel, flaske, key, mould, worme, and scowrer, £1 16s." (Rymer, xix. 214.)

The Arquebus *à croc*, or with a hook, was so called on account of the hook cast with the piece, but it is doubtful if this should enter in the category of hand fire-arms, "as it was placed on a kind of tripod and so fired," although Daniel includes it among the *canons à main*. (2) Meyrick (p. 704) contends that it is not a hand fire-arm; that so far from being fired from a rest, it was held by a swivel fixed on the gunwale of a ship, or on the wall of a fortress, and far too heavy to have been used by the hand. In proof of this, he quotes Grimstone's *Historie of the Netherlands* (1608): speaking of the year 1579, he says, "The greatest slaughter which the besieged made at these two breaches, was by 6 shippe pieces, and certain harquebusses à croke; being charged with chambers, they stood firm, and never altered their mark." This is borne out by the survey of the weapons in the Tower, just alluded to; it is there included among "*Forged Ordnance of Iron:* Quarter slings, 6; fowlers, 43; baces, 137; harquebutts a croche, 80." Ludlow also mentions "a great wall-gun, called a Harquebuz de Croq." (*Mems.*, i. 72.)

(1) Tom. vii., p. 425 *et seq.*—"It may not be generally known," says Sir S. Meyrick, "that the arquebusade water was so called from being applied to cure gun-shot wounds." (*Archæol.*, xxii. 67.)

(2) Tom. i., liv. vi., ch. v.

The Haquebut was an improvement upon the arquebus, by reason of a hooked or crooked stock, whence it derived its name. (1) The idea possibly originated with the Germans, and was thence, by the English, termed a haquebut, or hagbut. One may imagine the comparative facility of taking aim afforded by a crooked stock, and the difficulty of bringing the eye to a sight along the barrel of a straight piece fired from the breast. By giving to the butt a hooked form, the barrel was elevated, while the horizontal position would be retained. The invention was known in this country in the reign of Richard III. In the Harl. MSS., No. 433, there is an order to the Constable of the Tower to deliver "8 serpentynes upon carts, 28 hackbusses with their frames, 1 barrel of touch-powder," &c.; and another order respecting the delivery of "2 serpentynes, 2 guns to lie on walls, 12 hackbusses," &c.

It was a smaller weapon than other fire-arms, for by the 33rd Hen. VIII. it was enacted that no hand-gun should be used of less dimensions than one yard in length, gun and stock included, and no hagbut under three quarters of a yard inclusive. A MS. is preserved in the Cottonian Library, containing the "Certificat of the decayes of the castle, towne, and citidell at Carlile, by Walter Strykland, in 1563,"(2) in which are the following items:—"Hagbutts uppon crooke xiij, wherof xij serviceable. Harquebuzes xxx[ty] decayed, and past service." (fol. 224.)

(1) Probably from the German Haken, a hook or crook.
(2) *Titus*, F. xiii., fol. 220.

The English made use of mounted hagbuttiers in the expedition to Scotland under the Protector Somerset. Edward VI. in his journal, says:—"My Lord of Warwick was almost taken chasing the Earl of Huntley, but he was rescued by one Bertivelli, with 12 hagbuttiers on horseback." Patten, describing the same expedition, speaking of the Scotch, says, "of hakbutters have they few or none." [1] "Sir Peter Mewtes, 1st Captain of the English hakbutters on foot, being in number xi.c." [2]

The Demi-haque was, as we may infer from its appellation, a smaller description of hagbut—in fact, what we might call a long pistol, the butt-end of which was made to curve so as almost to become a semi-circle. In the MS. just quoted of the citadel of Carlisle it is recorded, "Halfe haggs xxix, not serviceable" (fol. 223); and in a burlesque printed in 1594, "All such persons as shall shoot in any hand-gun, demy-hag, or hagbut, either half-shot or bullet," &c. [3]

The Musket, in ornithology, denotes the male young of the sparrow-hawk. [4] Names of animals were generally bestowed upon ordnance, as the falcon, and its diminutive falconet, and so forth; and as the musket was the most important of small fire-arms, it was probably thought worthy of being called after

[1] *Journal* (pub. 1548).—Printed in *Scottish Hist. Fragments.* (Brit. Mus.)

[2] He was afterwards Governor of Guernsey.

[3] *Gesta Grayorum, or the History of the High and Mighty Prince Henry*, &c. (Brit. Mus.)

[4] "Sparhawk and the Musket," Izaak Walton, p. 12; edit. Hawkins.

the smallest of these birds of prey. [1] The term *mousquette*, however, was applied on the Continent to denote the iron part of the small arrows which were discharged from guns, and sometimes the arrows themselves. [2] The weapon owed its introduction to the inconsiderable effect done by pieces of small calibre. It was a long, heavy weapon, carrying balls of much greater weight than any other fire-arm then invented, and, on account of its size and weight, required to be fired on a sort of fork or rest. It was an invention of the sixteenth century, but it does not appear to have been in general favour with the English military writers of that period. Sir Roger Williams, an officer who saw much service in the Low Countries under Sir John Norris and other commanders, *temp*. Elizabeth, published *A Briefe Discourse of War*, in 1570; he is in favour of the musket, and says that it is the best small shot that ever was invented, and that 500 muskets are better than 1,000 calivers, few armours being of sufficient proof to resist them at ten or twelve score yards. His contemporary, Sir John Smythe, another old soldier, in his *Instructions*, &c., differs widely from the above opinion. He says 1,500 archers would readily break

(1) Du Cange, *v. Muschetta.*—Another derivation has been assigned by some: "Cette arme d'origine moscovite, introduite en France en 1857." (Bescherelle, *Dict. Nat.*)—"In the 40th year of the xvth century muskets were invented, which succeeded the arquebus. The invention is generally attributed to the Muscovites." (*The Target, or a Treatise upon a Branch of the Art Military.* 1756. Brit. Mus.)

(2) Archives de Lille. Année 1382.—"A Henriet le Gay pour iiic. et demy de fiers appelés *mousquettes*." (Quoted in *Études sur l'Artillerie*, iii. 105.)

3,000 musketeers, if the trial were made in an open and fair field, for that the musketeers, "if they meane to worke any effect, of necessitie must stand still to discharge their pieces, during which time they shall to their great error and mischiefe receive continuall volees of the archers' arrows upon all parts of their bodies," &c. Muskets would carry their bullets a great deal further than archers could shoot, yet the wonderful uncertainty of the former was great, and he recommends that musketeers be elected of such men as are of good grace and strength of body, on account of the weight of the weapon. "Muskets," he says, "were first used in Italy, about the year 1530, as he had divers times heard from ancient captains of the Italians and Spaniards."

Brantôme affirms that the Duke of Alva was the first who made use of them in the North, when he assumed the government of the Spanish possessions of the Low Countries in 1567,(1) and organised those bands of musketeers who became so terrible to the Dutch; and that Philippe Strozzi, Colonel-General of the French Infantry under Charles IX. in 1573, was the first who brought them in general use in the French army;(2) although Père Daniel maintains that this weapon was known earlier in France, as he saw a musket in the cabinet of arms at Chantilly, marked with a salamander, which was the device of

(1) Brantôme, *Hommes Illustres et Grand Capitaines François*, p. 440.

(2) "C'a esté (M. de Strozzi) aussi le premier qui à mis l'usage des mousquets en France." (*Ibid.*, p. 437.)

Francis I.(1) With us the adoption of them, according to British precedent, was some time after their introduction in the leading foreign armies. Colonel Thomas Morgan, whose veteran troops, we are informed, were the best harquebussiers of our nation, was the first who taught the English to like the musket,(2) This was in 1577, when Queen Elizabeth was at length constrained to send an auxiliary force to the Dutchmen fighting so obstinately for their liberty. Shakespeare once makes use of the word "musket" in *All's Well that Ends Well* (which appears to have been one of his earliest plays. See Introductory Notice to Knight's *Shakespeare*) :—

"To be the mark of smoky muskets." (Act iii., sc. 2.)

Musket-rests.

The first Spanish muskets had straight stocks; the French, curved ones.(3) In appearance they much resembled the haquebut. Sir Thomas Kellie, in his *Art Militaire*, published 1621, says "the barrel of a musket should be four feet in length, the bore capable of receiving bullets, twelve whereof weigh a pound." The consequence was that on account of its length and weight it could not be fired without a support, and hence originated the rest—a staff the height of a man's shoulder, with a kind of fork or semi-circle of iron at the top, to receive the musket, and a ferule at bottom to steady it in the ground.

(1) *Mil. Franc.*, i., liv. vi., ch. v.

(2) Sir Roger Williams' *Brief Discourse of the Spanish Discipline in War.* (4to. 1590.) Also his *Brief Actions on the Low Countries.*—See also Oldy's *Life of Sir Walter Raleigh*, i. 25.

(3) *Ibid.*

On a march, when the piece was shouldered, the rest was at first carried in the right hand, and subsequently hung upon the wrist by means of a loop tied under its head. A similar rest was used by mounted arquebusiers.

PLATE XXVIII.—Musket-rest at Warwick Castle. Also shot fired against the same castle by the Royalists. The large hooks from which woolsacks were hung out, for the defence of the barbican, still remain.

An attempt to further utilise these rests was made, by rendering them defences for protecting the musketeers from cavalry whilst loading, like the stakes placed before the archers. This gave rise to the swine's feathers,(1) which were borne by musketeers and dragoons in our armies until the seventeenth century—in fact, until superseded by the bayonet.

"Lastly, for their right hands," says Markham, "they shall have rests of ash-wood, or other tough wood, with iron pikes in the nether end, and half hoops of iron about, to rest the musquet on; and double strong strings fastened near thereunto, to hang about the arm of the soldier, when at any time he shall have occasion to trail the same; and the length of these rests shall be suitable to the stature of the

(1) Perhaps from *Sweyn* (Ger.), a wild boar, *i.e.*, a boar's bristles (Meyrick, iii. 78); a more probable derivation than from Swedish, as the Swedes do not appear to have been remarkable for using them.—"Bockler, the engineer, speaks of an instrument that might serve for both rest and feather." (Turner's *Pallas Armata*, p. 167.)

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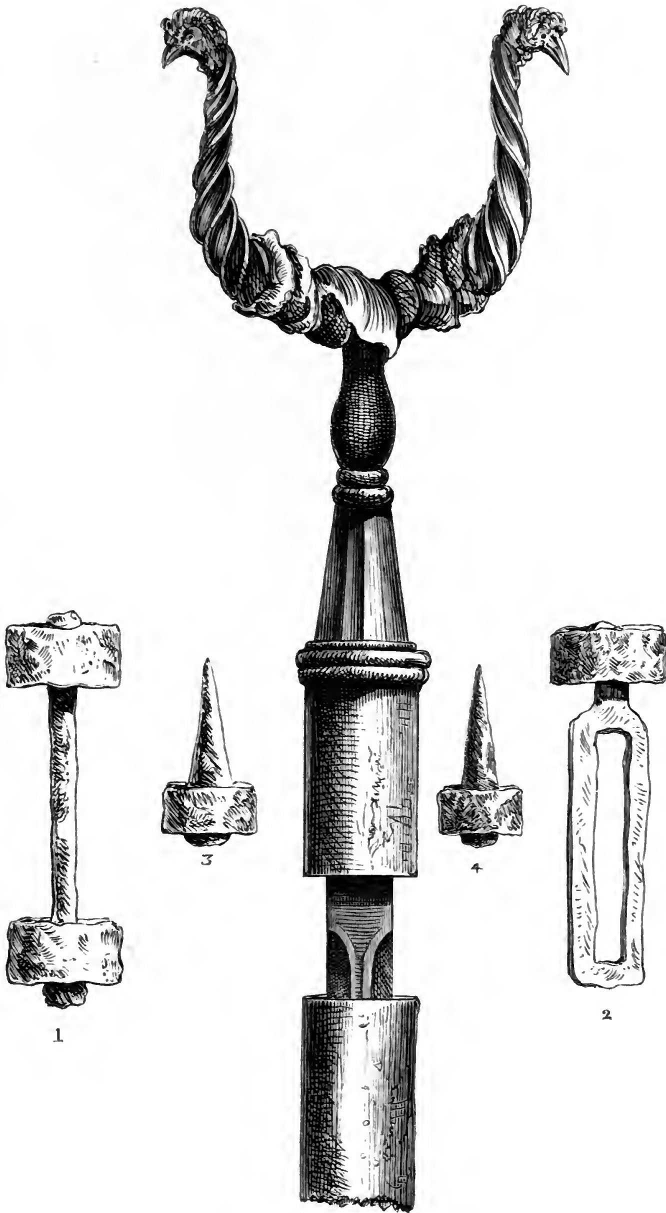
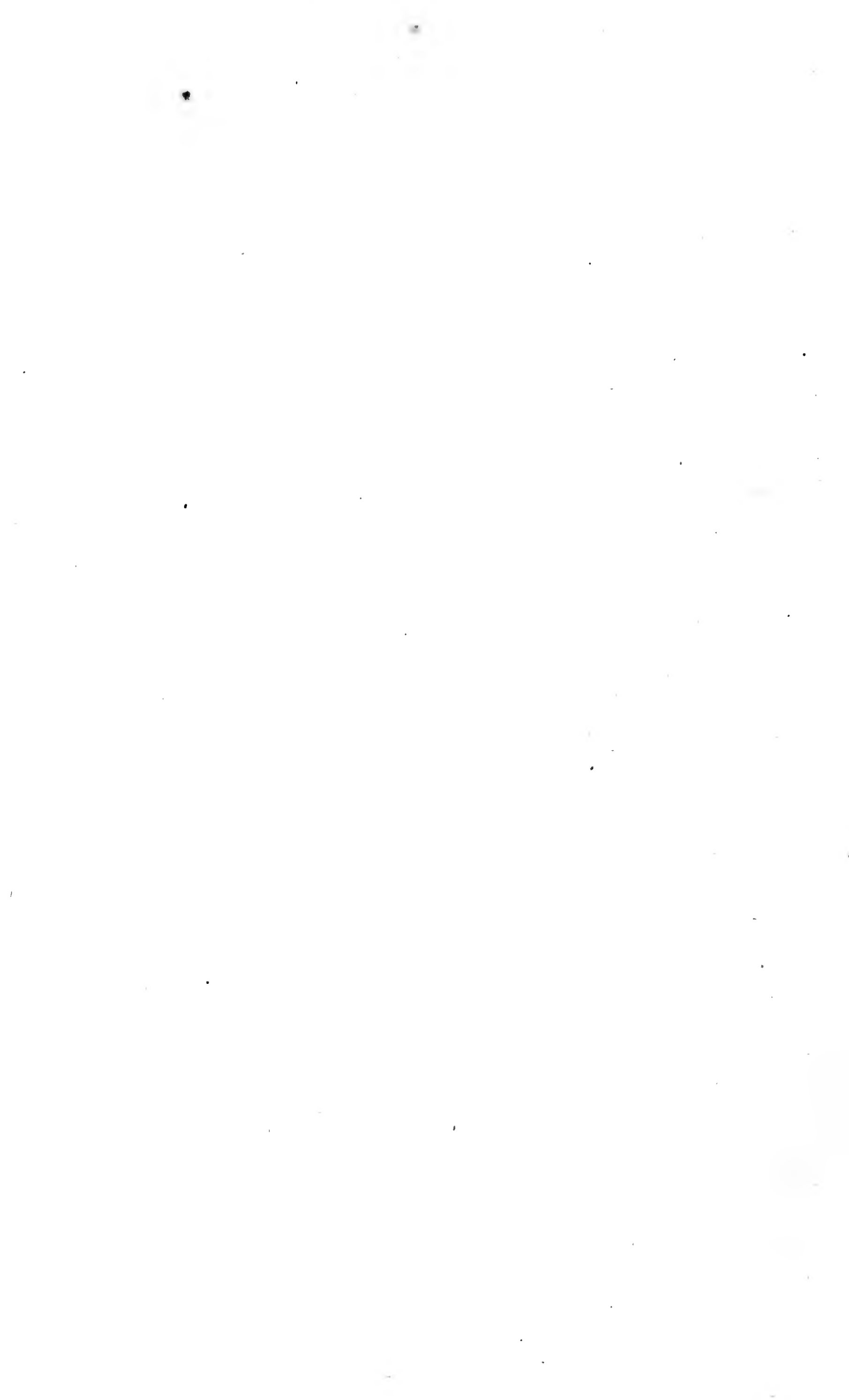


Musket Rest, at Warwick Castle; also Shot fired against Warwick Castle by the Royalists, during the War of the Commonwealth.



man, bearing his piece so as he may discharge it without stooping."[1]

The Duke of Albemarle, in his *Observations upon Military and Political Affairs*, printed in 1671, recommends the arming of musketeers and dragoons with muskets having swine's feathers, with the heads of rests fastened to them.

The size of the musket gave it a much longer range than other fire-arms; but if we consider the length of time requisite to load—Sismondi[2] says it required a quarter of an hour—and the weakness of the powder, it is no longer a matter of surprise that the use of the bow was so long preferred, and that the adoption of fire-arms was so tardy.

The musketeer, besides his unwieldy weapon, carried his coarse powder for loading in a flask, his fine powder for priming in a touch-box, his bullets in a leathern bag, the strings of which he had to withdraw to get at them, while in his hand was his burning match and his rest; and when he had fired, he was comparatively defenceless, if attacked. In fact, it required a strong man for the place; and therefore Markham says, in the selection of men for particular arms, "the squarest and broadest will be fit to carry musquets;" and Sir J. Smythe remarks that "it doth behove musquettiers to be strong and puissant of

(1) *The Souldier's Accidence*, p. 3.—There is a representation of a French musketeer of the time of Henri III. of France in Montfaucon's *Monarchie Françoise*.

(2) Tom. ix. 341.—Also W. Neate, in *The Double-armed Man* (1625), says, "Every archer may shoot six arrows within the time of charging one."

body, without sicknes, achs, or other impediments." (p. 25.)

Bandoleers.

Bandoleers were shortly afterwards adopted—a contrivance apparently originated by the Walloons, consisting of a belt of leather worn over the left shoulder, on which were suspended little metal, wooden, leather, or horn cylinders, each containing one charge.(1)

Plate XXIX.—This group shows the arrangement of the cords, rings, bullet-bag, and primer. (See also the illustrations in De Gheyn, A.D. 1618.)

Musketeers, according to Markham, were to have "good combe-caps upon their heads"(2), bandoleers of broad leather across their shoulders, also swords, girdles, hangers, or bautricks, and bullet-bags, in which they shall carry their moulds, bullets, worms, screws, rammers, and priming-iron.

"Also they shall have good and sufficient musquets, of true size and bore, with clean barrels, and straight scouring-sticks, headed at the one end with rammers of horn, suitable to the bore of the piece, and at the other with boxes of iron, in which to

(1) "And therefore those souldiers which in our time have beene for the most part levied in the lowe countries, especially those of Artoyes and Henault, called by the generall name of Wallownes, have used to hang about their neckes, upon a baudrick or border, or at their girdles, certain pipes which they call charges, of copper and tin made with covers, which they thinke in skirmish to be the most readie way. But the Spaniard despising that order, doth altogether use his flaske. The Frenchman both charge and flaske. But some of our English nation their pocket." (Davis's *Art of War*, p. 8.)—Bandoleers, with their appendages, may be seen at the Tower, Rotunda, and Royal United Service Institution Museum.

(2) Iron helmets, with the seam raised like a cock's comb.

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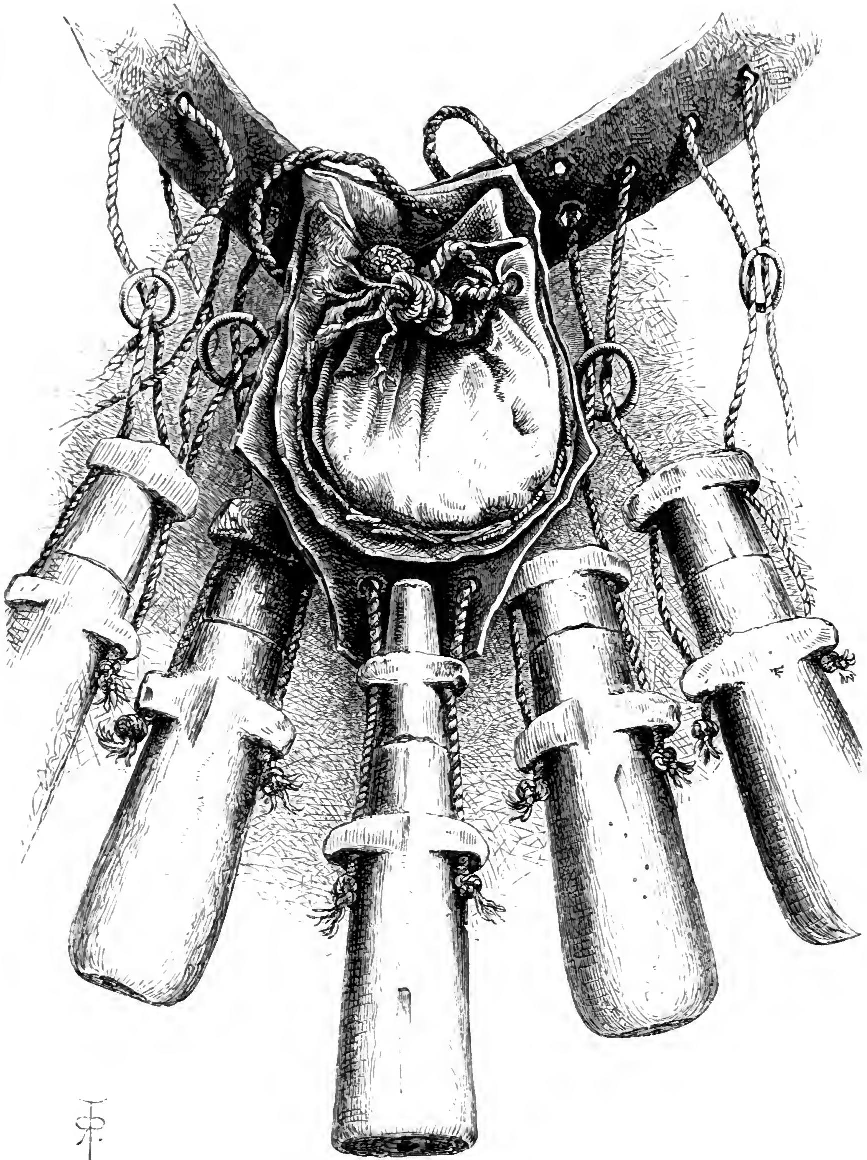

Bandoleers. This group shows the arrangement of the cords, rings, bullet-bag, and primer.

screw their worms, iron rammers, and the like. The cocks and trickers of the piece (for sears are not good)(1) shall be straight, and of very sound wood, either walnut-tree or beech."

Not only was the musketeer a heavily-weighted man, but his energies were further taxed by an amount of training to which the modern Manual and Platoon would be a mere joke. On this point see again Markham (p. 21):—

"As touching the postures which belong to the musquet, they are forty in number, and are to be done five standing, three marching, eighteen charging, and fourteen discharging; and are only for military instruction in the time of training, and to make the souldier most excellent and perfect.

"Three postures, or words of command, are to be used in the face of the enemy. These are—1. Make ready; 2. Present; 3. Give fire.

"The posture or words of command which are to be used in ordinary training or daily exercising of the souldiers, are these:—

"First five to be performed standing, that is to say —Put on your arms; prepare your skirmish; rest your musquet; your sentinel posture; your saluting posture.

"The postures to be performed in marching are—Shoulder your musquet, and carry your rest in the right hand; level your musquet; slope your musquet.

"The postures to be performed in charging are—Clear your pan; prime your pan; shut your pan;

(1) Sears are the pieces against which the trigger presses, and, drawing it out of the bents of the tumbler, releases the cock.

cast off your loose corns; blow your pan; cast about y^{r} musquet with both y^{r} hands, and trail your rest; open your charges; charge your musquet with powder; draw out your scouring-stick; shorten your stick; ram in your powder; draw out your stick; charge with bullet; ram in your bullet; draw out your stick; shorten your stick and put it up; bring y^{r} musquet forward with y^{r} left hand; hold it up with y^{r} right hand, and recover y^{r} rest.

"The postures which are to be performed in discharging are:—Carry y^{r} rest in y^{r} left hand, preparing to give fire; slope your musquet, and let the rest sink; in the right hand, poise your musquet; in the left hand carry y^{r} musquet with the rest; in the right hand take your match between the 2^{d} finger and the thumb; hold the match fast and blow it; cock your match; try your match; guard the pan and blow your match; open your pan; present your musquet; give fire; dismount your musquet, and carry it with the rest; uncock your match, and put it up between your fingers."

And after all this trouble, "Observe," says Sir Thomas Kellie (*Pallas Armata*), "that all this multitude of postures in service are redacted to three: make readie, present, and give fire."

Plate XXX.—Matchlock of the late form. *Temp.* William III.

It will be remarked that the "scouring-stick" was also the ramrod.[1] Sir J. Smythe (p. 136) recom-

[1] Wooden ramrods were used in the British army till 1752. (See Mackinnon's *Coldstream Guards*, p. 393.)

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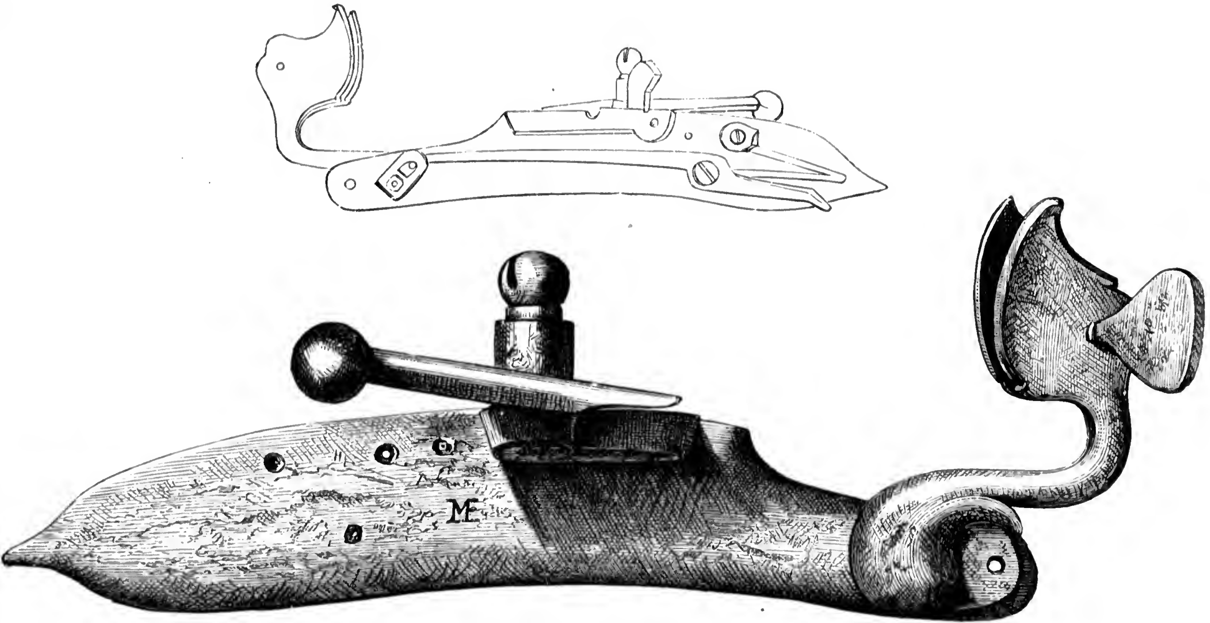
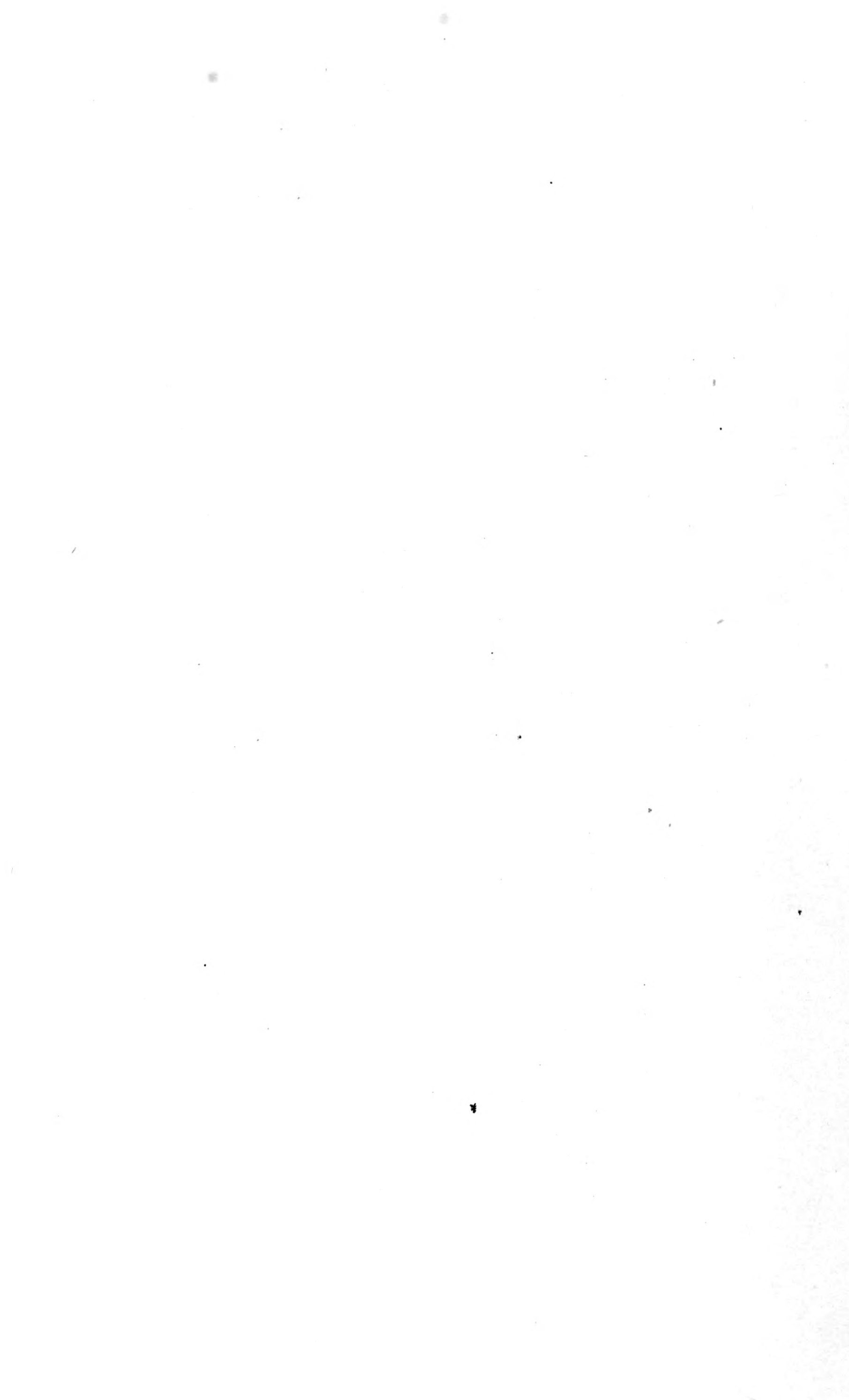


Matchlock of the time of William III.



mends that "their scouring-sticks should be thrust close to the powder to restrain the same," and that musketeers should hold their pieces high, lest the bullets should drop out, and so nothing but powder be discharged against the enemy. He was no friend to this arm, and although he admits that "a musket ranforced and well charged with good powder, would carry a full bullet poynt and blancke twenty-four or thirty scores" (yards), still he would not doubt to adventure his life with 8,000 archers against 20,000 of the best harquebusiers and musketeers in Christendom. We can hardly guess what might have been the staunch old knight's opinion had the Minié rifle, the successor of the musket, sighted to kill at 1,000 yards, been invented in his day!

A curious volume in Dutch was published by command of Maurice, Prince of Nassau, the designs by Jacob de Gheyn. This volume was translated into English, and re-published with the original plates, under the title of *The Exercise of Armes, for Calivers, Muskettes, and Pikes; after the ordre of his Excellence Maurits, Prince of Orange, &c.* There is also a handsome quarto volume, published at Amsterdam in 1608, entitled *Maniement des Armes, Arquebuse, Musquet et Pique*, par L. G. Bergan, A.D.C. au Prince Maurice de Nassau. The engravings, beautifully executed by Fragonart, give all the "postures" of the match-lock musket exercise. These are copied in a smaller scale in the *Art of Training*, Lond., 1622.

The citizens of Norwich, in 1588, paid—"For xi.

Englishe musketts, at xxvii*s*. a piece, with the Rest, Flask, and toucheboxes."[1]

In an estimate for a royal army in 1620, a musket with bandoleers and rest is valued at £1 0s. 8d.; and by the Council of War in the 7th Charles I. (1632), the following items are priced as follows: [2]—

	s.	d.
For a new musquet with mould, worm and scowrer .	15	6
For a musquet-rest	0	10
For a new bandelier with twelve charges, a primer, a priming-wire, a bullet-bag, and a strap, or belt, of two inches in breadth	2	6

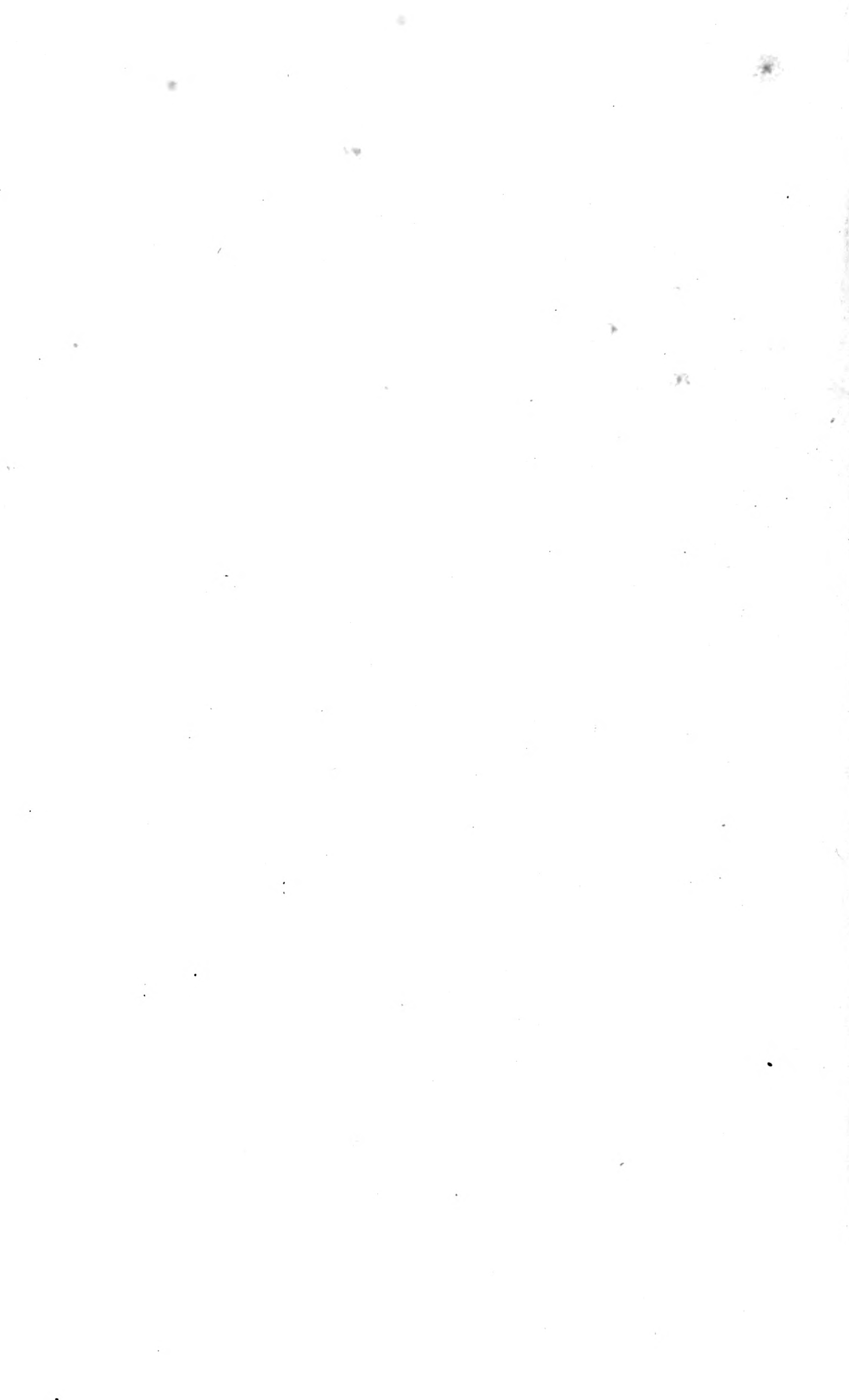
PLATE XXXI.—"Club your Firelock," from *Manual Exercise of the Foot Guards*, drawn by an Officer long experienced in the military description, now under his Royal Highness the Duke of Cumberland. London, 1745.

The WHEEL-LOCK was a contrivance said to have been invented at Nuremberg,[3] and intended to obviate the manifest inconvenience attendant upon the match-lock. One may easily imagine the multiplied disadvantages for the poor musketeer, when he was dependent on a coil of hempen rope, which he was obliged to keep lighted the whole time of duty; the danger to himself rather than to his enemy of its constant propinquity to the powder; and the almost impossibility of avoiding detection at night, if concealment of his position were an object. The first attempt to overcome this difficulty—or, at all events,

(1) *Norfolk Archæology*, i. 11.
(2) Rymer, xix. 314.
(3) See Beckmann (*Hist. of Inventions*), and Hefner (*Trachten*).

No. 31.

"Club your Firelock." (*Manual Exercise of the Foot Guards,* A.D. 1745.)



one of the earliest—is probably to be found in the Arsenal at Dresden,(1) where there is an old *büchse* furnished with a piece of pyrites (a mineral substance, a natural combination of iron and sulphur) fixed opposite the touch-hole, which requires to be rubbed with a file, chained to it, until sparks are elicited sufficient to fire the powder; this led to the wheel-lock. The mechanism was simple enough. It consisted of a small grooved wheel of steel, to the axis of which a chain and strong spring was attached; this was wound up or spanned, as the term was, with an instrument called a spanner, after the manner of a watch-key. A piece of pyrites was screwed into the *cock-head.* When the trigger was pulled, the wheel became disengaged, and spinning round in contact with the pyrites, the sparks emitted by the friction fired the charge. Sir S. Meyrick gives a more elaborate description of this contrivance. (2)

These locks, however, frequently missed fire, and the pyrites being of a friable nature often broke, so that the match was usually retained to be ready for use if required, or *two* fire-stones were provided, one fixed on each side of the wheel. This double kind of lock is attributed by the French as the invention of Vauban. "Feu Monsieur de Vauban," says Daniel, "imagina encore une espèce de Fusil-Mousquet, ou Mousquet-Fusil, qui a un chien et une batterie comme les Fusils, laquelle batterie se découvre pour recevoir le

(1) Wilkinson's *Engines of War*, p. 64.

(2) *Archæologia*, vol. xxii., p. 75.—See also Daniel, *Mil. Franc.*, i., liv. vi., ch. v.

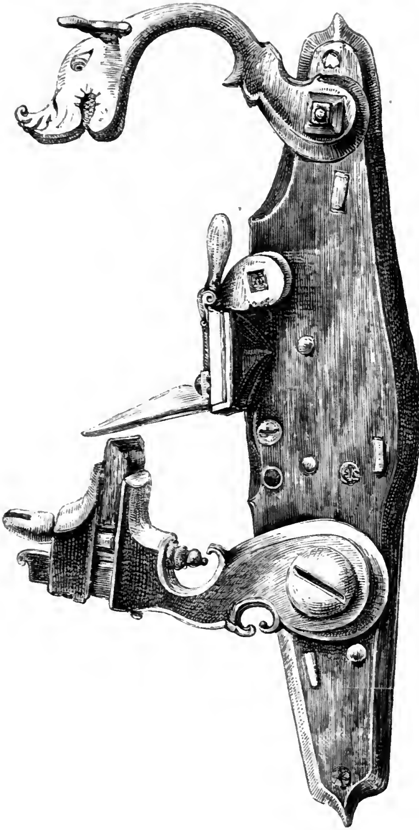
feu de la méche, qui peut être compassée et mise au chien ou serpentin, placé à l'autre extremité de la platine pour s'en servir en cas que la chien portant la pierre, *vint à manquer.*" (*Mil. Franc.*, i., liv. vi., ch. v.) St. Remy in his *Mémoires d'Artillerie* (Paris, 1702), gives a description and engravings of the arm, the "fusil-mousquet ou mousquet-fusil," as he calls it, "inventé par Monsieur de Vauban."

But the catalogue of the "Musée de l'Artillerie" at Paris is more precise. Under No. 1,821, we find: "Fusil-mousquet de Vauban, qui, au mécanisme ordinaire de la platine à batterie, réunit le serpentin pour la mèche. A la bataille de Steinkerque (1692) les Français jetèrent spontanément leurs mousquets pour se servir des fusils pris aux ennemis. Ce fut alors que Vauban imagina son fusil-mousquet, dans laquelle la mèche sert au défaut de la batterie."

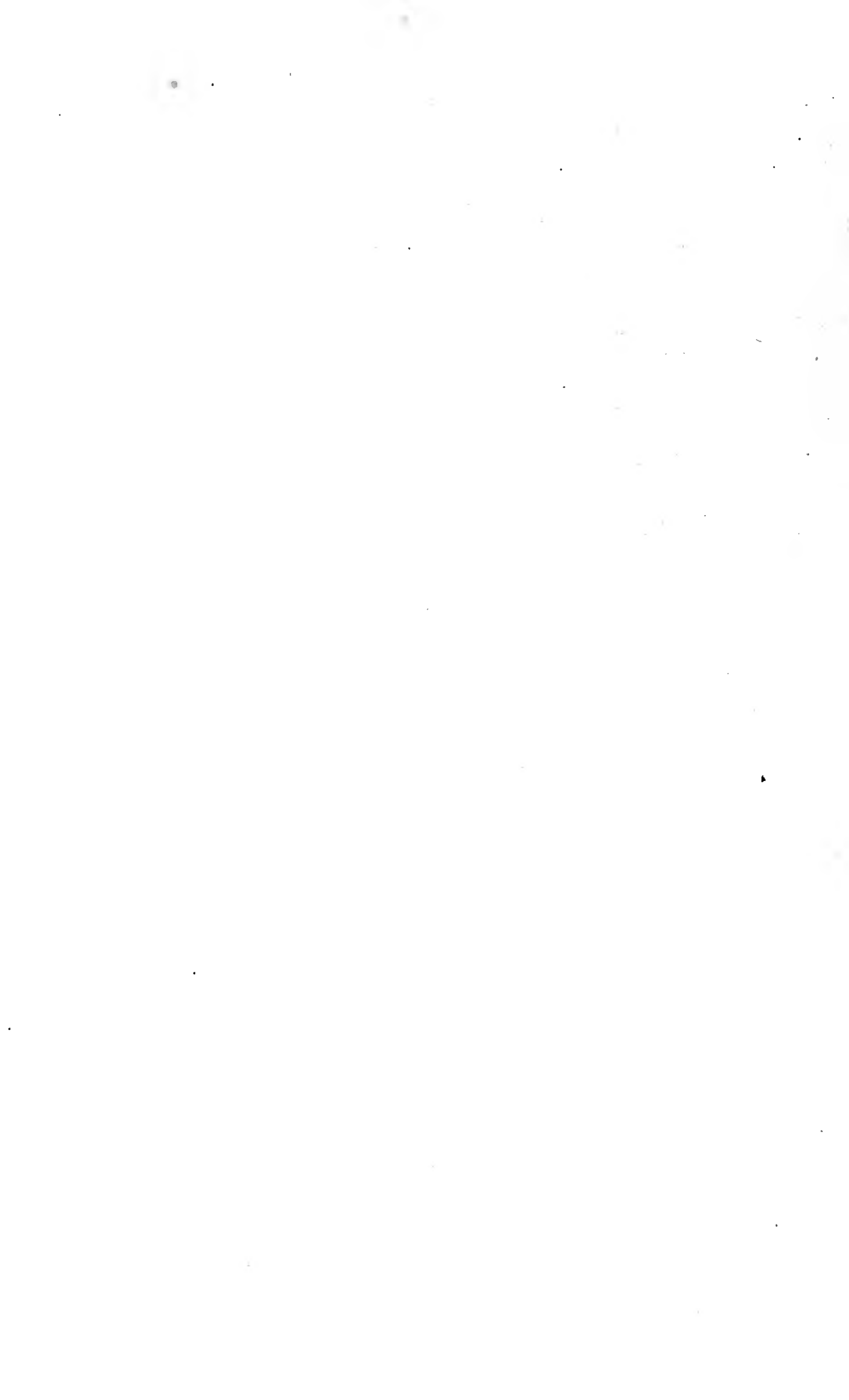
A Vauban Lock, so called, is represented on Plate XXXII.

Vauban's claim to this invention would probably have remained undisputed to this day, had not a book of the above description been found among the old stores of the Tower, in 1861, bearing the cypher and crown of James II., and affirming the place of manufacture by the English name of Brooke on the lock-plate. The plan is ingenious, and the mechanism very simple. The object was to combine the action of a flint and steel, and a match cord. The cock is at one end, and a serpentine holding the match at the other; the steel with its pan-cover in the middle. The difficulty to be overcome was how to fire the

No. 32.



Vauban Lock.—Match and Flint combined. A.D. 1692.



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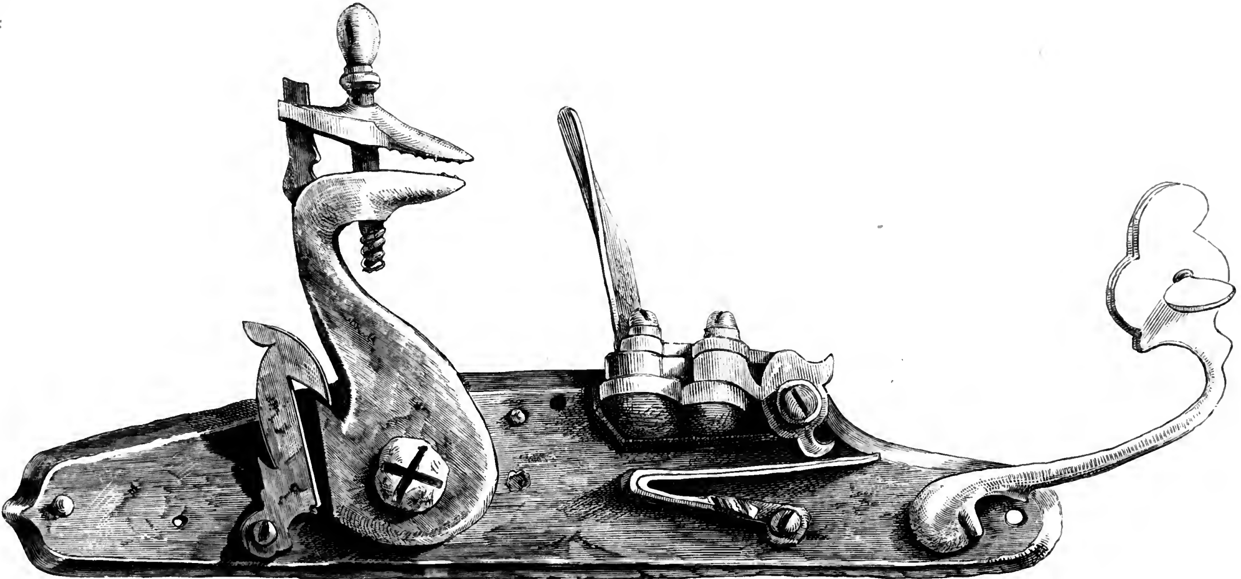
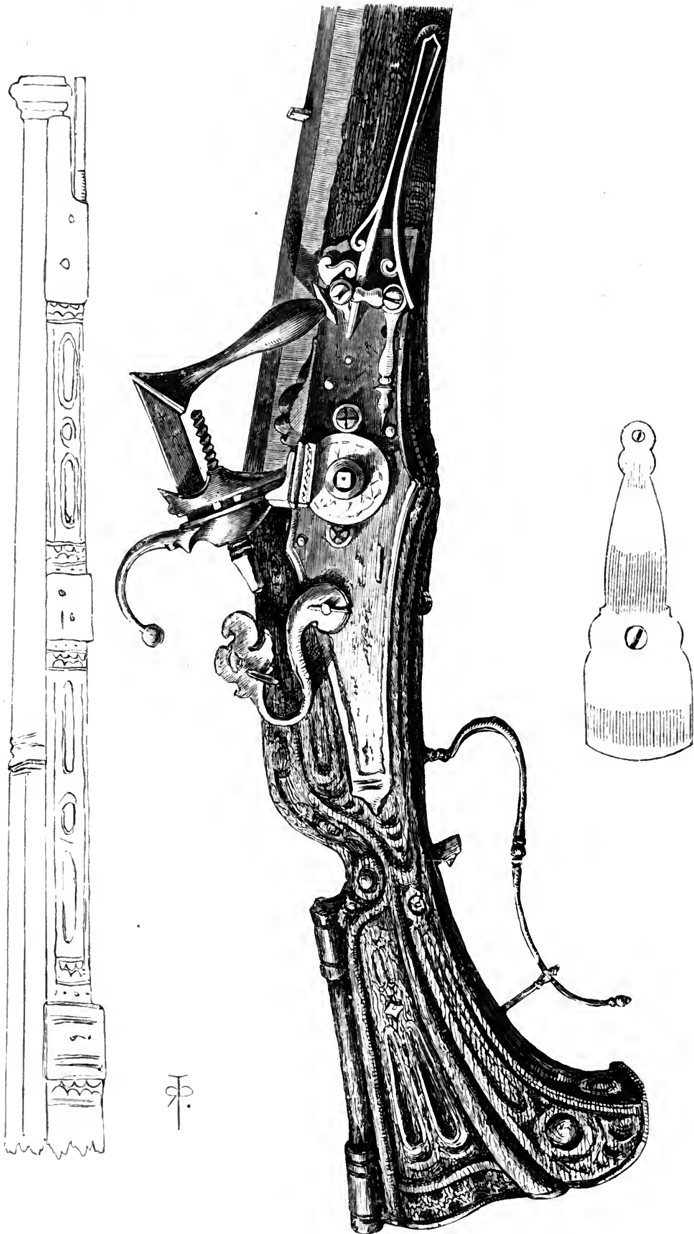


Dog Lock, so named from the catch at the back of the cock. This Specimen has been altered to combine the Match *à la Vauban* with it. (From the Tower.)

No. 34.



The Wheel and Match combined. *Cir.* 1620. (Specimen at Parham.)

No. 35.

Regulation Lock of the time of James II. (Tower Collection.)

charge with the match, inasmuch as the steel and pan-cover necessarily intervened. So the pan-cover was perforated, in order to admit of the match, when let down, passing at once through the opening to the powder; and that the burning match might not prematurely ignite the priming, a sliding lid was provided, which, so long as the flint was available, closed the opening of the pan-cover, and so shut off the powder from being accessible to the burning match.

Plate XXXIII.—Dog Lock; so named from the catch at the back of the cock. This specimen has been altered to combine the match *à la* Vauban with it. (Tower Collection.)

Du Bellay says, that one of the first occasions on which the wheel-lock was used, was when the confederated troops of Leo X. and the Emperor Charles V. laid siege to Parma in 1521; but Hefner considers that it was common in Germany in 1512. There are, however, earlier instances than that.(1)

A fine specimen of the Wheel and Lock is preserved at Parham, date about 1620, and is engraved on Plate XXXIV. The combination of the two are, however, of rare occurrence, and tend to prove the prejudice always existing in changing from one system to another. It is remarkable that the following specimens of combined systems exist:—

Match and wheel . . }
Match and flint . . } combined in one lock.
Flint and percussion }

Plate XXXV.—Regulation Lock of the time

(1) A wheel-lock of 1509 is in Mr. Pritchett's collection.

of James II. Drawn from one in the Tower Collection.

The Tricker Lock was the adoption of what is now termed a hair-trigger, which was added to the former one, in order to procure a more instantaneous discharge.

The Snaphaunce is the early form of that process of ignition—the flint and steel lock—which has survived nearly 300 years, and specimens of which, although now becoming rare, may occasionally be met with in use, even at the present day. It was a Dutch invention, as we may infer from the name:—

> "He that shall marry thee is matcht y faith
> To English rash, or to a Dutch *snap-haunce*
> You will strike fire with words."
>
> *Two Maids of Moreel, sign A.* 4. (Nares' *Gloss.*)

They are said to have been brought into use by marauders, whom the Dutch termed snap-haans, or poultry-stealers. The light from the burning match, which necessarily accompanied the match-lock, exposed them to detection, and the wheel-lock was an article too expensive for them to purchase, and also liable to get out of order; so this lock was devised, suggested, no doubt, by the wheel-lock. It consisted in the substitution of flint for pyrites, and a furrowed plate of steel in lieu of the wheel. When the trigger was pulled, it brought this jagged piece of steel in collision with the flint, which threw down its shower of sparks into the open pan, and lighted the priming. This improvement apparently took place about the close of the sixteenth century.

Lord Strafford, in one of his despatches from Ireland, in enumerating the arms possessed by some troops raised there, writes that "among 13,092 men" there were "7,226 swords, 8,083 pikes, 700 muskets, 384 calivers, 836 snaphances, 69 halberts, 11 lances," &c. (*Letters*, i., p. 199.)

"The principal weapons on horseback," says Markham, "are pistols, petronels, or dragons, and that all these are with fire-locks, and those fire-locks (for the most part) snap-hances, because the other are too curious and too soon distempered with an ignorant hand."

The flint subsequently superseded the pyrites. Sir James Turner, in *Military Essays written in* 1670 *and* 1671, recommends that the captain of arms of each company should keep a store of flint-locks to be clapt on by the gunsmith of the company. The Earl of Orrery also gives five reasons why he prefers the *fire*-lock, by which term he evidently means the *flint*-lock. This designation, at first applied to the wheel-lock(1) in contradistinction to the match-lock, was afterwards transferred to the flint-lock, and has continued to the present time.

Mr. Hewitt says (*Anc. Arm.*, iii. 710) that the earliest notice of a flint arm observed by him in this

(1) In "A Schedule containing the new Rates and Prices of the several Parts and whole Armes, both for Horse and Foot, &c., set down and established by the Rt. Honourable the Lords Committee of the Counsell of Warre," &c. (Rymer, *an.* 7 Charles I.), we read, "For a pair of *firelock* pistols furnished with a *key*, &c." (Copied in Grose, ii., p. 336.)

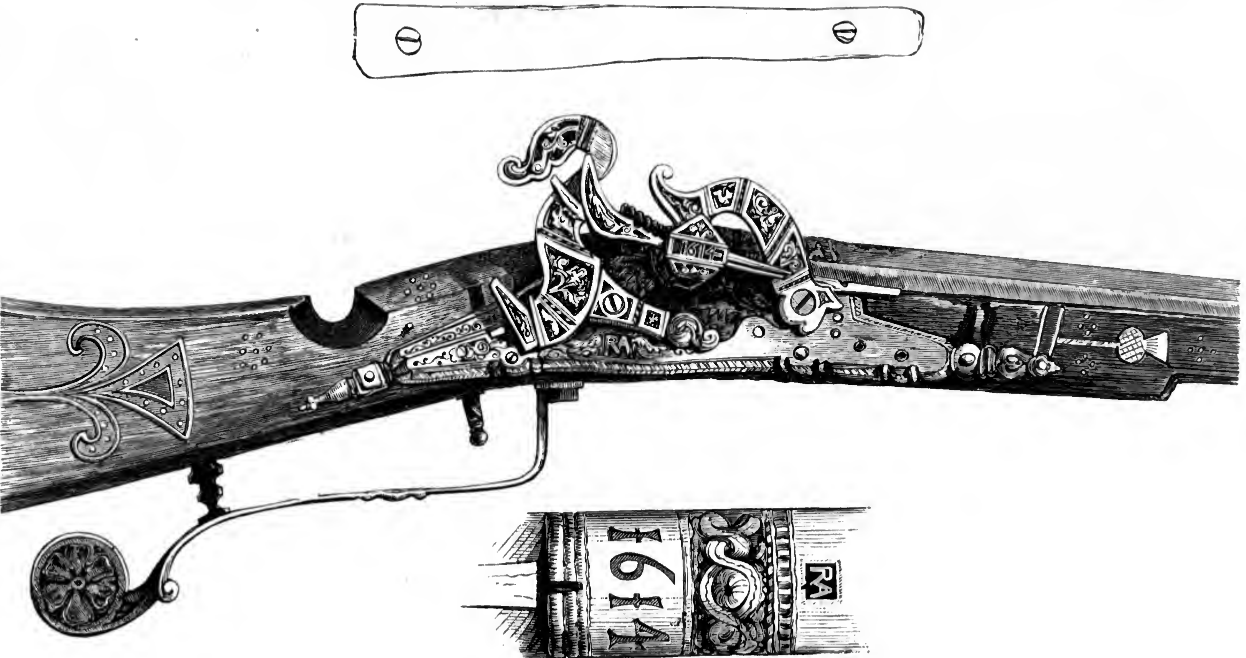
country is the record of a payment by the Chamberlain of Norwich in 1588 "tô Henry Radoe, smyth, for making one of the old pistolls with a snapphance and a new stock for it." (*Norfolk Archæol. Proceedings*, i. 16.)

A very early snap-hance is in the Tower Collection, $\frac{12}{79}$. It is a birding-piece of Prince Charles, afterwards King Charles I.; date 1614, engraved both on lock and barrel. The butt is remarkably thin; its full size is shown in Plate XXXVI. The length of the whole arm is 4 ft. 2 in., and consequently adapted for a youth of the Prince's age, viz., fourteen at the date above. The barrel is not rifled. Rifling barrels commenced about the end of the sixteenth century. A fine sporting wheel-lock rifle, beautifully mounted with inlaid stock, is in the possession of Her Majesty at Windsor. The earliest patent preserved in the Patent Office is dated 24th June, 1635, where the gunsmith undertakes "to rifle, cutt out, and screwe barrels, as wide, or as close, or as deepe, or as shallowe, as shalbe required, and with great ease." In Sir Hugh Plat's *Jewel-house of Art and Nature*, 1653 (1st edit. 1594,) the 17th article runs thus:—

"*How to make a Pistol, whose Barrel is 2 Foot in length, to deliver a Bullet point blank at Eightscore.*

"A pistol of the aforesaid length, and being of the petronel bore, or a bore higher, having eight gutters somewhat deep in the inside of the barrel, and the bullet a thought bigger than the bore, and

No. 36.



Birding-piece of Prince Charles, son of James I., 1614. (Tower Collection.)

so rammed in at the first three or four inches at the least, and after driven down with the scouring-stick, will deliver his bullet at such a distance. This I had of an English gentleman of good note for an improved experiment."

The CALIVER was a kind of short musket or harquebus, fired by a match-lock, and from its lightness did not require a rest.

"Put me a caliver in Wart's hands," says Falstaff, reviewing his recruits, meaning thereby that Wart, who was a weak, undersized fellow, was not capable of managing a heavier weapon. It was sometimes called *arquebuse de calibré*, and was, in fact, an arquebus of specified bore, having derived its name from the corruption of calibre into caliver. "I remember," writes Edmund York, an officer who had served in the Netherlands, and was appointed by the Privy Council to report on the best mode of organising the militia of London in expectation of the Spanish invasion, "when I was first brought up in Piemount, in the Countie of Brisack's Regiment of the old Bandes, we had our particular Calibre of Harquebuze to our Regiment, both that for one Bullett should serve all the Harquebuses of our Regiment, as for that our Collonell would not be deceaved of his Armes; Of which worde Calibre, came first that unapt term we used to call a harquebuze a calliver, which is the height of the bullett, and not of the piece. Before the battell of Mountgunter (*Moncontour*, A.D. 1569) the Prynces of the Religion caused seven thousand harquebuzes to be made, all

of one calibre, which were called *Harquebuze du Calibre de Monsieur le Prince.* So as, I think, some man not understanding French brought hither the name of the height of the bullet of the piece: Which worde Calibre is yet contynued with our good Cannoniers."(1)

A contemporary military writer, Sir John Smythe, gives his opinion that the term was derived from "the height of the bullet"—*i.e.*, the bore. He says, "the caliver is only a harquebuse; savinge, that it is of greater circuite, or bullet, than the other is of; wherefore the Frenchman doth call it a *peece de calibre*, which is as much as to saie, a piece of bigger circuite.(2) I would that all harquebuses throughout the field should be of one caliver and height, to the intent that every soldier on the lack of bullets might use his fellows' bullets."

Of two specimens in the Tower Collection, of a caliver and a musket of the sixteenth century, procured from Penshurst Place, Kent, the length of the former is 4 ft. 10 in., the latter 5 ft. 5¼ in. Their numbers in Mr. Hewitt's official *Tower Catalogue* are $\frac{12}{10}$ and $\frac{12}{11}$. They are both figured in the *Archæological Journal*, vol. x., p. 67.

Notwithstanding the "bigger circuite," the musket was considered twice as efficient in its effects, as has been already stated,(3) and Sir Roger Williams cor-

(1) See the Report in Maitland's *Hist. of London*, p. 594.
(2) *An Answer to the Opinion of Captain Barwicke.* (Harl. MSS., No. 4,685.)
(3) See MUSKET, *ante*, p. 271.

roborates the fact, admitting the advantage possessed by the caliver of being more rapidly discharged. "The calivers may say they will discharge two shot for one, but cannot denie that one musket-shot doth more hurt than two calivers' shot." (1)

In the *Lancashire Lieutenancy* is preserved the price of the caliver and its appendages, and the equipment of the bearer, in 1574:—"Everie Caliũ his peece, flaxe & touche-box xiiij[s]; his morion vij[s] viij[d], sworde & dagger vij[s], his hose viij[s], his showes ij[s], his shirtt iiij[s], his dublett iiij[s], his coate xij[s] iiij[d], money in his purse xxvj[s] viii[d.]" (2)

For some unexplained reason, the price of a caliver, which, with flask and touch-box, was charged only 14s. in 1574, in 1576 cost 24s. :—

"Itm̃ a Calliũ . . . . xxiiij[s]." (3)

In 1581, we find the charges for "A Shoot:— Caliũ, flaxe, tuche boxe & scorier xvj;" (4) and "In a Schedule of such rates of money as armor may be provided for at the Cyttie of Chester, for such souldiors as shall repaire thither out of the County of Lancaster. The Caliver furnished with Flaske & Touch box, Laces and Moulds, xiij[s] vj[d.]" (5)

In 1620, a caliver, with bandoleers, is valued at 14s. 10d. (6) According to a passage in Brantôme, it would appear that the Spaniards originated this improvement in fire-arms, "la façon et l'usage des

(1) *Brief Discourse of War*, 1590.
(2) p. 64.
(3) *Ibid.*, 78.
(4) *Ibid.*, 121.
(5) Peck's *Desid. Cur.*
(6) Harl. MSS., No. 5,109.

belles harquebuzes de calibre;" (1) and that it was introduced by Philippe Strozzi into the French infantry, under Charles IX., but it was evidently not adopted by the English troops till several years afterwards.

The Flask.

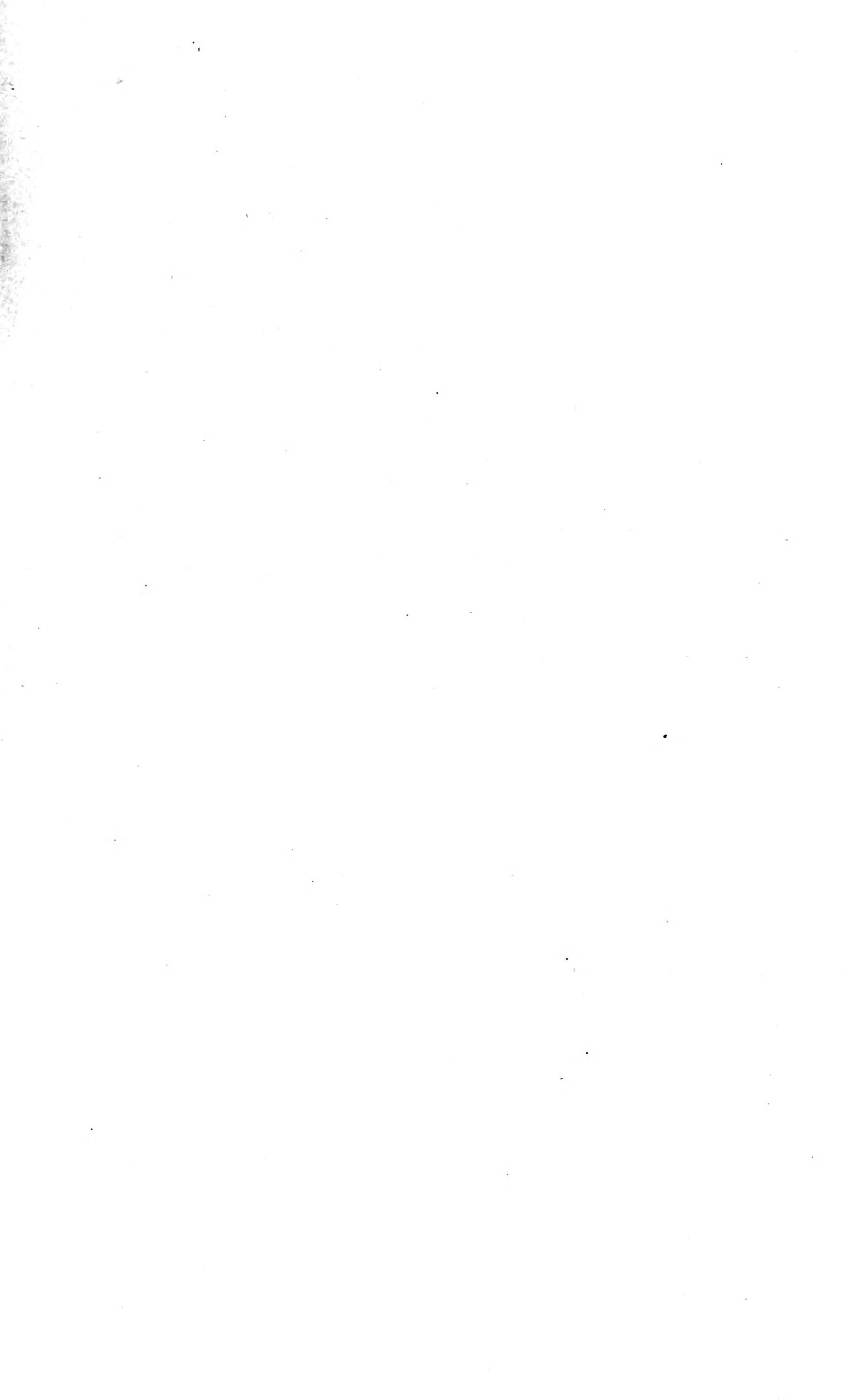
The flask, or, as it was sometimes spelt flaxe (from Ger. *flasche*, Dan. *flaske*, Sax. *flaxa*), and sometimes called flaxe-box, was the large flask containing the powder for loading. "Serpentine-powder," in 1559, was 8d. per lb., and "Corne-powder" 10d. per lb. In 1584, powder for calivers was 1s. 4d. per lb.; lead, for bullets, 2d. per lb. (2) The touch-box was the small flask for the fine powder for priming, which was mealed, as being more readily ignited by the match, and called serpentine powder, in several accounts of stores in the time of Edward VI. and Elizabeth; the other for the charge in the barrel was corned or granulated. "His flaske and touch-box must keepe his powder, his purse and mouth his bullets," (3) writes Edward Davies, speaking of the musketeer. The author afterwards gives some recom-

(1) *Œuvres*, tom. vii., pp. 425-429.

(2) *Lanc. Lieutenancy*, p. 145.

(3) *England's Trainings*, 1619, p. 4.—The purse was a little bag worn on the right side usually. When about to load, the firearm-man withdrew a bullet from the purse, and held it "in a readiness" in his mouth. This being his proper *status*, it was made a point of honour that troops who had capitulated should march out with the honours of war, namely, with "lighted match, *bullet in mouth*, drums beating," &c. (See Rushworth, vol. ii., pt. iii., p. 266.)

Davila mentions that the conditions granted at the taking of Cambrai, in 1595, were, "that the soldiers of whatever nation might march out, their cornets and colours flying, match lighted, and bullet in the mouth."



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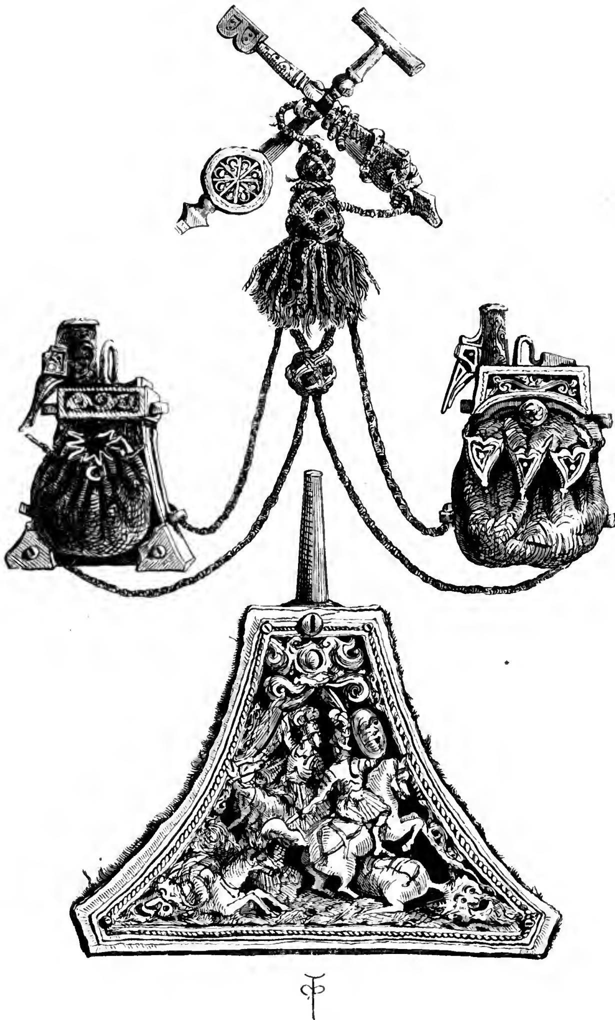


Powder Flasks and Spanners crossed above. The lower flask is of the form used by the Infantry in about 1590. Those on the right and left combine the bullet bag with the flask, and have their original cords and tassel; probably used by an officer of Cavalry. (In the collection of A. J. Lewis, Esq., Kensington.)

mendations as to the preparation of gunpowder. "One of the greatest helpes," says he, "consists in pouder and match: for a souldier must ever buy his pouder sharpe in taste, well incorporate with saltpeter, and not full of coole-dust. Let him accustome to drie his pouder, if he can in the sunne, first sprinkled over with aqua vitæ, or strong claret wine. Let him make his touch-pouder, being finely sarsed and sifted, with quick-pale, which is to be bought at the pouder-makers or apothecaries: and let his match be boiled in ashes-lye and pouder, that it will both burne well, carrie a long coale, and that will not breake off with the touch of your finger. The preparations will at the first touch give fire, and procure a violent, speedy, and thundering discharge. Some use brimstone, finely-poudered in their touch-pouder, but that furs and stops up breech and tutch-hole."

Laces and Scorier.

"Laces" were the strings for suspending the flasks, and were usually coloured red. The "scorier" was the scouring stick, which, Davies writes, "must be trimmed on the end with a linen cloth of sufficient substance, therewith to make cleane the cannon of his peece within." (p. 4.)

Plate XXXVII.—Powder Flasks and Spanners crossed above. The lower flask is often found used by infantry in the sixteenth century. Those on the right and left combine the bullet bag with the flask, and have their original cords and tassels, and perhaps were used by an officer of cavalry. (In the Collection of Arthur J. Lewis, Esq., Kensington.)

Fusil.

The Fusil was a successor to the musket, and

from its name we may presume a French invention. It was shorter and of less calibre than the musket, consequently a handier weapon, but not so effective. It was also fitted with a flint lock. Daniel says the change from the musket to the fusil was effected in the French army in 1699 and 1700. (1) It was, however, invented several years before this. M. de Puységur in his *Mémoires*, writing of the year 1647, says, "Les bouts (des bayonnettes) étoient propres à mettre dans les canons des *fusils*." (ii., p. 306.) In enumerating the advantages and disadvantages of the two weapons, he says the musket never missed fire, inasmuch as its match communicated directly with the priming in the pan; but the fusil sometimes failed, either by default of the flint, or from the damp of the atmosphere. Then, again, the musket was the heavier, and incommoded the soldier, and could not be so quickly discharged, and the burning match at night often attracted the attention of the enemy when concealment was desirable. The musket was fired from the breast, the fusil from the shoulder. Daniel (tom. ii., liv. xiii.) believes that the first corps which was armed with the new arm in France was the regiment of Fusiliers raised in 1671, and subsequently converted into the regiment of Royal Artillery; but in the *Études d'Artillerie*, we are told there was a regiment of Fusiliers in 1646. (Tom. i., liv. i., ch. iv., p. 346.) The first regiment of English Fusiliers (now 7th Royal Fusiliers) was not raised until 1685, but we hear of

(1) Tom. ii., liv. xiii., p. 423.

Fusiliers in 1680, (1) and in a Manual for the English troops, published by royal command in 1682, we find that the Dragoon of that day was armed with a fusil. The special duty for which the Fusilier troops was originally appointed was for the protection of the guns.(2) It was necessary, therefore, that they should be lightly armed and quick loaders. In addition to their fire-arms, they carried along with them, on the line of march, the component parts of chevaux de Frise, then called "turnpikes;" wherefore the fusils were provided with slings, so that the men could hang them over their backs, if they wished to have their hands disencumbered. There are two fusils, with stop to the cock, the locks engraved "I. R. II.," in the Tower, $\frac{12}{419 \& 420}$. The term *fusil* was for brevity pronounced *fusee,* which name it retained, and for the lighter fire-lock borne by all sergeants of infantry, after the suppression of halberts, until the issue of Enfield rifles in 1853. The Company officers of

(1) "Fusiliers are foot-soldiers, armed with fusees with slings to sling them. The first design of Fusiliers was to guard the artillery, for which end the regiment of English Fusiliers was first raised. To supply the want of pikes, and to secure themselves against horse, the fusiliers used to carry turn-pikes along with them, which, in a camp, were placed along the front of a battalion, and, on a march, were carried by the soldiers, each carrying one of the short pikes, and two, by turns, the spar through which they were thrust, so that they were quickly put together." (*The Gentleman's Dictionary,* 1705.)

(2) "The fusils, or firelocks, which are at present used in the army, especially among the fusiliers and grenadiers, are all the same size, and carry as far as a musquet." (*English Mil. Discipline,* p. 17. B. Mus.)

"Foot on the English Establishment in the year 1680. Sir Charles Hero's Fusiliers in Jersey. Total 930." (*Hist. of Standing Armies in England.* Lond. MDCXCVIII.)

Fusilier regiments, and those of flank companies in all other infantry regiments, carried fusils after the discontinuance of spontons. See, on Plate XXXVIII., an officer of Norfolk Militia marching past with fusil and gorget, A.D. 1759. (From *Discipline composed for the Militia of the County of Norfolk.* London, 1759.)

Carbine.

The CARABINE or CARBINE was a sort of arquebus. The origin of the term is involved in much obscurity; it is discussed by several French authors, and variously attributed.(1). *Carabins* was the designation for a particular sort of light-horse in the French army, and we are told that the name first appeared in France in the reign of Henri III. (1576-89), and that it was derived from the Spaniards, who instituted this description of troops.(2) They were a corps of skirmishers, and were not regimented at first, but attached to the number of about fifty to a troop of *Chevaux-Legers.* De Montgommeri describes their arms as consisting of "une longue escopette de trois pieds and demi pour le moins and un pistolet." Their mode of attack was to advance within one or two hundred paces of the enemy, according to circumstances, to

(1) See Daniel, i., liv. iv., ch. iii., p. 232, edit. 1721.

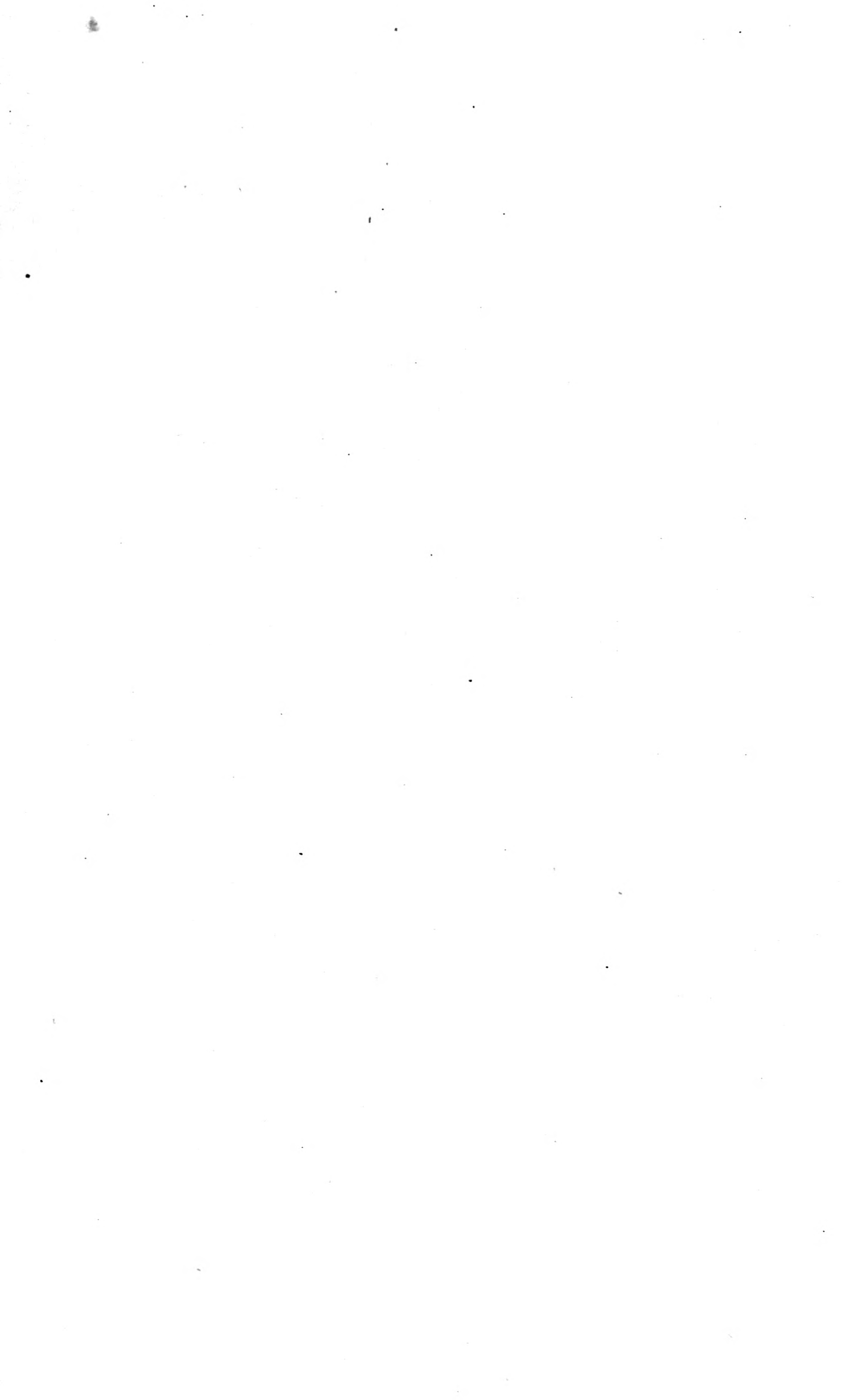
(2) M. de Montgommeri, quoted by Daniel, *ut supra.* He derives the term from *cara* (Span.), face, and *binus* (Lat.) double, *i.e.*, "à deux visages, à cause de leur manière de combattre, tantôt fuyant, tantôt tournant tête comme les Parthes."—That this sort of wild exercise was the current notion of the practice of these troops, will appear in a passage of one of Beaumont and Fletcher's old Plays:—

"Nay, I knew,
Howe'er he wheel'd about like a loose *carbine*,
He would charge home at length, like a brave gentleman."

Wit with Money, act v., sc. 1.

No. 38.

Officer of Norfolk Militia marching past with Fusil and Gorget. A.D. 1759.



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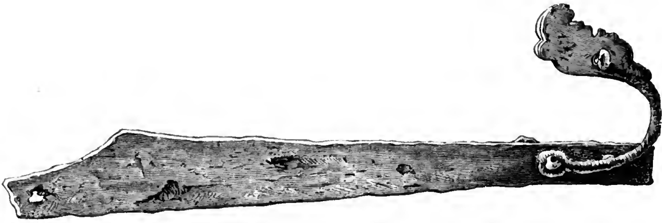
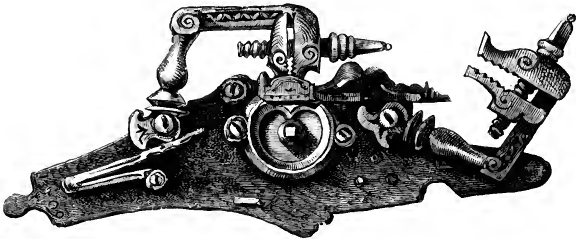
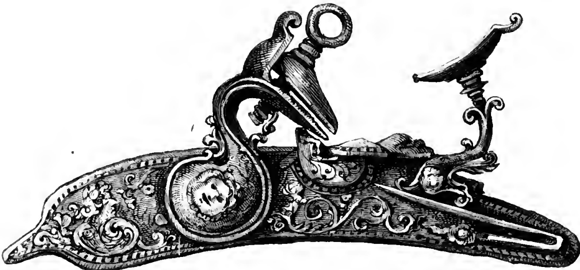






The long Lock is the early form of Match Lock.
The Wheel Lock, with two cocks, bearing the date of 1509 and the armourer's mark. The earliest known specimen.
The Snaphance at the top is of the time of Charles II., about 1660.
(These specimens are in possession of R. T. Pritchett, Esq.

fire by ranks, and then to fall back to the rear of their squadron. In 1643 they were formed into separate regiments, and suppressed in 1665. Under Henri IV. their arms consisted of a long *escopette* 3½ ft. long, and a pistol. De Bellon, who wrote in the reign of Louis XIII., says they carried a great wheel-lock arquebus of large calibre, a sword, and a short pistol.(1)

Although it is more consistent with analogy to suppose that the Carabineer was so named from his weapon, rather than the weapon from the Carabineer, yet we must accept this derivation for want of a better. At all events, it is certain there were *Carabins* in the service of France in the sixteenth century; and in the *Ordonnances* respecting them, their arms are not called by that name. See also *Études sur l'Artillerie*, tom. iv., l. ii., ch. x.

Plate XXXIX.—The long-lock is the early form of match-lock. The wheel-lock with two cocks is very remarkable, as bearing the date of 1509, and the armourers' mark. This is the earliest known specimen, the first date assigned being about 1520. The snaphaunce at the top is of the time of Charles II., about 1660. These specimens are in the possession of Mr. Pritchett.

The distinctive feature of the carbine seems to have been its large bore. "The harquebuse differeth nothing from the carabine in length, but only in the bore," says Cruso (chap. xxx.). The following table

(1) *Des Principes de l'Art Militaire*, pt. i., p. 325, quoted by Daniel, *ut supra*.

will show the relative size of the carbine, the authorities for which are derived from the 7 Car. I., and Cruso, ch. xxiv. and xxx.

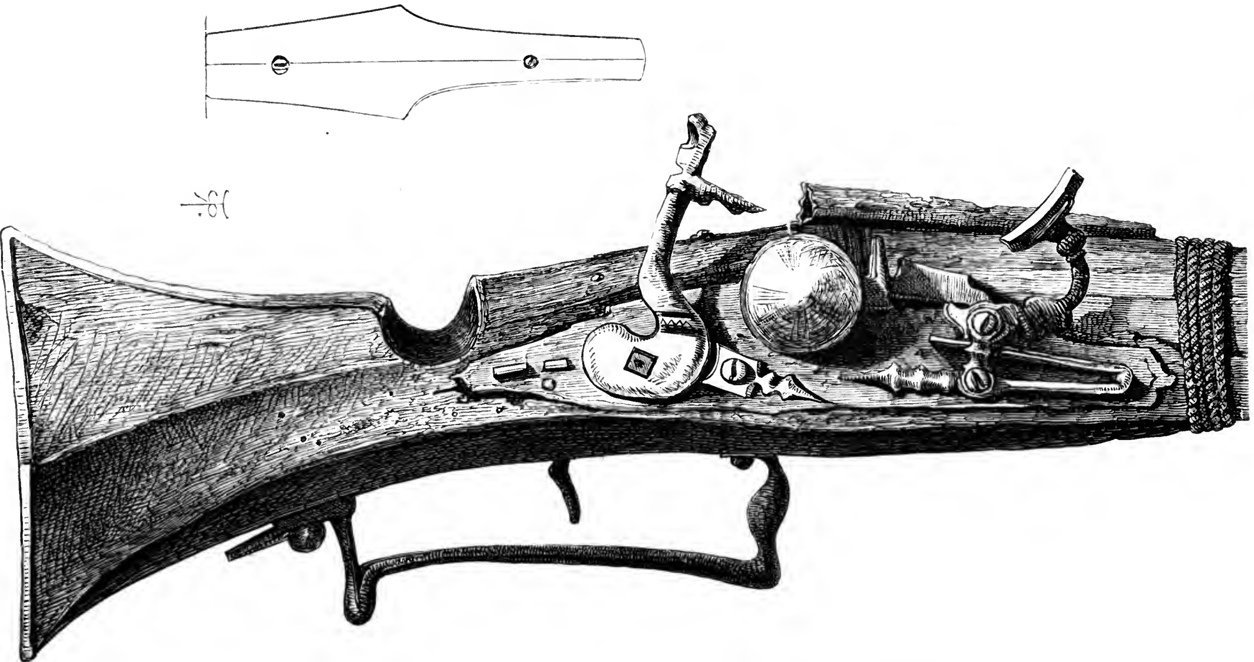
	Length of Barrel.	Number of Bullets to the Pound.	Nature of Lock.
Musquet . .	4 ft.	10	Match.
Harquebus .	2½ ft.	17	Wheel.
Carbine . .	2½ ft.	24	Snaphaunce.(1)

Grose (*Mil. Ant.*, i. 348) says that "towards the latter end of the reign of King James II. the cavalry were armed with carabines, which they fired on horseback." The introduction of them, however, must have occurred prior to that, as Sir J. Turner (*Pallas Armata*), who wrote in 1670 and 1671, says, "The carabiniers carry their carabines in bandoliers of leather about their neck, a far easier way than long ago, when they hung them at their saddles: some instead of carabines carry blunderbusses, which are hand-guns of a greater bore, wherein they may put several pistol or carabine balls, or small slugs of iron."

"Lay your hands on your carabines." Exercise of horse, in *Military Discipline*, published by His Majesty's command, 1686. (In the Library of Royal United Service Institution.)

Harte arrogates for his hero, Gustavus Adolphus, the merit of altering "the musquets of the cavalry to carbines." (*Hist.*, ii. 20.)

(1) "The carabines with us are for the most part Snap-hanes, and so something differing from the Firelock. I will set down the order of handling it." (Cruso, ch. xxx., p. 43.)



Snaphance Carabine, from Haddon Hall, Derbyshire. Date about 1635.

One regiment of British cavalry, the 6th Dragoon Guards, still retains the designation of "Carbiniers."

PLATE XL.—Snaphaunce Carabine, at Haddon Hall, Derbyshire. The upper part of the butt resembles that of Prince Charles's Birding-piece, 1614. This arm is about A.D. 1635.

Currier.

The CURRIER appears to have been a weapon chiefly used in sieges, but very little is said of it by military writers. Lord Wentworth mentions it in a despatch to Queen Mary respecting the siege of Calais,(1), and it is again noticed in the Earl of Essex's operations in Ireland, *temp.* Elizabeth.(2)

From the following passages in Sir John Smythe's animadversions on the writings of Captain Barwicke,(3) we gather that a currier was not of so great calibre as an arquebus, but had a longer barrel; "but yet in one thing," says he, "his lack of consideration is to be noted, and that is, that he doth make no distinction nor difference betwixt a currier and a harquebuss, in which he is greatly deceived, for in those there is as great or more difference betwixt a currier of war and a harquebuze *in the length of cannon*, and for shooting, as there is betwixt a harquebuze and a musquet." And again: "So likewise of a harquebus and a currier, both renforced backward as they ought to be, and of one caliver height of bullet; so the currier in respect of the great length must have a greater advantage

(1) "The enemies with their curriors, which assuredly shot very great bullets, and carry far." (State Papers, by the Earl of Hardwick, A.D. 1557-8.)

(2) Birch's *Memoirs of Queen Elizabeth.*

(3) Harl. MSS., No. 4,685, p. 35.

and quantity of powder to appulse and impulse the bullet to its farthest object-mark within point blank."

Among the stores enumerated in the Tower survey in 1559 is this item, "currion, 400;" and in a MS. of same date, we obtain the price regulated for purchase from the Tower stores—"the currier complete, 16s. 8d.;"(1) and in 1574 the price was exactly the same.(2)

Musquetoon.

The MUSQUETOON was a smaller sort of musket, not so long as the fusil, but differing from the carbine, from its being furnished with a fire-lock instead of a wheel-lock. "The English cavalry have for arms the shable, musketon, or carabin, or pistol." (*English Military Discipline*, 12mo, Lond., 1680, p. 134. B. Mus., $534\frac{c}{3}$.) (The shable was a short broadsword; the sheath, 2 feet 4 inches long, more used for cutting than thrusting. See the work just quoted, p. 12.) "The usual charge of a musqueton is an ounce of powder, and it is presented in the same manner as a fire-lock" (*i.e.*, from the shoulder). (*Ibid.*, sec. iii., p. 20.)

Pistol.

The PISTOL is said to have derived its name from Pistoia, in Tuscany, and, according to Sir James Turner,(3) was invented by Camillo Vitelli, when Henry VIII. reigned in England. According, however, to a quotation in the Prince Napoleon's *Études sur l'Artillerie* (tom. i., l. i., ch. iii.), the name was bestowed on this arm on account of its calibre

(1) *Archæologia*, xxxvii. 479.
(2) *Ibid.*, xxxv. 357.
(3) *Pallas Armata*, p. 173. 4to, Lond., 1683. (Brit. Mus., 8,825 f.)

being of the size of the piece of money of that name. "Les balles des arquebouses fort minces, plus assez que d'une pistolle." (Vigenère, *Artillerie au XVIe Siècle, p.* 7.) It is considered by Hefner to have been common in Germany in 1512 (pt. iii., pl. 71); and it was the characteristic arm of the Reiters. De la Nouë assigns to them the credit of having first brought it into use.(1)

The pistol was an arquebus in miniature, and fired by the wheel-lock. D'Avila, speaking of the Reiters, says, "Ils ont des pistolets d'environ deux palmes de long." Sir James Turner says, "The barrel of the pistol may be 2 feet long for the longest, 1 foot 6 inches for the shortest. The French use locks with half-bends, and so do, for the most part, the English and the Scots; the Germans, rore or wheel-locks." (p. 173.) The usual length of the military pistol in 1680 was "2½ feet, or thereabouts; the charge, 1 drachm of powder, and it would carry 40 paces, more or less." (*Mil. Dis.*, sec. iv., p. 30.) Cruso says the cuirassier "must have two cases with good firelock pistols hanging at his saddle, the barrell of 18 inches long, and the bore of 20 bullets in the pound (or 24 rowling in)."

Lord Herbert writes, "The pistol came this year (1544) first in request among the French horse;"(2) but from the Instructions of the Privy Council to the citizens of Norwich in 1584, we may infer that in this matter, as in others, the English were slow in

(1) *Discours Politiques et Militaires.* (1612.) 18^{ieme}, p. 308.
(2) *Hist. of the Reign of Henry VIII.*, p. 249.

adopting innovations: "Their honours think it expedyent that the light horseman shall *now rather bee* furnished with his *case* of pistolls."([1])

The breech-loading wheel-lock pistol on Plate XLI. is of the same construction as the fowling-piece of Henry VIII., the breech flying back when the catch at the end of the band is drawn back. Armourer's mark, H 5. The movable chamber is drawn at the side, and the stud shown is to extract it should it become jammed. The stock is inlaid with ivory. (*Penes* Mr. Pritchett.)

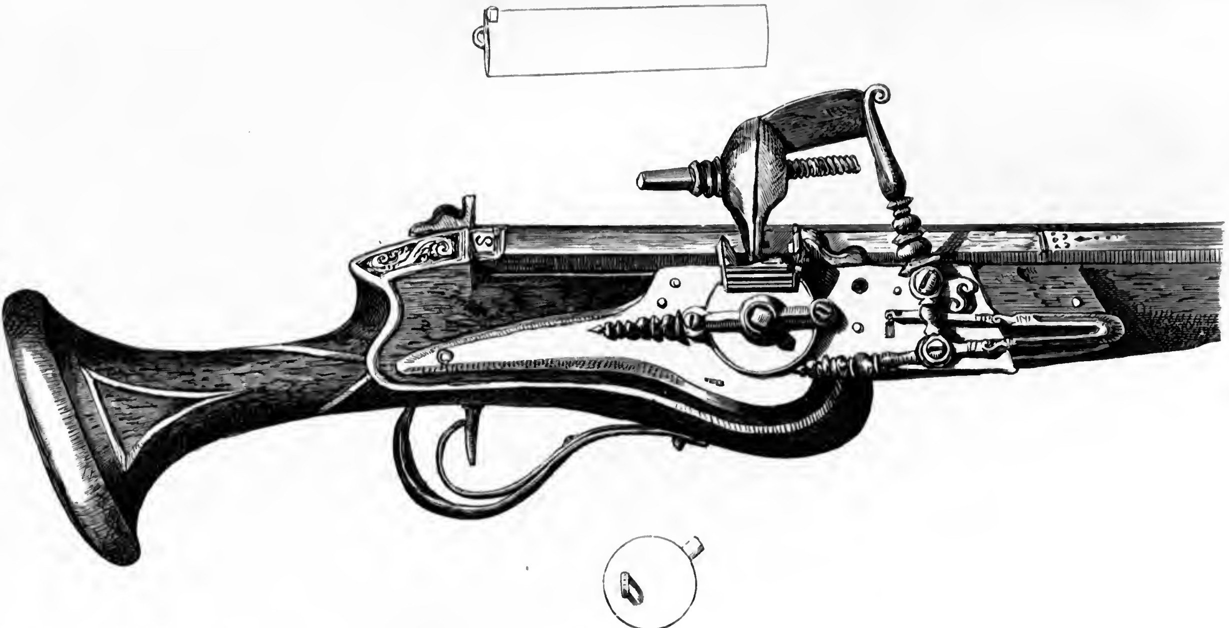
Sir Francis Vere, in speaking of the action at Turnhoult, in 1597, refers to the alteration of tactics in consequence of the introduction of this arm. The writer tells us that the pistoliers charged the enemy's pikemen, "not breaking through them at the first push, as it was anciently used by the men-of-arms with their barded horses, but as the long pistols, delivered at hand, had made the ranks thinne; so thereupon the rest of the horse got within them."

The manual exercise of the pistol is figured in several plates—which Grose has reproduced (*Mil. Ant.*, i. 348)—and amply detailed by Captain Cruso in his *Military Instructions for Cavalry*, published 1632.

Two pistols from the Tower Collection ($\frac{12}{80,\ 81}$) are drawn on Plate XLII. One with a straight iron stock, 12-inch barrel, date about 1630. The other, of similar date and construction, barrel 16-inch. "They are described as Highland Scotch pistols, but there is always some difficulty in assigning Scotch

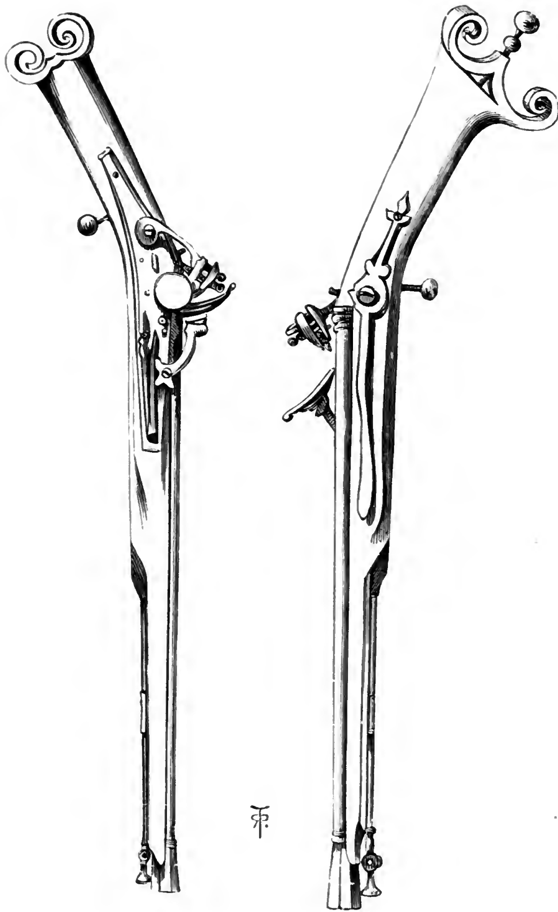
([1]) *Norfolk Archæology*, i. 22.

No. 41.



This Breech-loading Wheel-lock Pistol is of the same construction as the Fowling-piece of Henry VIII. Armourer's mark, H.S. The movable chamber is drawn at the side, and the stud shown is to extract it should it become jammed. The stock is inlaid with ivory. (In the possession of R. T. Pritchett, Esq.)

No. 42.



Snaphance Highland Pistol, with very straight stock, all iron. (Tower, $\frac{12}{80}$.) The second taken from a trophy in same collection. About A.D. 1630.

No. 43.

Dag taken from Zucchero's portrait of Robert Dudley, Earl of Leicester. The sketch at the back shows the relative proportion of the weapon to the human figure. (From Parham Collection.)

relics to their proper period, from the long retention by this people of fashions once established among them." (Note to Tower *Official Catalogue*, p. 74.)

The Dag. The DAG was a sort of pistol; probably the crooked stock of the former constituted the difference. No account appears of its etymology. Among the contraband articles shipped from Flanders in 1559, alluded to on p. 198, are "18,000 dagges at 16s. 8d." Flanders appears to have driven a considerable trade in these weapons. In the Survey of the Tower of London, *temp.* Elizabeth (*Archæol.*, xxxvii.), before quoted, in Sept. 1559, there were in store "3,500 daggs, to be provided in Flanders, 300." In 1584 the Privy Council ordered that "light horsemen's saddles should bee light, according to those of the Northern light horsemen, and yet suche as a case of daggs may be fastened to the pommell thereof." (*Norfolk Archæology*, vol. i., p. 23.)

The beautiful arm represented on Plate XLIII. is a Dag copied from Zucchero's portrait of Robert Dudley, Earl of Leicester, at Parham, Sussex. The sketch at the back is given to show the relative proportion of the weapon to the human figure.

Petronel. The PETRONEL was a short gun, answering to the modern carbine. Fauchet, the French antiquary, observes, "In the last twenty or thirty years, they have given the name of Petrinal to a weapon being a medium between the arquebus and pistol, but with a stronger and quicker spring (*rouet*)." (1) Nicot, who

(1) L. ii., *De la Milice & Armes;* quoted by Daniel, tom. i., l. vi., ch. v., edit. 1721.

was his cotemporary, in the reigns of Francis I. and Henri IV., describes this arm "as a sort of arquebus, shorter than a musquet, but of larger calibre; and carried suspended from a wide baldrick, worn across the shoulder like a scarf. It is rested on the breast when discharged, whence it derives its name *poitrinal* or *petrinal*."(1)

In the old play of *Love's Cure, or the Martial Maid*, its resemblance to the dag is strongly pointed at:—

> "What! do you call this a gun?—a dag?
> *Clara.* I'll give thee a French petronel." (Act ii., sc. 2.)

This indicates the country from whence the English received it, a fact corroborated by its name.

An Order of Council is preserved in the Harl. MSS. (No. 1,926, Art. 64, fol. 756), directed to all the Justices of Peace and quorum of Lancashire, in 1586, requiring them "to see the s[d] county furnished with Petronells (from which they had desired to be excused) before the 20th of the next Marche; it being advertysed, and that of Creadit, that Foraine Forces are made readdie in sundry places, to invade this realme."

Blunderbuss.

The Blunderbuss was much shorter than the old carbine, but had a much wider barrel. Sir James Turner says, "Some instead of carabines carry blunderbusses, which are short hand-guns of a great bore, wherein they may put several pistol or carabine balls, or small slugs of iron. I do believe the word is corrupted, for I guess it is a German term, and should

(1) *Dictionnaire.*—See Daniel, *ibid.*

be *Donnerbuchs*, and that is thundering guns; *Donner* signifying thunder, and *Buchs* a gun." (*Pallas Armata*, p. 173.)

The worthy knight was not far wrong in his supposition. Some remarks by a more modern hand, the able editor of *Notes and Queries*, give a more lucid exposition of the derivation of the term:—

"Although there is not etymological connection between the Dutch *donder* (thunder) and the English *blunder*, a reason may be assigned, irrespective of a similarity of sound, why the Dutch *donderbus* should in English be *blunderbuss*. We must begin by observing, that the old French verb *estonner* (now *étonner*), which is from the Latin *attonare*, and properly means 'frapper de la foudre,' in common parlance signified 'to stonnie, to benumme, or dull the senses of' (Cotgrave), in short, to stupify. It is next to be observed that the English verb *to blunder* appears to have been formerly used in a transitive sense, *to confuse, to make stupid;* so that the French *estonner*, though it formerly signified *to strike with a thunderbolt*, is rendered by Cotgrave *to blunder*. 'Tout ce que tonore ne nous estonne point: All that does thunder does not blunder us.' Hence it is easy to perceive why the Dutch *donderbus* (literally, thunder-barrel or thunder-tube) is with us *blunderbuss*. The blunderbuss goes off with such a tremendous bang, that we are stupified, 'stonnied,' thunderstruck; in short, it 'blunders us.' We may remark by way of illustration, that in Halliwell *blunder* has the meaning of confusion." (2 S. v., p. 396.)

The following extract is in corroboration of its Dutch origin:—

"Item, the 26th day in Augusto, 1413, sent with letters to Utrecht to Gerrit van Vruethen, the gun-master (*bussemeester*), ordering him to betake himself without delay to the Hague, as the King of England had directed his messenger to that place, commanding him to found, with this Gerrit of Oresanty, all kinds of blunderbusses (*donrebussen*) for the king's behoof." See *Tijdschrift voor Geschiedenis, Oudheden en Statistick van Utrecht* (Utrecht, N. van der Monde, 1839) quoted in *Notes and Queries*, 2 S. viii., p. 49.

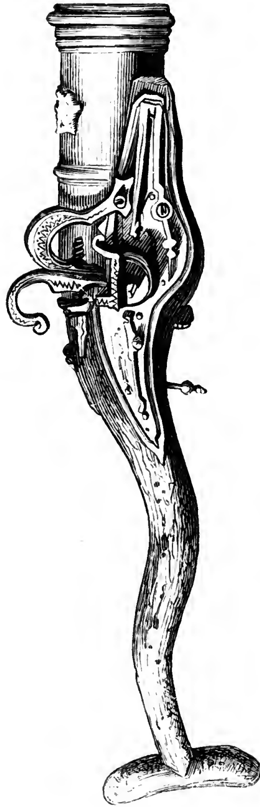
Dragon.

The DRAGON was a formidable weapon like a small blunderbuss, and combined the qualities which were considered requisite for a weapon to be conveniently carried on horseback, and used effectively on foot; those who used it were called dragoneers, dragons, and ultimately dragoons. Allusion has already been made (p. 33) to a weapon of this description preserved at Goodrich Court, which appears to be of similar construction to the "faire dragon" mentioned by Markham.

Hand-Mortar.

The HAND-MORTAR was a species of fire-arm for throwing grenades or shells. One of these is preserved at Goodrich Court. It is figured in vol. ii. of Skelton's *Illustrations.* The diameter of its barrel is three inches, while that of its chamber is scarce more than one inch and a half. From the length of stock, it is evident that it was fired from the shoulder. It is fitted with a wheel and match-lock combined, and from the engraving thereon, Sir S. Meyrick conjec-

No. 44.



Hand-Mortar in the Royal Artillery Museum, Woolwich.
Date, early in the Seventeenth Century.

tured that it belonged to the end of the sixteenth century.

The specimen represented on Plate XLIV. is from the Rotunda at Woolwich, and appears to be of the early part of the seventeenth century. It has a wheel-lock. The brass barrel has the arms of Wurtemberg chased upon it, near the muzzle. The calibre of the mortar is 2⅜ in.; of its chamber, 1 in.; depth of the chamber, 2¼ in.; of the mortar, 4⅝ in.; total length of the weapon, 2¼ feet. (See *Archæol. Jour.*, No. 91, p. 222.)

Several other examples of the hand-mortar will be found in the Tower and Woolwich Museums, all having flint locks.

In the Armoury of the Royal United Service Institution are two specimens of curious weapons, adapted for firing grenades from mortars, which are added to the butt of the pieces; the other end being a barrel with a fire-lock, the same lock answers both purposes; when the barrel was used, it was discharged from the shoulder; when the mortar end was required, the piece was inverted, and a steel rest falls down to the ground from beneath the barrel. One of these, which has a broad sling to cast the piece over the shoulder, appears to be of the time of James II.; the other, which is fitted with a cap, is still more modern, viz., *temp.* George II.

No mention appears of the first introduction of *granadas,* as they were at first termed; from the name it may be inferred that they were a Spanish invention. Meyrick (*Archæol.*, xxii., p. 89) tells us that

they were said to have been first used in 1594, but gives no authority for this supposition. They, of course, gave origin, at a later date, to the troops denominated Grenadiers.

The hand-mortars described above were, probably, specimens of proposed arms, but which had not been adopted in the service, for grenades were not fired from mortars, but were thrown by the hand. The origin of Grenadiers is thus given by Marshal Puységur :—" Comme Louis XIV. a fait bien des sièges, dans les commencemens on demandoit des gens de bonne volonté (volunteers) pour jetter des grenades. C'est ce qui a occasioné au feu roi de former des compagnies pour les employer a cela : ils avoient des grenadières pour mettre les grenades, et de petites haches pour s'en servir à des attaques de chemin couvert ou autres, pour couper les palissades, et enfoncer des portes."(1) In 1667 the Grenadier became a regular constituent of the French army.

Evelyn, in his *Memoirs,* recounts that in June, 1678, he visited the Camp at Hounslow Heath, and adds :—" Now were brought into service a new sort of soldiers called Grenadiers, who were dextrous in flinging hand-granados, every man having a pouch full. They had furred caps, with coped crownes, like Janizaries, which made them look very fierce; and some had long hoods hanging down behind, as we picture fools. Their clothing being likewise pybald yellow and red." (i. 497, edit. 1819.)

(1) *Art de la Guerre,* i. 222.—See also Daniel, ii., l. xi.; and St. Remy, i. 289.

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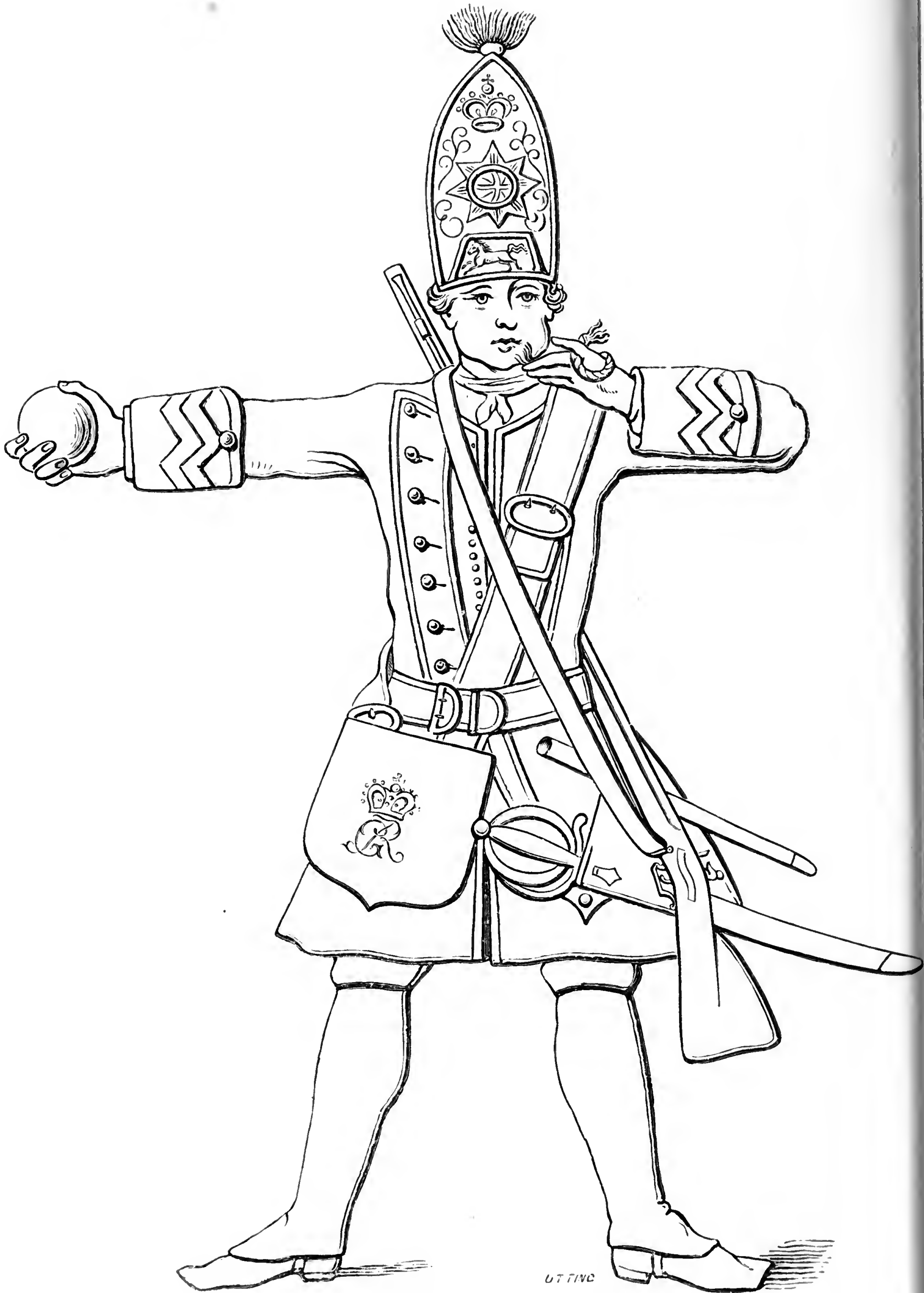
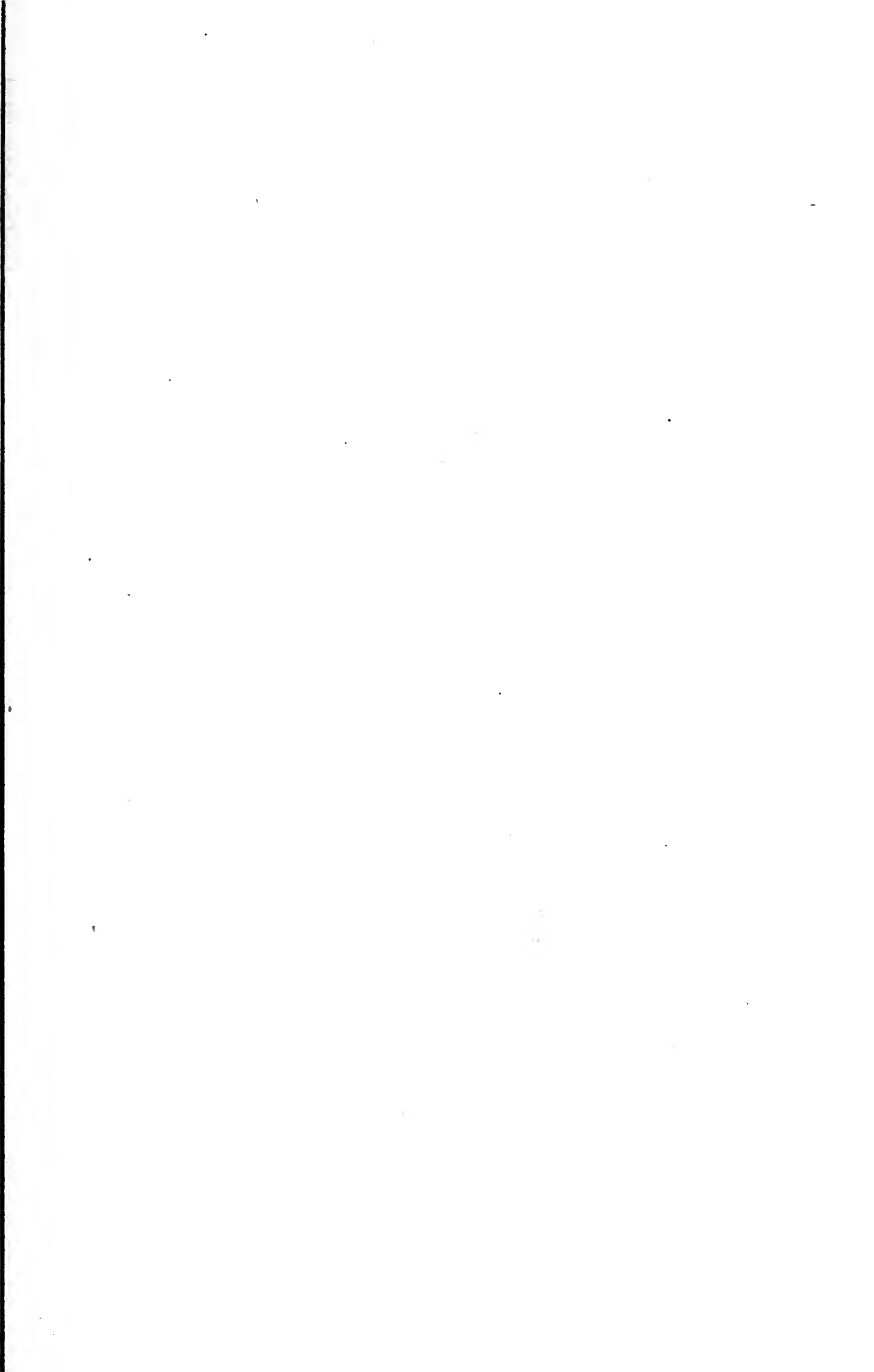


Grenadier of H.M. 1st Regiment of Foot Guards, A.D. 1745.



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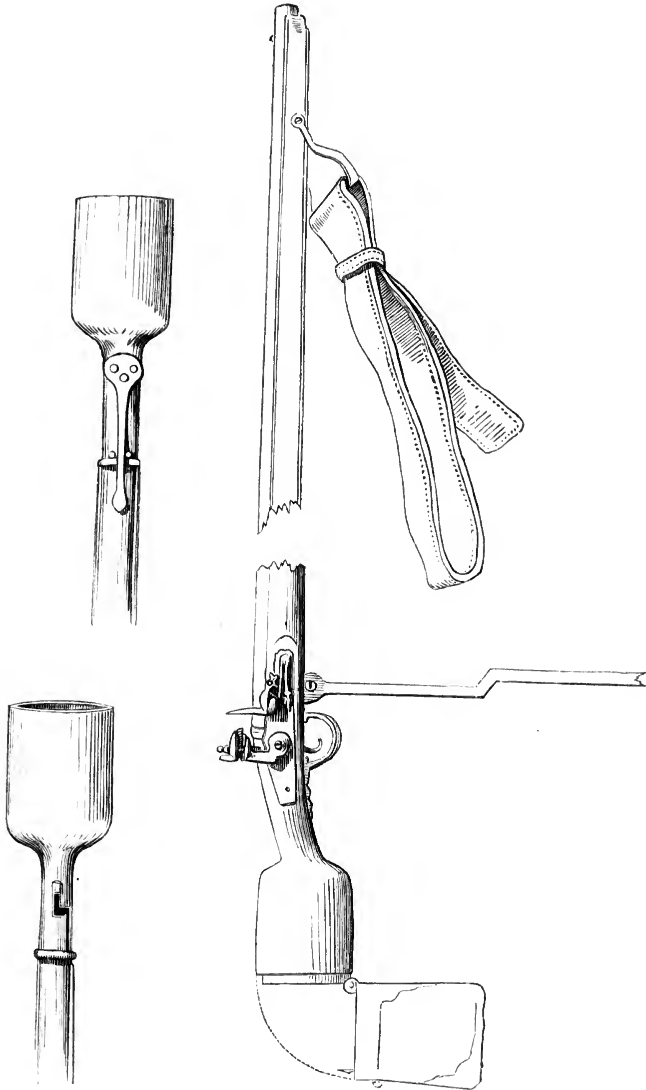


Fusils with cups, for projecting grenades; the locks engraved "J. R. 2." The rammers are at the side of the stocks, the rest falling into the grooves usually assigned to the rammer. The muzzle caps are shown with and without springs. (Tower Collection.)

The Grenadier on Plate XLV. is copied, by kind permission, from the *Journal of the Archæological Institution*, No. 91. It is taken from an engraving by Bernard Lens, limner to George II., which is in a rare book in the R. A. Lib., Woolwich, entitled, *The Grenadier's Exercise of the Grenado in H.M. First Regiment of Foot Guards.*

In 1684, most of the English regiments of infantry had grenadier companies.(1) They were armed with firelocks and bayonets. In Sandford's *Hist. of the Coronation of James II.*, their new clothing is described, with the distinctive conical cap; and each "granadier" was armed with a long carabine strapt, the barrel thereof 3 ft. 2 in. long, a cartouch-box, bionet (*sic*), granada-pouch, and a hammer and hatchet.

In the *Compendium of Military Discipline*, by J. Blackwell, Adjutant and Clerk to the Hon. Artillery Company, published in 1726, the words of command are given for the grenadier exercise:—

"Sling your firelocks [letting them fall behind their backs]; handle your matches; open your fuze [by bringing the grenade to the mouth, and opening the fuse with the teeth]; guard your fuse; blow your matches; fire and throw your grenades [directions given how to throw them with the hands]; return your matches; handle your slings."

There are two fusils, with cups for projecting grenades, at the Tower, $\frac{12}{423 \& 9}$, represented on Plate

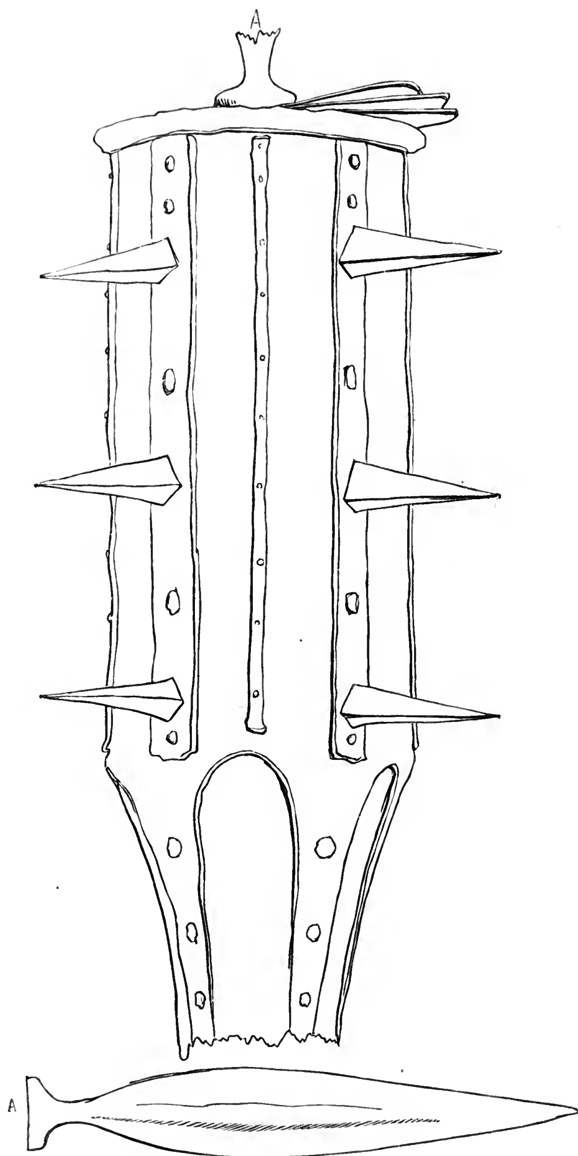
(1) *A General and Complete List Military of every Commission Officer of Horse and Foot.*—This class of troops is still styled vulgarly *Granadiers.*

XLVI. They have rests under the barrels, closing in the groove usually assigned to the ramrod, which is consequently fixed at the side of the piece. The locks engraved "J. R. 2." The original sling is deserving of notice. The muzzle-cups are shown with and without springs. A similar arm is in the Museum of the Royal United Service Institution.

The MUSKET-ARROW was a short arrow fired from a musket. We hear of them in the sixteenth century. They were much used (if not exclusively) on board our ships, and were found available in penetrating places where missiles of larger bulk could not make their way; and when furnished with combustible matter, were employed to set the enemy's rigging on fire. An early notice of them occurs in the *Norfolk Archæology*, in 1587, vol. i., p. 478:—"Item, for a dozen arrow-heds for muskets, ii*s*."

Whether invented by the English or not does not appear, but they were unknown to the Spaniards in 1593, as recorded by Hawkins, in his *Voyage into the South Sea* (Hakluyt Soc.):—The Spanish "generall Michael Angell demanded for what purpose served the little short arrowes which we had in our shippe, and those in so great quantitie. I satisfied them that they were for our muskets. They are not as yet in use amongst the Spaniards, yet of singular effect and execution, as our enemies confessed; for the upper worke of their shippes being musket proof in all places, they passed through both sides with facilitie, and wrought extraordinary disasters; which caused admiration, to see themselves wounded with small

No. 47.



Two-handled Mace, with three short "gonnes." Called in the Tower Survey of 1765 "King Henry ye 8th's Walking Staff." (*Vide Off. Cat.*, 14/1, p. 90.)

shott, where they thought themselves secure; and by no means could find where they entered, nor come to the sight of any of the shott. But of all the shot used now-a-dayes, for the annoying of an enemie in fight by sea, few are of greater moment for many respects, which I hold not convenient to treat of in publique." (sec. lxvi., p. 235.)

It may be remarked that in the sixteenth century there appears to have been a fancy for combining the gun with various other arms. Thus we have the "pole-ax with gonnes," and the shield with a fire-barrel or pistol projecting at the centre, in the Tower Collection; and a two-hand mace, with three short "gonnes," also in the same collection, $\frac{14}{1}$. (See Plate XLVII.) This is the weapon called in the Tower Survey of 1765, "King Henry y^e^ 8ths Walking Staff," and is probably the instrument which, in the Inventory of 1547, is entered as "Great holly water sprincle with three gonnes in the topp." Note by Mr. Hewitt:—"The name of *holy-water sprinkle* was given by the soldiery to those staves with spiked heads, from their resemblance to the *aspergillum* of the Roman Catholic Church." (*Official Tower Catalogue*, p. 90.)

Match-box.

The MATCH-BOX was a simple perforated tube of metal to hold a burning match, with the double advantage of keeping it alight by protecting it from the weather, and of concealing the light of it from the observation of the enemy at night. It is figured by Ward,(1) and described by him as "of tinne or

(1) *Animadversions of Warre*, p. 394.

latten, made like an elder pipe, about a foot long, with divers holes on eyther side like the holes of a flute, to let in the ayre to keepe the match from extinguishing," and he says it was invented by the Prince of Orange. Walhausen (*L'Art Militaire*, p. 136) also gives an illustration of this little instrument, and says that "every musqueteer should know how to carry his match dry in wet weather, either in his pocket or in his hat, *by putting the lighted match between his head and hat*, or by some other means to guard it from the weather. The musqueteer should also have a little tin tube of about a foot long, large enough to admit a match, and pierced full of little holes, that he may not be discovered by his match when he stands as sentry or goes on any expedition." Grose says that this was the origin of the match-boxes which were, till lately in his time, worn by the English grenadiers. (ii. 295.)

The musketeer's hat was still further utilised, as appears by an English Manual published by Royal command in 1690:—"Instruction 24: Take with your right hand some of the wad that sticks between your Hat-band and your Hat; tell slowly 1, 2; and bring the same, as you did the Bullet, to the Muzzel," &c.

Sir James Turner (*Pallas Armata*) says, "It is impossible to hide burning matches as well in the night-time, especially if there is any wind (though there be covers made of white iron, like extinguishers, purposely for that end), but that some of them will be seen by a vigilant enemy; and thereby many

secret enterprises are lost." Martin du Bellay tells us how this evil was turned to advantage by a smart captain of harquebusiers, who defended the city of Parma in 1521, but finding he could no longer hold the place, by a "grande ruse," he withdrew his little garrison at night-time without the enemy perceiving it until an hour after day-light. He had ordered his harquebusiers to cut off the lighted end of their match-cords, and to leave them at intervals on the rampart, where sentinels had been wont to be posted, so that the enemy seeing the lights, believed the garrison to be still on the alert; by this means he effected a timely retreat, and the "grande ruse" was not discovered till tell-tale daylight revealed the state of the case. (*Memoires*, liv. ii., p. 348, edit. 1821.)

Match was made of cotton or hemp, spun slack, and boiled in a strong solution of saltpetre, or in the lees of wine.(1) It was generally hung in reserve at the girdle, or tied to the bandoleers; it was sometimes coiled round the arm or the hat. By the 15th of Charles II., cap. 4, every musketeer was bound to attend every muster with "half a Pound of Powder, half a Pound of Bullets, and three Yards of Match."

Matchlocks are still used by natives in the East.

Cartridge.

The Cartridge was a great improvement on the collar of bandoleers. Markham recommends "cartalages" for the Hargobussiers.(2) Sir James Turner, (*Pallas Armata*) would lead us to believe that they

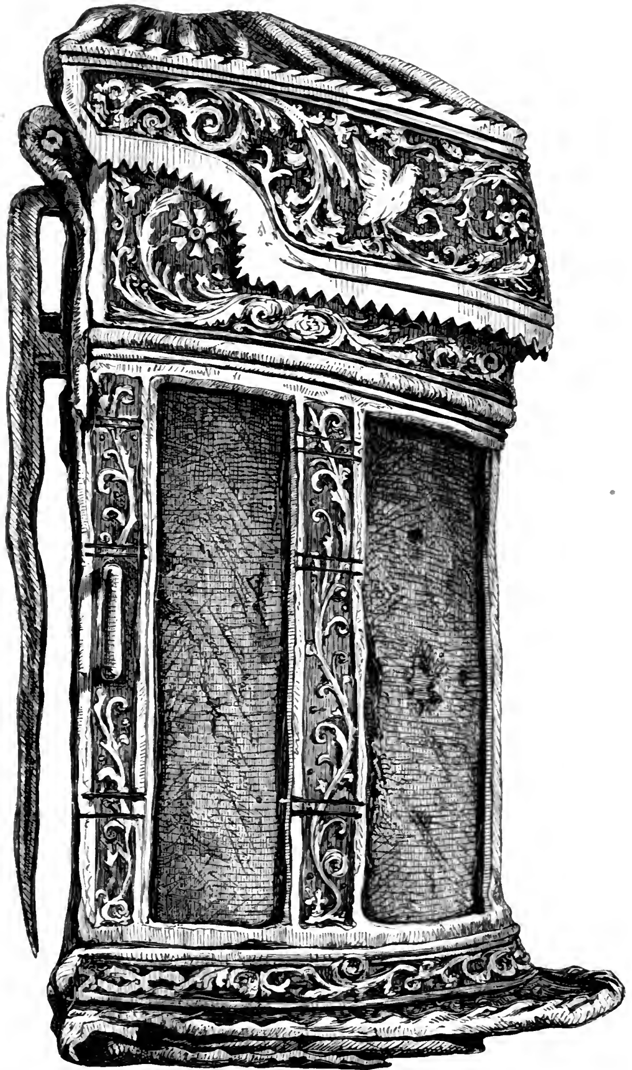
(1) Wilkinson's *Engines of War*, p. 66.
(2) *The Souldier's Accidence*, p. 36.

were first adopted in Germany. Writing in 1671, he says:—"It is thirty years ago since I saw these (bandoliers) laid aside in some German armies, for it is impossible for Soldiers, especially wanting Cloaks (and more want Cloaks than have any), to keep these flashes from snow and rain, which soon spoils them, and so makes the Powder altogether useless. Besides, the noise of them betrays those who carry them, in all Surprizals, Anslachts, and sudden Enterprizes. Instead of these, let Patrons be made, such as Horsemen use, whereof each Musketeer should be provided of a dozen; these should be kept in a bag of strong leather, or the skin of some beast well sow'd, that it be proof against rain. This bag he may carry about his neck in a Bandolier, or if the weather be extremely rainy, in one of his Pockets, and in the other a horn with Priming Powder, and his Cleanser tyed to it."

Plate XLVIII.—A Patron of steel containing about five Cartridges for pistols, and made to hitch into the waist-belt. The wood-cuts of Jost Ammon show the use of Patrons very clearly. The steel-work on this specimen is very beautiful and delicate, *temp.* 1590. (In the possession of A. J. Lewis, Esq.)

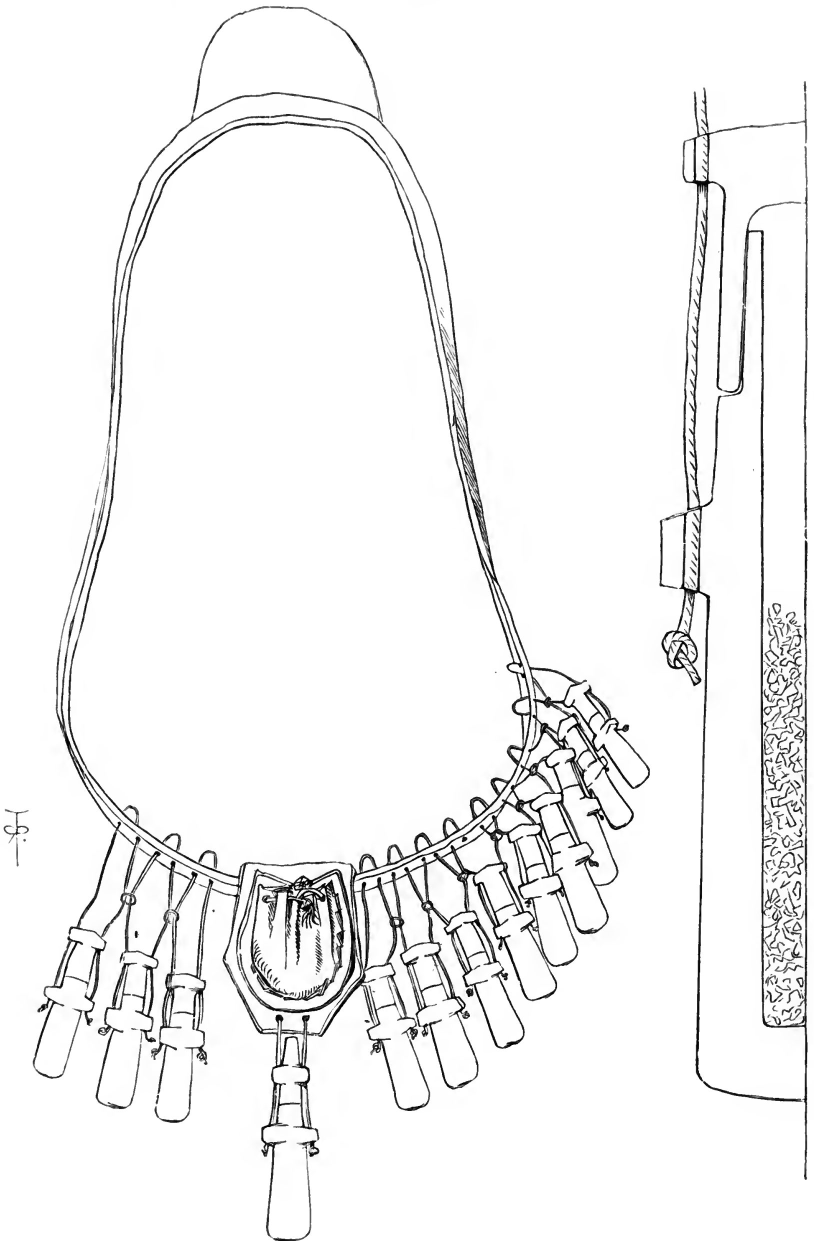
"Thus he hath no more to do but to bite off a little of the paper of his patron, and put his charge of powder and ball in at once, and then ram both home. . . . If this were try'd at home with us, as it is by some abroad, our powder flasks would be sold cheap." (p. 176.) Lord Orrery also discourses

No. 48.



Patron, containing about five cartridges for pistols, and made to hitch into the belt. The steel work in this specimen is very beautiful and delicate. *Temp.* 1590. (In the collection of A. J. Lewis, Esq., Kensington.)

No. 49.



Bandoleers, shown in the cluster, and full size. The bullet-bag hangs over the primer. *Cir.* 1640.

on this point in 1677. "I am also," says he, "on long experience, an enemy to the use of bandeliers, but a great approver of boxes of cartridges; for then, but by biting off the bottom of the cartridges, you charge your musket for service with one ramming. I would have these cartridge boxes of tin, as the carabines use them, because they are not so apt to break as the wooden ones are, and do not in wet weather, or lying in the tents, relax." He goes on to mention the imperfections of bandoleers: first of all, being worn outside the coat, they were very apt to take fire, especially if the matchlock musket be used; and when they do, they commonly wound, and often kill the wearer and those near him, and, probably, if one tube of the bandolier take fire, all the rest of the collar do the same. An instance of this is mentioned by Gwynne in his *Military Memoirs of the Great Civil War*, p. 41:—"A souldier's bandelier (who guarded the coulours) took fire, and went off in a heat, which made an incredible confusion among us." They often got entangled, and so obliged the wearer to retire; and their rattling often counteracted any secret move at night, and in a windy day their rattling often prevented the men from hearing the word of command. From all these disadvantages the cartridge was free.

Plate XLIX.—Bandoleers shown in the cluster, and (at the side) full size. The bullet-bag hangs over the primer. (*Circa* 1640.)

By the *Manual for English Troops*, in 1690, just quoted, it appears that the match-lock exercise and the use of bandoleers were still retained here, although

they had been abolished in the French army in 1684, for which see Mallet, *Travaux de Mars*, iii., p. 4.

Breech-loaders for hand-guns have already been shown to be no novelty. The specimen represented on Plate L. is very similar to the system now used in sporting arms. The barrel drooped by pressing the second trigger in front of the guard, and received the loaded chamber, over which is the barrel-catch. This arm is dated A.D. 1720, and is in the possession of R. T. Pritchett, Esq.

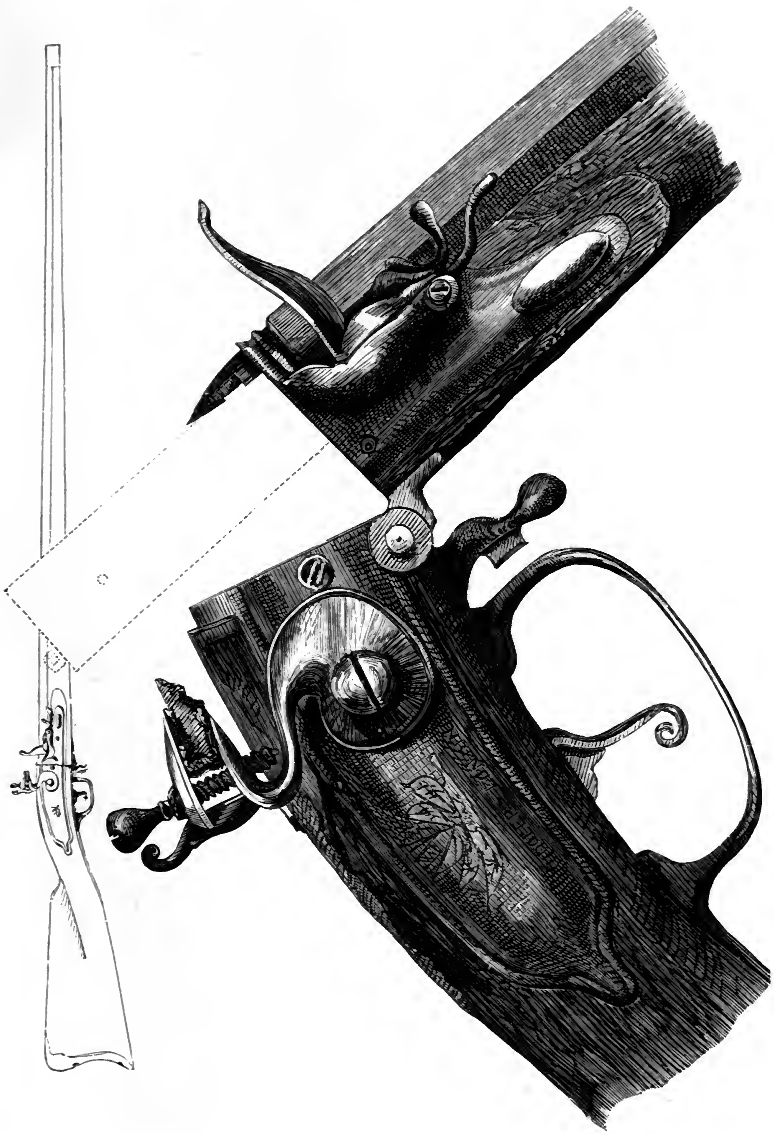
Bayonet.

The Bayonet, as a military weapon, was an invention—or more strictly speaking—an adaptation of the seventeenth century; for, after all, it is nothing more than a dagger; the dagger, again, is little more than a knife, and that was so useful and portable a weapon, that under the various designations of knife, dagger, misericorde, or poniard, it was seldom absent from the person.

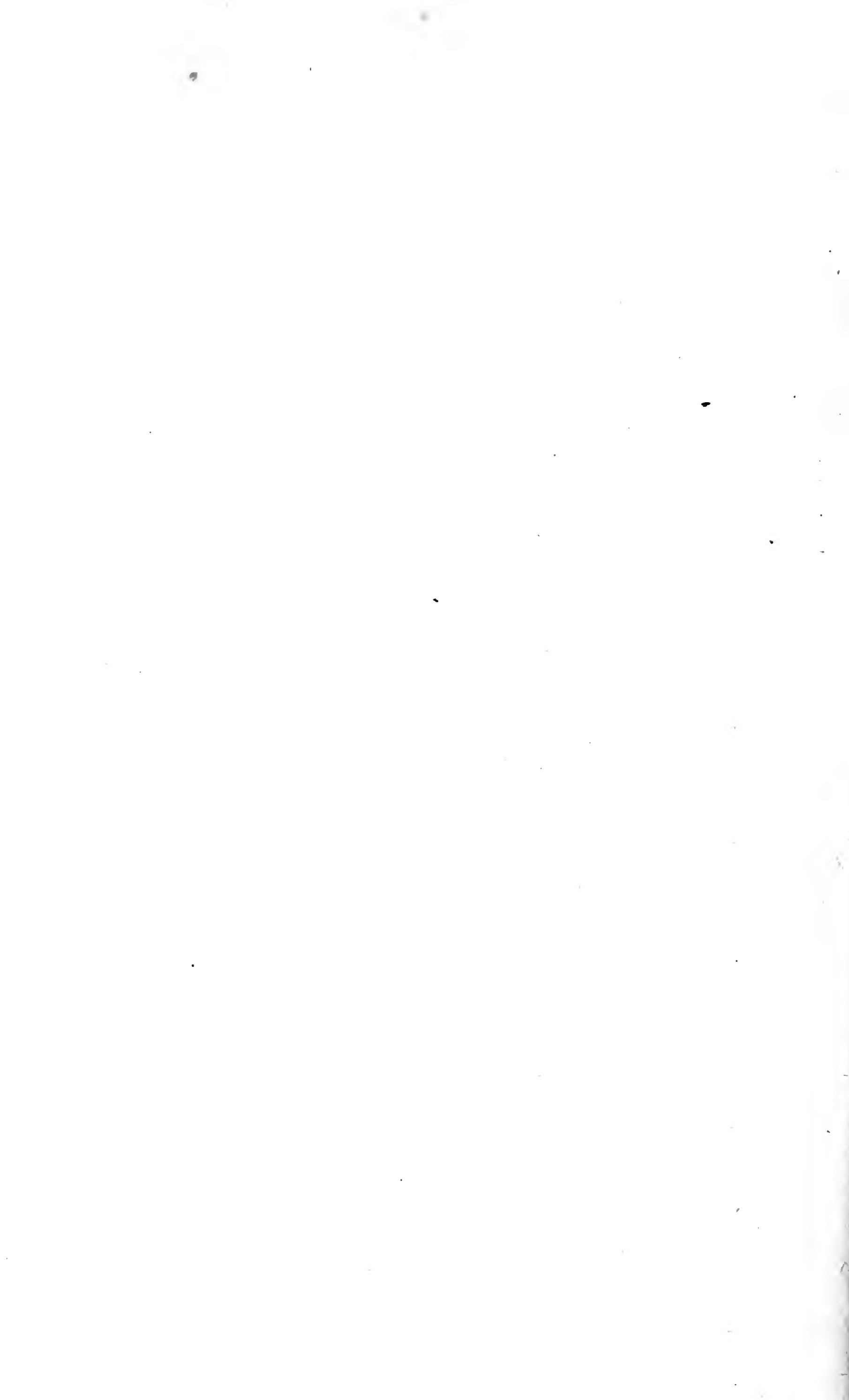
Ever since the invention of the musket, all sorts of contrivances had been proposed to defend the musketeer while loading. "Having often considered the danger of the musketeer," says Barriffe,(1) "and how unable he is to resist the horse, after hee hath poured forth his shot, without hee bee sheltered, either by some naturall or artificial defence; and withall having knowledge, that in several parts of Christendome divers captains and souldiers have often been trying conclusions, to make the muskettier as well defensive as offensive. Some by unscrewing the heads of their rests, and then *screwing the staffe of*

(1) *Military Discipline, or the Young Artilleryman*, p. 349. (1643.)

No. 50.



Breech-loading System, A.D. 1720. Very similar in construction to that now used in sporting arms. (In possession of R. T. Pritchett, Esq.)



their rests into the muzzell of the muskett, with the arming of a pike at the lower end, by which means they would use the musket and rest together, in the nature of a whole pike; but this proved too tedious and troublesome, that it fell without profit." He recommends musketeers to carry a half-pike. (1) Monck, in his observations upon *Military and Political Affairs*, printed in 1661, advises the arming of musketteers and dragoons with "swine-feathers," with the heads of rests fastened to them. These were carried by them in our armies until the seventeenth century—in fact, until superseded by the bayonet.

In the memoirs of De Puységur, we find what is apparently the first recorded notice of the *military* bayonet. In chapter viii., on "L'ordre que doit tenir une Armée pour passer une Riviére," the author writes, "When I was in command at Bergues, Yprès, Dixmude, and Laquenoc, all the parties that I sent out crossed the canals in this fashion. It is true that the soldiers did not carry swords, but they had bayonettes with handles one foot long, and the blades of the bayonettes were as long as the handles, the ends of which (*i.e.*, the handles) were adapted for insertion in the barrels of the fusils, so that the men could defend themselves, when attacked, after having fired." (2) This relates to the year 1647.

Now, although this may be, as far as we know,

(1) There is a specimen of a musket and pike combined in the Museum of the Royal United Service Institution.

(2) *Mémoires de Jacques de Chastenet, Chevalier, Seigneur de Puységur.* Paris, 1747.

the first written account of the bayonet being used as a defence in war, Puységur does not mention the circumstance as though there was a complete novelty about it. He states, simply, "Les soldats avoient des bayonettes." The fact is, that the bayonet was not a new invention at that time. In Cotgrave's *Dictionary*, first published in 1611, we find "Bayonette, a kind of small pocket-dagger, furnished with knives, or a great knife, to hang at the girdle, like a dagger." In *Études sur le passé et l'avenir de l'Artillerie*, there is a transcript of a proclamation of Louis XIV., in 1660, wherein the King desired to rectify certain abuses in the carrying of arms. The preamble contains the following statement:—"La fréquence des accidents qui arrivent journellement par l'usage des baïonettes et couteaux en forme de poignards *qui se mettent au bout des fusils de chasse*, ou se portent dans la poche, et par le port et l'usage des pistolets de poche, nous oblige d'y pourvoir," &c. (Tom. iv., p. 16.)

Thus we learn that before the year 1660 (and it may have been long before), down to our own times,([1]) the plug-dagger has been in use for hunting purposes. Some of the earliest plug-daggers, moreover, are of a rich character, and others are ornamented with hunting subjects; some of them have a saw on one edge, very useful for forest-arms, but out of place for a war

([1]) Mr. Akerman states, in a note to his paper on bayonets (*Archæol.*, xxxviii.), that Mr. Bernhard Smith informed him that when he was at Rome, in 1835, it was the fashion to have plug-shaped handles for the knives used in boar-hunting, so as to fit into the muzzle of the rifle.

bayonet. Puységur's soldiers may have been the first who applied it to the more serious office of military defence. (1)

Now as to its name. Bayonne was at an early period renowned for its iron works and cutlery. This, at first sight, would appear the natural source of its nomenclature, and this has been generally conceded. Ménage, in his *Dictionary*, published in 1694, has "Bayonette, sorte de poignard, ainsi appelée de la ville de Baionne;" and Voltaire has immortalised the circumstance, be it correct or not, in the *Henriade*:—

> "Cette arme, que jadis, pour dépeupler la terre,
> Dans Bayonne inventa le démon de la guerre."

But now comes a difficulty. Cotgrave again gives us "*Bayonnier*, an arbalestier, a crosse-bowman, also a crosse-bow maker." In the *Glossaire de la Langue Romane* of Roquefort, the word is again explained as a cross-bowman. It is difficult to perceive the affinity between a cross-bowman and the city of Bayonne. The word Bayonne is said to be a compound of two Basque words, *baia* and *ona*, good bay or port, which offers no explanation. It may be said that the cross-bowman was armed with a knife made at Bayonne, but it does not seem likely that a cross-bowman should be distinguished by the knife, and not the cross-bow. The lexicographists themselves appear to have been puzzled about it. "Ce mot," says Michelet, "*semble* venir de Gascogne."(2)

(1) Maréchal Puységur recommends, in *L'Art de la Guerre*, i. 220, "that all soldiers, instead of swords, should carry *couteaux de chasse*."

(2) *Dict. de la Langue Françoise*, 1759.

A lower ridge or spur of the Montagne d'Arrhune, in the Pyrenees, is called "La Bayonnette." As a reason for this name, it is stated that a local tradition exists, that at this spot was first extemporised the defence of the bayonet by some Basques, who being assailed by Spaniards, and having exhausted their ammunition, seized the idea of thrusting their long knives into the muzzles of their fire-arms, and by this means defeated their antagonists.(1) But were this circumstance authenticated, it would not bring us any nearer to the etymology of the word.

Notwithstanding the obvious advantage of the bayonet as a military weapon, it appears for a time to have been utterly neglected. Sir James Turner, writing in 1670, thus recommends its adoption:—

"When musketeers have spent their powder, and come to blows, the butt-end of their musket may do an enemy more hurt than those despicable swords which most musketeers wear at their sides. In such medleys, knives whose blades are one foot long, made both for cutting and thrusting (the haft being made to fit the bore of the musket), will do more execution than either sword or butt of musket."

In a work entitled *English Military Discipline*, published by Robert Harford in 1680, we obtain a description of the bayonet, and also the date of its

(1) Vide *Esquisses et Croquis Militaires*, par Becherelle, 1852.—The ridge of *La Bayonnette* was stormed and carried by the allies in 1813, before they gained the Arrhune.

introduction here. It is there stated, "The bayonet is much of the same length as the poniard (twelve or thirteen inches); it hath neither guard nor handle, but onely a haft of wood, eight or nine inches long. The blade is sharp-pointed and two-edged, a foot in length, and a large inch in breadth. The bayonet is very useful to dragoons, fusiliers, and souldiers that are often commanded out on parties; because that, when they have fired their discharges, and want powder and shot, they put the haft of it into the mouth of the barrel of their pieces, and defend themselves therewith, as well as with a partisan." He goes on to observe, that pikemen are useless for advanced posts, where, in order to give the alarm, it is necessary to make a noise. "These reasons," he adds, "and many others, have led to the giving this year (*i.e.*, 1680) to some musqueteers, bayonets to fix in the muzzles of their pieces when attacked by cavalry, thus having the effect of pikes, the use of which will ere long, no doubt, be abandoned."

Up to this point, we have heard of two descriptions of bayonets, Puységur's, whose blade and handle were of equal dimensions, each a foot long, and Harford's, whose blade was twelve or thirteen inches, and handle eight or nine inches long.(1) In Mallet's *Travaux de Mars*, published in 1685, there is an engraving of the bayonet then in use, similar to this last one.

(1) See platė xxxiii., vol. vii., of the *Journal of the Royal United Service Institution*, illustrating a lecture delivered in the theatre of the Institution on the subject of the bayonet.

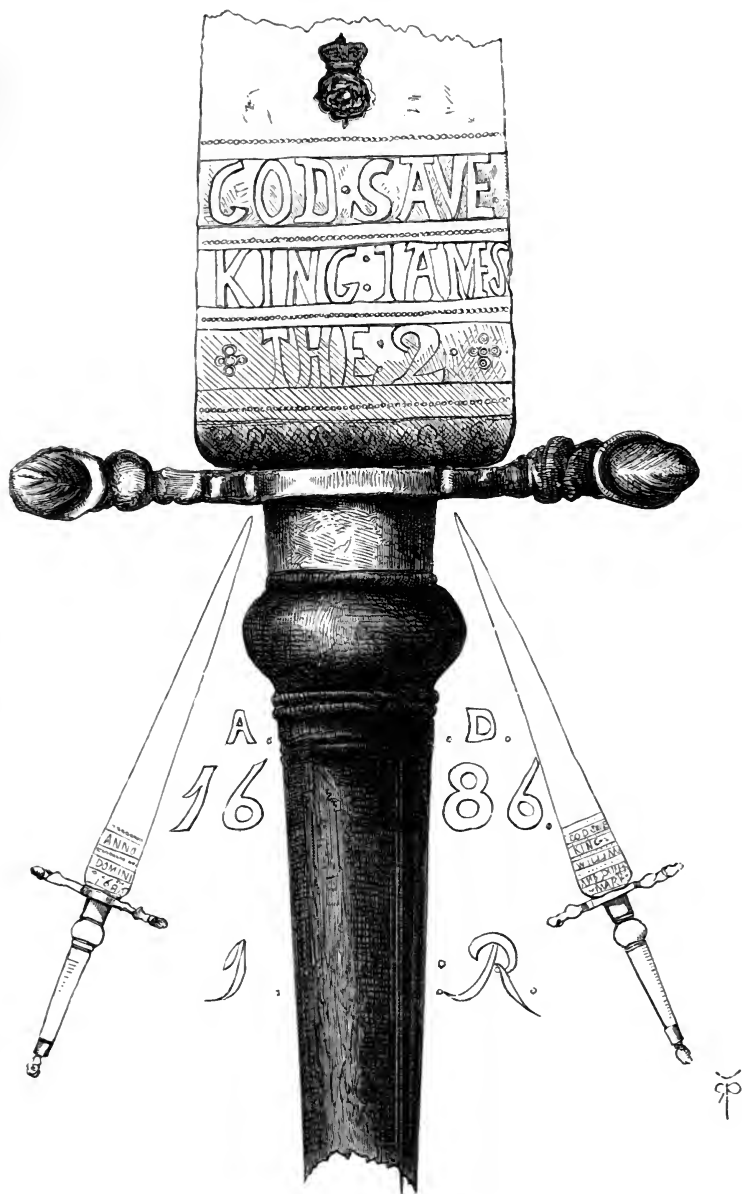
In the following year, the form of the bayonet appears to have been somewhat changed, and in this country, at least, a uniform or regular pattern to have been adopted. There is one preserved in the Tower Armoury, which bears this inscription on its blade: "God save King James II., 1686." A similar plug-bayonet of rather earlier date is in the possession of Mr. Pritchett; see Plate LI. "1686. J. R." On the reverse is inscribed: ETVI · LA · QVI · AVFANSERA . MON · SEIGNEUR · OV . SA . DAME · IL · FAVT · QVE · DE . SON . CORS · JE · LVI · SEPARE . L' · AME." Many plug-bayonets are to be seen in the Tower Armoury, although 2,025 were consumed in the fire there in 1841,(1) also in the Guard Chamber at St. James's Palace, and at Hampton Court.

This new weapon was found very effective, and ultimately put pikes *hors de combat*. It took some years to effect this, however, so naturally do men seem averse to lay aside an old weapon—in England, perhaps, remarkably so. Pikes were not discarded from the British service in 1706.

In 1671, a corps was raised in France, armed with fusils and bayonets, the latter being carried for the first time in a sheath alongside of the sword.(2) In England, the example of France was followed, as was our wont, but in this instance, pretty quickly. In the next year, a warrant was issued by Charles II., the original of which is preserved in the records of the War Office:—

(1) This information was kindly supplied by Mr. Hewitt.
(2) *Mil. Fran.*, tom. ii., p. 422.

No. 51.



Plug Bayonet. James II. 1686. On the reverse side is ETVI . LA . QVI AVFANSERA . MON . SEIGNEUR . OV . SA . DAME . IL . FAVT . QUE . DE . SON . CORS . JE . LVI . SEPARE L'AME.

"April 2, 1672.

"CHARLES R.

"Our will and pleasure is that a Regiment of Dragoons which we established and ordered to be raised in Twelve Troopes of four score in each besides officers, who are to be under the command of Our most deare and most intirely beloved Cousin, Prince Rupert, shall be armed out of Our stoares remaining within Our office of the Ordinance, as followeth: that is to say, three corporalls, two serjeants, the gentlemen-at-arms, and twelve souldiers of each of the said twelve Troopes, are to have and carry each of them one halbard, and one case of pistolls with holsters; and the rest of the souldiers of the several Troopes aforesaid are to have and carry each of them one match-locke musquet with a collar of bandaliers, and also to have and to carry one *bayonett* or *greate knife*. That each lieutenant have and carry one partizan; and that two drums be delivered out for each Troope of the said Regiment.

"By His Majesty's Command,

(Signed) "ARLINGTON.

"To Sir Thomas Chichely, Master-General of the Ordnance."

The introduction of a lighter fire-arm, the fusil, would render the bayonet far more effective. The old unwieldy musket, even when armed with the bayonet, was very unequal to cope with the comparatively light spear or pike. It has been already stated that our first regiment of Fusiliers (the 7th)

was not raised till 1685, and it was provided with bayonets.(1)

Great as was the advantage of being able to arm the musket or fusil against a surprise, the loss of its fire, while plugged in the muzzle by the bayonet, was, of course, a serious one; and this led to a contrivance whereby the soldier could discharge his piece, and retain his bayonet fixed.

The Maréchal de Puységur (son of the Puységur mentioned before), in the *Art de la Guerre* (tom. i., p. 220), says that he had seen "a regiment, before the peace of Nimeguen, in 1678, which was armed with swords without guards, but in lieu thereof a brass ring, and another at the pommel. Through these the barrel of the fusil was passed." This admitted of the same effect as the socket-bayonet of the present time.

The immediate cause of the loss of the battle of Killiecrankie was the impossibility of fixing the bayonet in time to meet the impetuous onset of the Highlanders. Mackay, in his *Memoirs* for the year 1689, says, "All our officers and soldiers were strangers to the Highlanders' way of fighting and embattailing, which mainly occasioned the consternation many of them were in, which, to remedy for the ensuing year, having taken notice, on this occasion, that the Highlanders are of such a quick motion, that if a battalion keep up his fire till they be near, to

(1) "Our Royal Regiment of Fusiliers to have snap-hance musquets, strapt, with bright barrels of 3 feet 8 inches long, with good swords, cartouch-boxes, and *Bionetts*." (James II.'s orders for arming the Royal Fusiliers.—Cannon's *Records*.)

make sure of them, they are upon it before our men can come to their second defence, which is the bayonet in the musle of the musket. I say, the General (Hugh Mackay) having observed the method of the enemy, he invented the way to fasten the bayonet so to the musle without by two rings, that the soldiers may safely keep their fire till they pour it into their breasts, and then have no other motion to make but to push as with a pick."(1)

The merit of this contrivance cannot, however, be claimed for General Mackay, as we have just seen. The peace of Nimeguen was in 1678, and the battle of Killiecrankie was fought eleven years after, in 1689.

The experience gained of the characteristic impetuosity of the Highlanders in attacking with their claymores, was not thrown away; and in 1746 the Duke of Cumberland gained much credit by the success which attended the instructions which he issued at Culloden, that his soldiers should direct their bayonets each to his right-hand man of the enemy. The effect was, that when the swordsmen lifted up their right arms, they laid bare their breasts to the bayonets.(2)

The improvement of the ringed bayonet was not generally or quickly adopted; for in an English manual of 1690, the fusil of the grenadier has the plug-bayonet as before. Grose mentions an

(1) *Memoirs of the Scottish War*, p. 52. (4to. Edinb., 1833).—See also Macaulay's *Hist. of England*, iii. 371.

(2) *Gent. Mag.* (May, 1746), vol. xvi., p. 244.

anecdote which, he states, was communicated to him by Lieut.-Colonel Christopher Maxwell, of the 30th Regiment of Foot, who had it from his grandfather, formerly Lieut.-Colonel of the 25th Regiment of Foot. It is to this effect:—"In one of the campaigns of William III., in Flanders, in an engagement, the name of which he had forgotten, there were three French regiments whose bayonets were made to fix after the present fashion—a contrivance then unknown in the British army. One of them advanced against the 25th, with fixed bayonets. Lieut.-Colonel Maxwell, who commanded it, ordered his men to screw their bayonets into their muzzles, to receive them, thinking they meant to decide the affair point to point; but to his great surprise, when they came within a proper distance, the French poured in a heavy fire, which for a moment staggered his people, who by no means expected such a greeting, not conceiving it possible they could fire with fixed bayonets. They nevertheless recovered themselves, and drove the enemy out of the line." (i. 165.)

The story may or may not be true, but on such questionable authority no reliance can be placed on it. In the records of the 25th Regiment no mention is made of any affair like that above; the regiment was, however, in Flanders at the time.(1)

The ringed bayonet continued in vogue for a

(1) The *Army Lists* do not commence earlier than 1741. The name of Christopher Maxwell appears in the *Army List* of 1782, having succeeded to the lieutenant-colonelcy of the 30th in that year. He entered the regiment as ensign in 1755.

considerable time. We learn from Grose that two horse grenadiers rode before the coach of Queen Anne, with their bayonets fixed by means of rings. (i. 156.) Even later than that, a glossary appended to the *Memoirs, Historical and Military, of the Marquis de Feuquière*, in 1735, explains "Bayonet, a short broad dagger, made with iron handles, and rings that go over the muzzle of the firelock."

The next and final improvement was the socket bayonet, and this time the French do not seem to have been the first to adopt it. Marshal Puységur says, "During the war of 1688, it had been proposed to the late king (Louis XIV.) to discontinue pikes and muskets; he even tested the effects of socket bayonets (*bayonettes à douille*), very similar to those in present use, on the muskets of his own regiment; but as the bayonets had not been fitted to the barrels, which were of different sizes, they were not very firm, so that in the trial which took place in the presence of his Majesty several of them fell off in firing, and in others the bullet, in passing out, broke the end, so that they were rejected. But a short while after, other countries with which we had been at war laid aside their pikes, and took to fusils and socket bayonets, to which we were obliged to return."(1)

This passage is curious, not only as describing the first days of the socket bayonet, but also as showing that even in the King's regiment the arms were not of uniform pattern. The socket bayonet was in general use in the French army in 1703-4.(2)

(1) *Art de la Guerre*, i. 148. (2) *Ibid.*, i. 118.

We have, doubtless, often heard the bayonet called bagonet, which we have considered a vulgarism only to be ridiculed; it appears, however, to have been so designated by authority about the period of its introduction here. Mr. Akerman states, that in a small MS. volume in his possession, written in the latter half of the seventeenth century, entitled, "*Exercise of Dragoons*, composed for his Ma^{ts} Roy^{l} Regiment, by ye R^{ht} Honble Louis, Earle of Feversham, Colonell," are these instructions: "Handle yor baggonets; draw out yor baggonets; mount your baggonetts altogether; fasten them into y^{e} mussells of your musket." They are further instructed to "march through a towne with musketts advanced, and through a quarter wth baggonetts in y^{e} mussells of y^{e} musketts."(1)

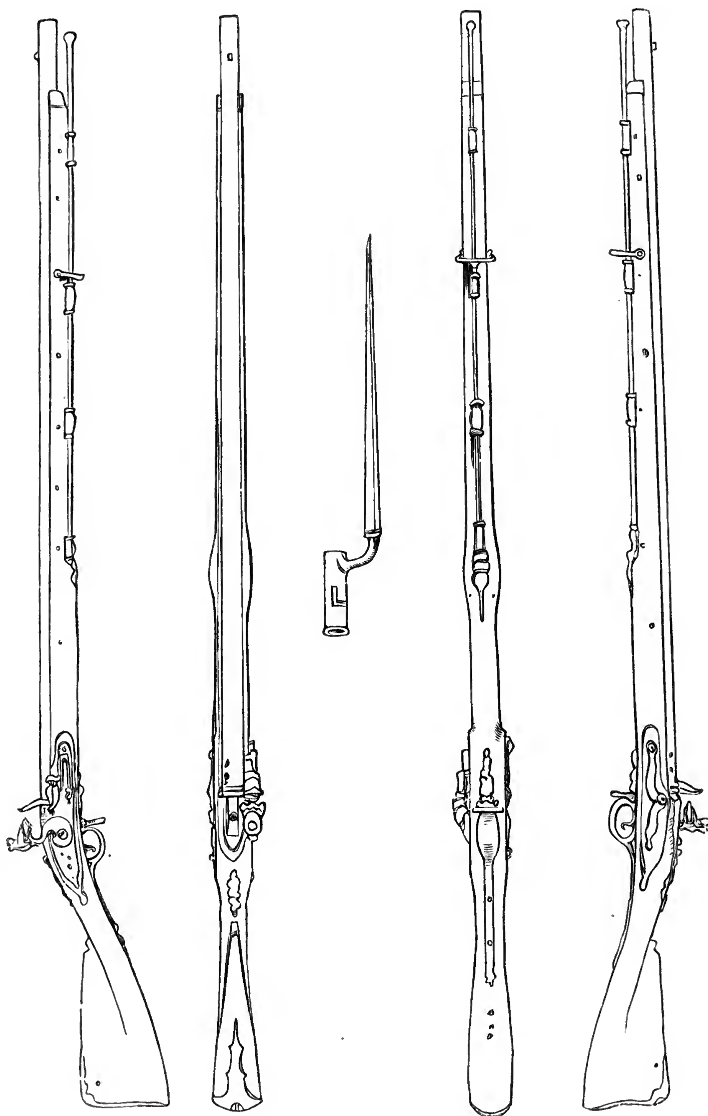
In February, 1686, the Coldstream Guards were supplied with bayonets for the first time. In the contingent disbursements made by the Regimental Quartermaster for that year is the following item:—"For taking out and carrying of the Bagonets for the regiment," &c.

Even so late as 1735, the word was so printed. "Bagonet is a short, broad dagger," &c., in the glossary before quoted. The fact of the *baggonet* having been originally a *dagger*, and being called so, after it was used as a bayonet,(2) may have had some-

(1) *Archæol.*, xxxviii. 429.

(2) In *Military Discipline, or the Art of War, shewing Directions for the Postures in Exercising of the Pike and Musquet, the Dragoons, Granadiers and Horse*, by Capt. J. S. (1689), the bayonet is invariably called dagger:—"The Granadiers are to deliver their Granados, and to put their Daggers into their Fire Locks." (p. 75.)

No. 52.



Old Brown Bess. Regulation Musket. Date 1786.

thing to do with the corruption; and the practice of drill-instructors, as is well known, in all times, has been to give that intonation to a word of command which is best heard at a distance.

Plate LII.—Old Brown Bess, regulation musket, and socket bayonet, A.D. 1786.

CHAPTER VI.

MILITARY ARRAY—ARBITRARY MODE OF LEVYING TROOPS—ARRAYORS—DISOBEDIENCE OF HEREFORD, LORD HIGH CONSTABLE, AND NORFOLK, EARL MARSHAL—OFFICERS OF ARMIES—VARIOUS DESCRIPTIONS OF TROOPS—MUSTERS—APPRECIATION OF HORSES—OFFICE OF LORD HIGH CONSTABLE—EARL MARSHAL—GENERAL AND STAFF OFFICERS—SURGEONS—CHAPLAINS.

"NOTHING proves more surely the mutual confidence which held together the government and the people," says Mr. Froude,(1) "than the fact, that all classes were armed."

We have seen that the Kings of England had three distinct means to which they could have recourse when it was deemed necessary to arm either for home or foreign service—the quota of the knights' fees, the posse-comitatus, and such hired troops as they might think proper to engage; and inasmuch as the posse-comitatus could not legally be compelled to leave the kingdom, and only in particular cases the shire to which it belonged, the King consequently had only his feudal and mercenary troops at command when he carried an army to the Continent, or when he had to wage war against even the Scotch, or Welsh, or Irish; and that as the feudal troops might demand their discharge when their forty days' service had expired,

(1) *Hist. of England*, i. 60.

our kings saw the advantage of accepting money instead of personal service; and thus the Crown acquired a revenue which was applicable for military purposes, and was expended by our Edwards and their successors chiefly in contracts for the hire of native-born subjects to serve in their armies, and there existed little essential difference between this and the modern practice of recruiting. In great emergencies the Crown put forth all its powers, and laid hold of every one either to serve or to pay. The aged, the infirm, women who had succeeded to knights' fees—all had to contribute. These were the regular and constitutional resources of the country, but many of our sovereigns, by virtue of the royal prerogative, issued writs arbitrarily, directing districts or towns, and even particular individuals, to provide men and horses, or to send the value of them in money. This mode was resorted to occasionally up to the reign of Queen Elizabeth, and by her pretty freely.

When an army was to be raised, as soon as the requisite numbers had been decided, writs were dispatched to the sheriffs of those counties selected (if the levy were limited) to supply the contingents, either on account of their proximity to the scene of intended operations, or their convenience for embarkation. It then became the duty of the sheriff to send a copy to each individual in his county who held by barony of the Crown, and, for the information of the lesser tenants, to order proclamation to be made in all the courts, fairs, and

markets.[1] On some occasions the writs were addressed to all ranks, as "Rex, dilectis et fidelibus suis, comitibus, baronibus, militibus, liberis hominibus et omnibus aliis." When the levies had assembled at the general rendezvous, they then came under the jurisdiction of the lord high constable and marshal.

Inspection of Arms.

In times of peace the twice-a-year inspection of arms by the local authorities was considered sufficient;[2] but something more was requisite when the kingdom was either actually engaged in war, or in apprehension of imminent danger. On such occasions, as long as the statute of Winchester, or in subsequent times that of Philip and Mary, continued in force, it was customary for the Crown to issue commissions, in which two or more persons, generally of position and influence in the county, were employed to muster and array (or set in military order) the inhabitants of every district. These persons were termed arrayors (*arriatores* in Latin), and their duties were of considerable importance. They had to muster

(1) Rymer, iii. 562.—Many of these documents are preserved in the public records, and are copied in Rymer, *e.g.*:—"Vicecomiti Kanciæ salutem. Præcipimus tibi quod sine dilatione summoneri facias per totam ballivam tuam archiepiscopos, episcopos, abbates, priores, comites, barones, milites, et libere tenentes, et omnes alios qui servitiam nobis debent, sive servitiam militare vel serjentiæ, quodque similiter clamari facias per totam ballivam tuam, quod sint apud Wigorniam in crastino S. Trinitatis, omni dilatione et occasione postpositis, cum toto hujusmodo servitio quod nobis debent, paratis cum equis et armis, ad eundem in servitium nostrum, quo eis præciperimus." Apud Westmon., 25 die Maii, eodem modo scribitur omnibus vicecomitibus Angliæ. Cl. 7 Hen. VII., m. 10, dorso.

(2) Stat. of Winchester, A.D. 1285.

the men, in order that the King should not be defrauded in numbers, or in the weapons with which each individual was bound to be provided. In the 16th Edward II. (A.D. 1322), for instance, the King addresses himself to "dilectis et fidelibus suis," and others "de comitatu Cornub'," and proceeds to nominate Thomas Lencedekne and Reginald de Botereux, "ad eligendum in comitatu prædicto, quingentes homines pedites, et ad ordonandum quod iidem pedites certis armis muniantur, et una secta vestiantur, et ad ducendum eos in expeditione," &c. (Rymer, ii., part i., p. 482.) They were also authorised to "choose and try,"(1) that is, to reject the incapable, and to make choice of the most efficient: "de validioribus et potentioribus:"(2) "des meilleurs, et plus vaillauntz, et plus suffisauntz,"(3) and therefore they were sometimes addressed, "*electoribus* et arraiatoribus." (Edw. III., 1346.) In 1327, Edward III. sent commissioners into every county, with most ample powers to raise forces for his expedition into France. They were empowered to inquire, with the aid of a jury, or by any other means, the names of all the men-at-arms within the shire; to array all, without exception, whom they judged proper for the service; and to send a faithful return of every particular to the officers of the royal wardrobe. At the

(1) "Eslire, trier, ordener et asseer gentz-d'armes aussi bien a chival come a pie." (Rymer, v. i., pt. i., p. 911.)

(2) Rymer, ii. 846.—Edw. II., A.D. 1322, *et alibi*.

(3) *Ibid.*, A.D. 1355, *et alibi*.—In ditto, the names of arrayors, and also sub-arrayors, appointed for each county, are given. (1 Edw. III., *an.* 1327.)

same time, it was made known by proclamation, that if any person were convicted of having offered a present to the commissioners, he should forfeit eighty times, and the receivers one hundred and sixty times, its value.[1]

Arbitrary Levies.

These levies were conducted in the most arbitrary manner. The commissioners had ample powers to effect the great purpose of raising men or money,[2] and they were entrusted with levying the funds for hiring or paying troops, as appears by Statute 2 of 10th Edw. III., anno 1336, which orders "that the money levied by the arrayers of hobelers and archers for the war in Scotland, and still remaining in their hands, be returned." The law provided that men on service should be paid by the King "ad vadia nostra," from the time of their leaving their homes: 18th Edw. III., statute 2, chap. 7, "that men-at-arms, hoblers, and archers chosen to go in the King's service out of England shall be at the King's wages, from the day they depart out of the counties where they were chosen till their return;" but it appears they were frequently removed at the expense of the shire. (See Rot. Parl., ii. 149, quoted in Lingard, vol. iv., ch. ii., p. 137, edit. 1837.)

In 1282, Edward I. ordered the sheriffs to send to the army in Wales every man whose income was

(1) Rymer, iv., pp. 1,107-8.

(2) "Damus vobis potestatem puniendo per arestationem corporum, et captionem terrarum, tenementorum, bonorum et catallorum, in manum nostrum, omnes et subjectos quos in hac parte inobedientes inveneritis et rebelles." (Rymer, ii., pt. ii., p. 708.)—Addressed to Arrayers and Sub-arrayers. (1 Edw. III., A.D. 1327.)

rated at more than £20 a-year.(1) In 1297, he required the attendance of every landed proprietor possessed of £20 a-year, even though he held not of the Crown:(2) the object being to assemble an army for the protection of his dominions in Gascony, where his brother Edmund had just died; and he designed proceeding with another army to the rescue of Guy, Earl of Flanders, whose dominions were invaded by the King of France. Humphrey Bohun, Earl of Hereford, Lord High Constable, and Roger Bigod, Earl of Norfolk, Earl Marshal, being summoned, in virtue of their offices, to attend and take command of the first-named army, refused compliance, affirming that they were only obliged by their office to attend the King's person in the wars. This led to some high words, Edward saying to the Constable, "Sir Earl, you shall either go or hang." Upon which Hereford retorted, "Sir King, I will neither go nor hang."(3)

The necessity for speedy succours to Flanders being urgent, Edward saw the policy of smothering his indignation, so he abandoned the Gascon expedition, and ordered the army to assemble which he proposed to lead in person to Flanders. But the Constable and Marshal were still factious, and declined to perform the duties of their office in mustering the forces,(4) on the plea that neither they nor their ancestors were bound to serve the King in Flanders.(5)

(1) Rot. Wall., 11 Edw. I.
(2) Walsingham, p. 69.
(3) Heming, i. 112.
(4) Rymer, *sub ann.*
(5) "The judgment of Sir E. Cooke in Calvin's case, who affirmeth

Edward was constrained to act with moderation towards the two powerful earls, who possessed their offices by hereditary right, and so avoided the difficulty by appointing Thomas de Berkeley and Geoffry de Geyneville to act as Constable and Marshal *pro hac vice*.(1) The King, however, never forgave this act of disloyalty, and he found means afterwards of obliging them to resign their offices into his hands. The Constable subsequently received a fresh grant of his, but the office of Marshal was bestowed upon Thomas of Brotherton, Edward's second son.

Command of the Army.

When the King summoned his military tenants, the Earl Constable and Earl Marshal held the principal commands under the sovereign; but in armies raised by contract, the Crown appointed two or more marshals, to array and direct the forces. The cavalry was divided into small bodies or troops, called constabularies, from their being under charge of officers called constables, which title, as commander of small bodies of men, occurs as early as the reign of King John.(2) The infantry was arrayed in companies of twenties and hundreds, under officers who took their names from the numerical proportion of their command, namely, vintenars, and centenars, and

that the subjects of England are bound by their legiance to go with the king in his wars, as well within the realm as without: and this legiance is absolute and indefinite, and not local." Bacon's (Nath.) *Discourse of the Laws from Selden's Notes*, pt. ii., p. 60. (In Lond. Library.)

(1) Matt. Westmon., p. 430.

(2) "Et lxxvii. Walensibus peditibus et vii. constabulariis eorum, qui missi fuerunt in Norweiam," &c. (Mag. Rot., 3, I.; quoted in Grose, i. 170.)—This gives a constable to every eleven men.

then massed into thousands.(1) The military title of the officer commanding these large bodies is not specified; the command was, no doubt, vested in the hands of the officers of high social rank. In the muster-roll of Edward III.'s army which besieged Calais, before quoted, we find:—

		s.	d.
4,022	esquires, constables, centenars, and leaders . .	1	0
5,104	vintenars, and archers on horseback	0	6
4,474	Welsh foot, of whom 200 vintenars, at . . .	0	4

The various descriptions of troops which composed the English armies were: Men-at-arms, comprising knights-banneret and bachelor, with their esquires and followers, and *armati* (2) (as they were termed in Latin documents), an inferior description of mounted men—these formed the heavy cavalry; hobilers, hobiler-archers, and mounted-archers, light cavalry. The infantry was composed of the three great classes of bowmen, billmen, and spearmen. There were also

(1) "Equites in Constabulariis, et Pedites in Centenis et Vintenis." (Rymer, *sub anno* 1324.—"Assignavimus vos ad omnes et singulos homines ad arma et omnes alios homines defensibiles tam hobilarios quam sagittarios arriandos et triandos ut in *millenis*, *centenis*, et *vintenis*," &c. Commission of Array for Wilts, 1484. (Pat. Rolls, 2 Rich. III., m. 20 d., pt. 1.)

(2) The armati appear to have held a position intermediate between the esquire and the archer, and we may infer that they were less fully equipped than the knight and esquire, judging from the rate of their pay. A writ of the year 1360, addressed to the arrayers, assigns to the

	s.	d.	
Knights	2	0	per diem.
Esquires	1	0	,,
Armati	0	6	,,
Archers	0	4	,,

(New Rymer, iii. 478.)

pancenars (probably so called from the armour they wore, the *paunce* or *panzar*) and pavisers,[1] and gynours, who had the charge of the various engines for sieges. In addition, armies were attended by a multitude of non-combatants—artisans and labourers, pressed by the sheriffs, and forwarded at the cost of the King; pioneers, miners, carpenters, smiths, and the various craftsmen, whose services, though humble, were yet essential to the progress of an army, and were torn away by scores from their families and business to encounter the dangers and hardships of a military expedition.[2] In the list of Henry V.'s army we find miners, gunners, armourers, painters, pavilion-men, surgeons, grooms, purveyors, smiths, saddlers, masons, servants of the Royal household, minstrels, carpenters, labourers, shoemakers, bowyers, &c.[3]

Mustering of Troops.

The contingents having been assembled in their various districts, were then marched to the place of general rendezvous. Each constable was allowed 1s. per diem, with a horse 1s. 6d.; each vintenar 4d., and each other foot soldier 2d., while on their march (*veniendo*); and a constable had the same allowance for returning.[4] On their arrival, it was, of course,

(1) "Indenture between the King and Ralph Mascarel, Adam de Edercom, and Gerald de Wigdenthorp, to serve the King in his wars so long as he shall be beyond sea, with ten helmets and ten pauncers." 2 May, 20 Edw. III. (Army and Navy Accounts, Record Office.)—There were also pavisers mounted, who fought as cavalry, and others who acted as *coverers* of the archers and cross-bowmen.

(2) See Rot. Scot., i. 195.

(3) See "Retinue of Hen. V.," in Nicolas's *Agincourt*, p. 387.

(4) *Wardrobe Account of Edw. I.*, p. 242.

necessary that they should be mustered.(1) In Rymer we meet with many instructions for taking muster, some of them as old as Edward III. In the "*Statutes and Ordenances* of Henry V.," it is laid down that "when it liketh the Kinge to take mustres of his hoste, that no man be so hardy to have other men at his musters than thoo that be with him self witholde for the same viage, without fraude, upon payne to be helde fals and reproved, and also to lose his wages and payement that shulde longe to him." (2)

Frauds in musters were repeatedly perpetrated, the muster-masters, probably, making themselves parties thereto. It was brought under the notice of Parliament in 1406, that at the musters at Calais several inexperienced boys belonging to the ships (*qi ne sciavent chivacher*), as well as other persons, had been armed and arrayed, instead of the gallant and competent persons (*vaillantz et sufficientz gentz*), in order to complete the number of the muster. (See Rolls of Parl., 7 and 8 of Henry IV.) In a document *temp.* Henry VII., we obtain an early intimation of the future appointment of lord-lieutenants, where the direction of the military force of the county is committed to a person of high social rank:—"Instructions given to the Kinges Commissioners of Aray and Musters, *by the Erle of Oxenfford,* having auctorite under the Kinges great seall to gader, arreyse, and conducte his said sub-

(1) From the Latin, *monstrare.*

(2) MS. in College of Arms, marked L 5.

jecttes in array to his presence." (21 June, 2 Hen. VII.) (1)

In the reign of Elizabeth, the duty of a muster-master is thus defined by Ralph Smith:—"The muster-master takinge the muster, must have a speciall eye and regarde unto those officers appointed to the leading of men, that they bee men of service, and not chosen without great experience, also sober and of good counsaile; and to see that the souldiers be furnished with armour and weapons as followethe, commandinge them to bee obediente, and truely to keepe all such lawes and ordenances, as by the said lord-lieutenante and his counsaile shalbe commanded, sette downe and appointed bye his authoritie; likewise he is to see how everye captaines bande is furnished, and thereof to make a booke to the treasurer, that paymente bee made to the coronalls and captaines, according to the number of souldiers under every of their bandes." Notwithstanding these provisions, great abuses crept into the practice of mustering the troops. The comparatively modern regulation, by which regiments and corps are mustered every month by the regimental paymaster, and detachments in the respective districts by the paymaster of the district, has superseded the commissary of musters; the pay-lists and muster-rolls are thus made to tally with each other.

Amongst the documents in the State Paper Office is a paper, dated March 16th, 1569, entitled,

(1) *Household Book of Duke of Norfolk*, p. 503; pub. by Roxburghe Club.

"Heads of directions as to the mode of taking musters throughout the kingdom;" and on the 26th of that month, the Queen wrote to certain gentlemen and the sheriff in every shire, appointing them commissioners for taking the musters of men, horses, armour, and weapons, within the jurisdiction of each county. (See also *Talbot Papers*, vol. N., fol. 161.)

Valuation of Chargers.

Another important business on the assembling of an army was the appreciation or valuation of the horses, which, under the contract system, must be valued as soon as the men joined the standard, because if their horses perished during the campaign they were to be replaced or paid for by the King. The value of the horse appears to have regulated the pay of the rider, if we may judge from an ordinance of Philippe de Valois in 1338:—"L' équyer qui aura un cheval de xxx livres, aura par jour vi. sols vi. deniers tournois. Le chevalier banneret, xx sols. L' équyer qu aura un cheval de xl. livres, vii. sols. vi. deniers."(1)

In 1343, 16th Edward III., a commission was issued to Oliver de Ingham, seneschal of Gascony, and Master Walter de Weston, treasurer of the army in that duchy, whereby on account of divers malversations of the King's money, they were directed to make diligent scrutiny before the wages of the men-at-arms were paid, that they have their due appointment of horses and armour according to ancient usage. They are further directed, in concert with the constable and marshal, to cause frequent musters to be made, one at least in every month, that payment should be

(1) *Collections des Ordonnances*, tom. ii., p. 120.

made for the effectives only, without favour; and to avoid the frauds which frequently occurred in the restoration of horses, all those which, according to the custom of war, were to be appreciated, should immediately on their arrival be valued, and marked with some particular mark, by which they might again be known. (1)

This payment appears under the Latin title of *Restauratio* or the French one of *Restour*. In order that the valuation should be—at all events, have the appearance of being—conducted with impartiality, the clerk of the marshal was to act as appraiser on behalf of the owner, against a king's clerk on the part of the Crown. The marshal apparently sat as judge or umpire between them. This particular we learn from a MS. respecting the rights of that office, claimed by Thomas de Brotherton. Many valuations of horses appear in the *Wardrobe Account of Edward I.*, under the head of *Restauro Equorum* (see p. 171). Sometimes the appreciation was made by special commissioners appointed for that purpose. None but war-horses or chargers were appreciated, baggage-horses were not included. The accounts of these appreciations were frequently ordered to be delivered to the office of the Great Wardrobe. Rymer has printed a variety of instances of this appreciation, some of them dating from the reign of Henry I.:—
"To Thomas Grey, soldier-at-arms, for the loss of his horse, slain in the King's service at Lyntenlye, in Scotland, by composition made with him at West-

(1) Rymer, *sub anno.*

minster (11th Edward II.), £18 6s. 8d." (*Wardrobe Accounts, Archæol.*, xxxvi. 325.)

As an additional proof of the assimilation of customs between England and France, we learn from an article quoted by Père Daniel (*Mil. Franç.*, i. 85), "Item, se li Connestable est en guerre pour le Roy, avec le Roy, ou sans lui, il doit faire priser par son Mareschal les chevaux d'armes de luy, de ses compagnons, et de tous les gens de son Hostel; et tel prix comme son Mareschal y met, le Roy luy doit rendre." Horses of high value appear to have had their estimated value marked on their haunches, as: "Huet de Montigny est son cheval brun, bay, estelé, marqué à la cuisse du prix de 200 liv. tournois."

High Constable.

The Lord High Constable was the first staff-officer in English armies, and the seventh great officer of state, subordinate only to the Sovereign in the command of the army. Even when the King was actually in the field, the command of the troops seems to have been vested in this officer; and all general orders were issued in the Sovereign's name and that of the Constable. The office is of considerable antiquity: the title, *comes stabuli*, explains its nature, which was that of commander of the cavalry; and as in that arm lay the principal strength of ancient armies, this officer became naturally commander-in-chief. The dignity was formerly annexed to the Earldom of Hereford, in virtue of the manors of Harlefield, Newnham, and Whitenhurst, in the county of Gloucester, which were held by the sergeanty of being Constable of

England,[1] and it was hereditary in the successive noble families of Bohun and Stafford, and was descendible even to the husbands of females.

The Lord High Constable and the Earl Marshal were formerly judges of the Court of Chivalry, called in Henry IV.'s time *Curia Militaris*, and subsequently the Court of Honour, which was held anciently in the King's hall, and afterwards at the College of Heralds.

The high powers delegated to these functionaries being abused—amongst the complaints exhibited against the unfortunate Richard II., in 1399, was causing his subjects to be taken before the Constable and Marshal of England [2]—a restrictory Act was passed in the 13th year of this reign, in which it was enacted that no plea should be tried before them in their court which could be tried by the common law of the land. An important abridgment of the jurisdiction of this military court occurred in the reign of Henry VI., when an Act was passed (18th Hen. VI., c. 19) transferring the cognisance of the crime of desertion to the civil magistrate. From this period we may date the decline of the authority of the Constable and Marshal's Court, and consequently of the high military powers of the Crown.[3]

Besides the High Constable of England, other High Constables were sometimes appointed—perhaps when circumstances might have prevented his attendance, or when more armies than one were raised and

(1) Blount's *Ancient Tenures*. (2) Rot. Parl., iii. 420.
(3) See Tytler's *Mil. Law*, p. 43, and Appen., ii.

employed at the same time. An instance of this is found in Rymer, in the 26th Henry III., when William de Cantilupe the younger, John de Gray, Philip Basset, and others, were appointed to command the army in Poitou.

By a return made by the officers of the Exchequer to Edward I., it appears that the Constables of England were entitled to receive, in virtue of their office, twopence out of every pound paid by the King to his stipendiary troops, with the army, or elsewhere on his service; and also that he was entitled to the same liveries for his subsistence as the Chancellor and Seneschall—which were, when they eat abroad, "5s. a-day, with one dominical, and two salted semnels,(1) two quarts of claret,(2) and one of ordinary or household wine,(3) with wax and other candles; but if they eat in the palace, they were to receive only 3s. 4d. a-day, two salt semnels, one quart of household wine, and a sufficiency of candles." (Madox, p. 29.)

Edward Stafford, Duke of Buckingham, attainted and executed in 1521, was the last hereditary High Constable of England; since whose death the office has never been permanent, but created occasionally, by the King's commission, for special matters of state, such as the trial of high misdemeanours. The last

(1) This word is printed, by mistake, in Rymer (ii. 191, *an.* 1282), "ii. solidos," instead of "ii. salata." "Siminelli sali" were very different from "siminelli Dominici," which were without ferment, and consisted of the best part of the corn; the former were in use for the hall. (Du Cange, *Siminellus.*)—Strutt's *Horda*, iii. 58.

(2) "Vino claro."

(3) "Et unum sextarium de vino expensali." (See Du Cange.)

instance of this occurred in 1631, when Charles I. appointed Robert, Earl of Lindsay, to be High Constable, in order that he, together with the Earl of Arundel, Marshal of England, should "hear, decide, and bring to final sentence, according to the law and custom of arms and the usage of the *Military Court* of England, the appeal of treason brought by Donald, Lord Reay, against David Ramsay, Esquire; the accused offering to clear himself to the Court of Chivalry, either by combat or as the Court should appoint. The sentence of the Court was, that in the absence of all witnesses, the issue must be determined by duel. The parties having thrown down their gloves in token of assent, the High Constable put the appeal into one glove, and the answer into the other, and folding them together, adjudged, in the name of the Blessed Trinity, the said Lord Reay and David Ramsay to decide their difference by duel, on the 12th of April, 1631, between sun and sun, in Tuttlefields, Westminster, in the presence of the King. This duel, however, was not fought; the King thought fit to recall his commission, and the parties were merely bound over in articles of the peace."(1)

At coronations, in the procession, the High Con-

(1) Rushworth's *Collections*, vol. i., pt. ii., p. 112.—The two last cases in which Wager of Battel was offered in this country occurred in the second decade of the present century; and although these seem to have been merely legal technical affairs, it is not a little curious to find that a remnant of the semi-barbarous mode of trial by single combat should have been lawful so recently as the years 1815 and 1817. (See Sir Walter Scott's *Essay on Chivalry*, and *Notes and Queries*, 2 S., ii., p. 241.)

stable's place of dignity was on the right hand of the person who bears the sword of state. The late Duke of Wellington performed the duties of the office at the coronation of George IV., William IV., as also at that of her present Majesty.(1).

Earl Marshal.

The Earl Marshal, or Mareschal, was the officer next in rank to the Constable, and is an earl by virtue of his office, which no other earl is. The office is of great antiquity, and is said not to have been holden by tenure or sergeanty, as that of Lord High Steward and High Constable were. (2)

The office of Marshal appears originally to have been of a much inferior nature, the person who exercised it being the actual superintendent of the stables, or chief of the equerries, whose duty was to furnish the provender of the horses, and to supervise their management. It is curious to note how that noble animal the horse has ever been connected with the foundation of human importance. In process of time the office grew into high consideration, and the Marshal, subordinate only to the Constable, became the second in command of the armies, and in the absence of the latter supplied his place.

On the abolition of the Constable's hereditary jurisdiction, it became a question whether the Marshal

(1) The original staff of office, the same which was borne by Edward Stafford, Duke of Buckingham, at the coronation of Henry VIII., and used by him in his attendance on that monarch at the famous interview at the Field of the Cloth of Gold, is still preserved in the Castle of Stafford.

(2) The word Marshal, or "Mareschal," is derived from the Saxon —*mare*, a horse, and *schall*, a governor.

(whose office continued to be hereditary), who had hitherto held a joint jurisdiction with the Constable, could exercise, during the vacancies of that office, the whole powers belonging to the Court of Chivalry. In the reign of James I., the question being referred to the Lords of the Privy Council, they decided that the Earl Marshal had all the powers of judicature *per se*. Whereupon the King issued his commission to Thomas, Earl of Arundel, then hereditary Earl Marshal, authorising him to proceed judicially in all cases whereof the Court of Constable ought properly to take cognisance. In the subsequent reign, however, the judges of the Court of King's Bench being consulted, they ruled that "the King must make a Constable *durante beneplacito;* for the Marshal could not take an appeal without him."(1) In such a state of uncertainty with respect to the judicial powers of the Constable and Marshal, it is no wonder that the jurisdiction of the Court of Arms or Chivalry, though never formally abolished, should have fallen entirely into disuse.(2)

It appears that other marshals, beside the Earl Marshal, have been appointed to the joint command of armies. Edward III. appointed two marshals of the army in his expedition to France in 1346.(3) The claims of office were set forth in the MS. of Thomas de Brotherton—before alluded to—and printed in the

(1) Rushworth, pt. ii., p. 107.

(2) Tytler, *Mil. Law*, App. ii. 399.—Spelman, *Gloss., v. Constabularius.*

(3) "Si fit le roi deux maréchaux en son ost, l'un messire Godefrey de Harecourt, et l'autre le comte de Warwick." (Froissart, i. 220.)

Historical Anecdotes of the Howard Family, and also in Grose, vol. i., p. 184.

The office of Earl Marshal has ceased to be military.

Master of the Ordnance.

The Master of the Ordnance was the officer next in rank. This appointment does not, however, appear earlier than 1483, when "Rauf Bigod was appointed to the Mastership of the Ordnance (by Richard III.) during life, with an hundred marks fee for himself, and the wages of 6d. per diem for a clerk, and 6d. for a yeoman, to be paid out of the issues of the manors of Kyrton and Lyndesay, in Lincolnshire, with the knight lyvery of householde." (1) The various departments of the *matériel* of the army, which had hitherto been held separate, were combined under this officer: such as the superintendence of the projectile machines or artillery, and of those artisans (*artillatores*) who furnished the supply of bows and arrows, accoutrements, carriages, &c. (2) We do, however, find that in 1414, "Nicholas Merbury, the *master*, and John Lowth, the clerk of the King's Works, Guns, and other ordnance, were commanded to provide certain smiths and workmen, with conveyance for them."(3)

In a MS. in the Harl. Lib., No. 6,844, giving an account of the establishment of the army dispatched

(1) Harl. MS., No. 433.

(2) See before, p. 162.

(3) "Rex, Dilectis suis, Nicholas Merbury, Magister operationum, Ingeniorum et gunnarum nostrarum ac aliarum ordinationum nostrarum per guerra, et Johanni Louthe, clerico eorundem operationum." (Rymer, iv., p. 159.)

on the expedition to St. Quintin's in 1557, we find the following, referring to this office:—

	Per diem. £	s.	d.
The master of the ordynance	1	6	8
His lieutenant	0	13	4
Master of the carriages	0	10	0
The trenche master	0	5	0
A chaplain	0	1	0
A clerke of th' ordynance	0	2	0
Two clerks	0	2	0
A surgeon	0	1	0
Sixe boweyers	0	6	0
Sixe fletchers	0	6	0
Three carpenters	0	3	0
Three smythes	0	3	0
Three guyders of th' ordonnance	0	3	0
Timber carriage	0	4	0
A drumme	3	0	0
A phife	0	1	0
A hundreth and twentie symyres	1	5	0
Ten halberdyers	0	10	0
Hacquebutters on horseback for the lieutenant	0	6	0
Mr. gonner	0	3	4
Twelve gonners	0	16	0

Another manuscript in the same collection, No. 4,685, entitled "The Order of a Campe or Army Royall, with the Dutie of every Officer belonging to the same, per R. Con. *Milit.*, 1578," describes the duty of the Master of the Ordnance in the field, and will be found copied in Grose, i., p. 190. Another MS. quoted and given *in extenso* in the same work, contains a curious privilege and practice of war: namely, that on the capture of any place, "the master-gunners and their companie" shall have the right to possess the best bell within the place, whether it be in a town, fortress, church, or else-

where, unless it shall be agreed to accept from the churchwardens a composition in lieu thereof. The same custom existed in France, with the exception that the perquisite, with the addition of all metal vessels, fell to the grand-master of the artillery; and the *grand maitre des arbaletriers*, answering to the English master of the ordnance, had a right to all the artillery of the captured place.(1)

The claim was admitted at least to the time of William III., as appears by a warrant transcribed by Grose (2):—

"WILLIAM R.

"Whereas, by our Royal Warrant bearing date the 25th day of February, in the 4th year of our reign, we did authorize and empower the Lieut.-General and principal officers of our ordnance to pay to our trusty and well-beloved Colonel, John Whynant Goor, the sum of £500, in consideration of several broken and unserviceable brass ordnance, &c., found in the towns reduced during the war in our kingdom in Ireland, being a perquisite belonging and appertaining to the said Colonel Goor, and were by him delivered into our magazines for our future service, &c.

"Given at our Court at Whitehall, this 14th day of February, 1693, in the sixth year of our reign.

"By His Majesty's command,

"J. TRENCHARD.

"To our right trusty and well-beloved cousin and counsellor, Henry Viscount Sidney, master-general of

(1) *Mil. Fran.*, i. 527. (2) *Mil. Ant.*, i. 195.

our ordnance, &c. *Memo.* The master-general of the ordnance, his signification upon the above said warrant, dated the 19th day of February, 1693-4."

The claim under the time-honoured tradition of the service that the bells of a captured city belong of right to the officer commanding the artillery of the attack, was set up, probably for the last time, as late as 1807, by Sir Thomas Blomefield. The reply to the application has not been traced:—

"Major-General Blomefield to Lieut.-General Lord Cathcart.

"Mariendahl, 12th September, 1807.

"My Lord,—It being an invariable custom in our service whenever a place capitulates after a siege, to allow the officer commanding the Royal Artillery a claim of the bells in the town and its dependencies, or a compensation in lieu of them, which has twice occurred upon services on which I have been employed, viz., the sieges of the Havannah and Fort Royal in Martinique; I conceive it to be a duty which I owe to my brother officers as well as myself to express my hope that in the present instance it will not be dispensed with.

"I have the honour to be, &c.,

(Signed) "TH. BLOMEFIELD."(1)

The Master-generals of the Ordnance were generally appointed for life; the last who held it so was Sir William Compton, in 1660. Since the Restoration

(1) Vide *Official Catalogue of the Museum of Artillery*, in the Rotunda, Woolwich, by Brigadier-General Lefroy, R.A., F.R.S. 1864.

they have always been appointed "during pleasure," and have usually entered and quitted office with the party to which they were politically attached. They were *ex-officio* colonels-in-chief of the artillery and engineers. The letters patent for this office were revoked in 1855, and its duties vested in the Secretary of State for War. The late salary was £2,000 a-year.

After the disuse of the office of High Constable, the officer commanding in chief was styled Captain-General. Edward, Duke of Somerset, was appointed "Lieutenant and Captain-General of the warres, both by land and sea." This patent is printed in Rymer, vol. xv., p. 174, under a wrong year—1548 instead of 1547. Such was also the case in the army dispatched to St. Quintin's, before mentioned. Next in succession to the Captain-General stands the *Lieutenant-General;* the High Marshal occupying only the third place in rank.

The staff and establishment of the Captain-General were, a secretary, another for the French tongue, two surgeons, a trounche man,(1) ten carriages, for transportinge his baggage, two trumpeters, a drum, a phife, and thirty halberdiers for his guard.

The staff and suite of the Lieutenant-General were, a chaplain, a surgeon, three carriages, a trumpetter, a drum, and fifteen halberdiers.

The High Marischall had a master of the campe, a chaplain, a surgeon, three carriages, a trumpetter, a drum, and fifteen halberdiers.

(1) Probably a truncheon-man or tipstaff. Quoted from Grose, i. 197.

The next officer in rank in this army (1557) was the General of the Horsemen; his staff, a lieutenant, a chaplain, a surgeon, four commissaries, a trumpeter, and fifteen halberdiers.

The infantry was commanded by an officer styled Captain-General of the Footmen, who had for his staff, a lieutenant, a serjeant-major, six wyfflers,(1) a chaplain, a surgeon, three carriages, a drum, a fife, and fifteen halberdiers.

The title of general is not of very ancient date in the English armies; we do not find it till about the reign of Henry VIII., after which we meet with the term "captain-general of the horsemen," and "captain-general of the footmen," in armies commanded by persons bearing only the title of general. The same army sometimes had a captain and lieutenant-general, and also a captain-general of the horsemen or

(1) Whifflers are sometimes mistaken for fifers; they were officers who lead the way in processions. In this sense it is used by Shakespeare:—

> "The deep-mouth'd sea,
> Which, like a mighty whiffler 'fore the king,
> Seems to prepare his way." (*Hen. V.*, act v., chorus.)

Minsheu defines them to be club or staff bearers.—Grose, in his *Provincial Glossary*, mentions whifflers as "men who make way for the corporation of Norwich, by flourishing their swords."—By a MS. *temp.* Elizabeth, quoted by Grose, in *Mil. Ant.*, i. 198, headed "A Charge for every Wyffler," they appear to have been employed as drill instructors.—Stowe, describing a training of 4,000 men selected from the City Companies, says, "All these to be trained up under expert captains, with serjeants of the bands, *wiflers*, and other necessarie officers." (*Chron.*, p. 702.)—"Then were there appointed cxx. Wyffelers to conducte the fyrst battell, and cxx. for the second, and cxx. to order the rereward." (Muster of the Citizens of London. 31st Henry VIII. Vide *Archæol.*, xxxii.)

foot. An instance of this occurs in the army sent to St. Quentin's.

Officers of the same rank did not always command according to seniority. This may be seen in some regulations issued in the 34th Elizabeth on the embarkation of 2,000 footmen and 100 horse, to be sent from the Low Countries into France: "And because it standeth with some good order, that all the several captains, with their bands, may orderlie take their voyage, with one consent, and agree amongst themselves, considering, as they are captaines, they will everie of them accompt themselves *equal one with another*. Sir Robert Sidney and you shall let them know, that *it is thought convenient* that Sir John Pooley, Knt, should take the charge of the shipping of all their forces, and that they shall for their passage, and during the time untill they should land, be advised by him; and at their landing, Sir John Pooley shall have knowledge of Her Majesty's pleasure from hence, under whose commandement both he himself and all the rest shall there serve in France." (1)

After the formation of the standing army, officers of cavalry took rank on detachment according to the dates of their commissions, but those of infantry according to the seniority of the corps to which they belonged; so that a captain of the first regiment, though but just appointed, would have commanded a captain of any other regiment, of whatever standing in that rank. This order, however, did not affect

(1) Rymer, *sub an.* 1592.

subalterns on detachment, who were to take precedence according to their commissions, and not the priority of their companies.(1)

The Sergeant-Major-General, sometimes styled major of the camp or field, was what is now called major-general, as serjeant-major of a regiment formerly denoted the officer now styled major.(2) There were, however, specific duties attached to the office of serjeant-major-general, which resembled those of an assistant adjutant-general and a brigade-major. According to the MS. (Harl., 4,685) before quoted, he "was to receive at the hands of the high marshall the whole number of footmen that be in the army, that he might know what number he hath of every kind of weapon, and so set the order of the battaills accordingly. He was to appoint unto every captain their special places within every battaile. He was to appoint the forlorn hope in the front, and his own place in action was in the fore front of the battail, and to lead the same."

In the *Art of Warre*, translated from the French by John Cruso, 1639, it is laid down: "The Sergeant-Major-General receiveth from the Generall a plat of the form which he will give to the armie, the disposition and placing of the members of it, Cavallrie, Infanterie, Artillerie; the order which they should observe in fight, with commission signed by the

(1) *Abridgement of English Military Discipline*, published by authority. 1680.

(2) Our Leiftenant Collonel was cashiered" (from the French *casser*), "and Sergt. Major Quarles employed in his room." (*Archæol.*, xxxv., p. 315.)

Generall to dispose it in that manner." (p. 139.) In *A Treatise of Modern War*, written and translated by the same hands, published 1640, we read: "The Sergeant-Major-Generall must command the Colonels; but that they may the readilier obey him, he ought to be taken out of the Colonels: as also the Sergeant-majors of brigades ought to be taken out of the Sergeant-majors of regiments." (p. 169.)

Treasurer.

The Treasurer, often called the High Treasurer of the army, was an officer of great authority. He was paymaster-general, and had a general supervision of the expenditure of the different departments of the army. "He ought to be," says Ralphe Smith, "a man of greate wisdom, and experte in martiall affaires, for that hee is to speake his opinion in all offices, the payment of all highe officers—namelye, captaines and corronells; likewise he shall receive from the generall the true number of horsemen and footmen within the army, and to make a perfect booke every moneth," &c.(1)

The High Harbinger was the Quartermaster-General of former times. His office is very minutely described in the MS. before quoted (Harl. 4,685), and is copied in Grose, i. 202.

Provost-Marshal.

The Provost-Marshal seems to have been formerly an officer of greater rank and authority than at present. A detail of his duties is given in the same MS., a transcript of which will also be found in Grose, i. 204, containing much curious information. This officer in the British army has the rank of

(1) MS. *temp.* Elizabeth. See Grose, i. 201.

captain; formerly he appears to have been on the same footing with the sergeant-major.

"If it chance that the enemy and you join in battaile together, then is the office of the Provost Marshall to serve in his owne person with the footmen, in the rank with the Serjeant-Major."

Scout-Master.

The Scowt-master was another ancient staff officer, whose duties are defined in the same manuscript, and copied in Grose, i. 211. Mention is often made of scouts in Froissart as "*les coureurs,*" and in the arrangement of armies a detachment was detailed for this especial duty, "*lesquels seront ordonnés pour courir et découvrir les ennemis.*"(1). In 1378, Sir John Arlington with his English, and Messire Guillaume des Bordes with the French garrison of Montbourg, took the field. Arlington, having arrayed his men-at-arms, "ordonna ses coureurs." Desbordes, on his part, had done the same. "And thus they marched forward on both sides, till at length the scouts came so near together that the English scouts saw and fully examined the French, and also the French scouts discovered and examined the English; and so each party retired to its own troops, reporting the true position of the enemy."

In the list of the staff of the Duke of Somerset's army at the battle of Musselborough, Sir Richard Lee, Knight, appears as Scout-master.

In the Scots' rebellion of 1639, Charles I. complained "that the rebels could march with their army, and encamp, and he not know a word of it.

(1) ii. 232. *An.* 1382.

The Lord General was sent for, and said he made choice of Mr. Roger Widdington, the scout-master, as being a native, and best acquainted with the country." (Nalson, i. 232.)

Carriage Master.

The Carriage Master-General or Waggon-Master, "hath supream authority," says Markham,(1) "over all waggons, carriages, sledds, and the like, and forseeth that they march orderly, without cloying up the high waies." Sir James Turner is still more explicit, and his remarks are sufficiently curious to warrant their transcription:—

"Every regiment, whether of horse or foot, should have a waggon or a baggage-master, and where the establishment of the prince doth allow him no pay, the colonel should order a sufficient serjeant or corporal to exercise that office by turns; these are to see that every officer's baggage, from the highest to the lowest, march accordingly to the dignity and precedency of him to whom it belongs, whether it be carried on waggons, carts, or horses; but these regiment baggage-masters are not to suffer the baggage of the regiments to march till they have received their directions from the waggon-master-general, when and in what manner it shall be done. The waggon-master-general's charge is extremely toylsome, when an army marcheth; every night after the army comes to quarter, and every morning before it march, he must attend the major-generals of the cavalry and infantry, and receive his orders from them, if the whole army march together; but if the

(1) *Souldier's Grammar*, p. 128.

cavalry march apart, then the major-general of the foot gives the waggon-master his instructions, particularly a list in what order the army is to march; for ordinarily, regiments and brigades charge by turns, and their baggage must march in the same order as they themselves do (unless some extraordinary occasion alters it); the prince, or in his absence, the commander-in-chief, his coach or coaches, with his waggons, go first; then the whole train of artillery behind it; the coaches and waggons of all the general officers, according to their dignity; after them, the waggons of that brigade that hath the van for that day, and so all the rest in order, according as the regiments or brigades march. If any waggons or baggage-horses press to be before these, behind whom the waggon-master-general has ordered them to march, he may safely make prize of them, owne them who will. When the waggons come to a heath, or a champaign field, the waggon-master should order the waggons to draw up, two, four, or five in rank, and to drive in that order so long as the ground permits them to do so, and this saves time, and makes dispatch; and when they come to strait ground, they are to fall off, by the right hand, in that order wherein they were before; the same course he is to take with baggage-horses.

"The baggage-master-general is allowed to have two lieutenants; so that if the army march three severall ways (as sometimes it doth), himself and his two deputies serve to marshall the baggage of all the three, and so forth. He himself is constantly to be

there where the general of the army and train of artillery either marcheth or quartereth.

"Many times waggons are commanded to be burnt and destroyed; sometimes all the women and most of the baggage are left behind at some garrison or other place, on an emergency. In some of these occasions officers go fair to lose their waggons and some of their moveables.

"Women who follow an army may be ordered (if they can be ordered) in three ranks, or rather in classes, one below another; the first shall be of those who are ladies, and are the wives of the general and other principal commanders of the army, who for the most part are carried in coaches; but those coaches must drive according to the quality of them to whom the ladies belong, and as the baggage of their husbands is appointed to march by the waggon-master-general. The second classe is of those who ride on horseback, and these must ride in no other place than where the baggage of the regiment to whom they belong marcheth, but they are very oft extravagant, gadding here and there, and therefore, in some places they are put in companies, and have one or more to command and oversee them, called in Germany, Hureweibles; I have seen them ride, keep troop, rank and file, very well, after that captain of theirs who led them, and a banner with them which one of the women carried. The third classe is of those who walk on foot, and are the wives of inferior officers and souldiers; these must walk beside the baggage of the several regiments to which they belong, and over

them the several regiment-marshals have inspection. As woman was created to be a helper to man, so women are great helpers in armies, to their husbands, especially those of the lower condition, neither should they be rashly banisht out of armies; sent away they may be sometimes for weighty considerations; they provide, buy, and dress their husbands' meat when their husbands are on duty, or newly come from it; they bring in fewel for fire, and wash their linens; and in such manner of employment a souldier's wife may be helpful to others, and gain money to her husband and herself; especially they are useful in camp and leaguers, being permitted (which should not be refused them) to go some miles from the camp to buy victuals and other necessaries.

"At the long siege of Buda, by Spinola, it was observed that the married souldiers fared better, looked more vigorously, and were able to do more duty than the bachelors, and all the spite was done the poor women was to be called their husbands' mules, by those who have been glad to have had such mules for themselves. Among all these kinds in well-ordered armies, there are none but those who are married; if there be any else upon examination made by the minister, priest, or consistory, they are put away with ignominy, at least should be, conformably to all articles of war."(1)

Captain of Pioneers.

The "Captaine of the Pioners" is the next officer in succession whose duties are detailed in the fore-

(1) The wives of soldiers received probably but little consideration, but unmarried women following an army were treated with great

going MS. Pioneers were not formerly taken from the ranks of the army, but were labourers pressed and equipped for the service; they are termed by the chroniclers of the thirteenth century, "*fossores castrenses.*" The name is from the French *pionnier*, contracted from *piochnier*, from *pioche*, a pick-axe; *piocher*, to dig. Several instances occur in Rymer of writs to sheriffs, directing them to furnish miners, or other labourers, from their respective districts. Mention is often made of them in Froissart. They were employed in great numbers in the English and French armies, an important part of their duties being to clear a way for the passage of troops and carriages. In 1359, Edward III. marching from Calais, " encore y avoit en l'ost du roi d'Angleterre jusques à cinq cents varlets, atout pelles et coignées, qui alloient devant le charroy et ouvroient les chemins et les voies, et coupoient les épines et les buissons pour charrier plus aise."(1) The French army in 1382, on its march to Flanders, was preceded by 1,760 *ouvriers* on foot, to level roads, cut down hedges and bushes, and fill up hollows. (2) Anciently it would appear that the

severity. In the "Ordinances of War" made by the Earl of Shrewsbury (Add. MS. 5,758, fol. 209), there is this cruel clause:—

"*For Women that usen Bordell, the whiche lodge in the Oste.*

"Also that no manner of man have, ne holde, any comon woman within his lodging, upon peyne of losing a monthe's wages; and if any man fynde or may finde any comon woman lodginge, my saide lorde giveth him leve to take from her or theim all the mony that may be founde upon her or theim, and to take a stafe and dryve her oute of the oste and breke her arme."

(1) Froissart, i. 417.
(2) *Ibid.*, ii. 232.

soldiers themselves had to perform these duties, and the author of *The Complete Captain* regrets the effeminacy that had crept into the army in his time. "We are become so delicate now-a-days," he writes, "as we will hardly carry our victuals, much lesse a week's victuals about us. . . . There be captains of our time which will have an unbridled number of pioners, and say, that it were better to cut off some regiments of souldiers, and to take pioneers in their stead, to take away all employment from the souldiers of working in the ground, for that they in these times cannot be brought to be subject to such labours as the ancient Romanes were." (1)

These useful operations were looked down upon by the soldiers. Shakespeare makes Othello say:—

> "I had been happy, if the general camp,
> Pioneers and all, had tasted her sweet body,
> So I had nothing known." (Act iii., sc. 3.)

Soldiers were sometimes punished with being degraded to pioneers. In the *Lawes and Ordinances of*

(1) Formerly soldiers were allowed to have boys to attend them, the high rate of pay doubtless enabling them to avail themselves of this assistance. They were called *garciones* and *goujats;* and in the French army, so late as the beginning of the sixteenth century, one of these *goujats* was allowed to every two soldiers.—In Froissart, "Un grand hutin commença entre les garçons des Hainuyers et les archers d'Angleterre" (i., p. 22); and "Les garçons recouvroient de pieux et de verges pour lui leurs chevaux" (*Ibid.*, p. 30).—In Cruso's *Militarie Instructions for the Cavallrie* (1632), the cuirassier "is to have a boy and a nagge, to carry his spare arms and oat sack, and to get him forage." (ch. xx.)—In *A worthy Speech spoken by his Excellence the E. of Essex, in the head of his Armie before his arrival at Worcester* (pub. Sept. 29, 1642), "That no trooper or other of our souldiers shall suffer his *Paddee* to feed his horse in the corne." The meaning of this term is not easy to ascertain; perhaps they were Irish boys.

Warre, by the Earl of Essex, 1642, there is the following order "Of duties in Action:"—

"A regiment, or company of horse or foot, that chargeth the enemy, and retreats before they come to handy-strokes, shall answer it before a Council of War; and if the fault be found in the officers, they shall bee banished the camp; if in the souldiers, then everie tenth man shall bee punished at discretion, and the rest serve for pioners and scavengers, till a worthy exployt take off that blot." (p. 28.)

Pioneers in the sixteenth century appear to have been something more than labourers, and to have formed an integral portion of the army. The great need of their services is obvious from their numbers. In the quotas of certain Hundreds to supply men in 1559, we find a levy of 200 soldiers and 267 pioneers.[1] They were also dressed in uniform and armed:—

"*The furniture of a Pion*$^{r.}$—His cassocke watchett [*pale blue*], one yarde three quarters, viij^{s} ix^{d}; his shirtte, ij^{s} ix^{d}; his dublett white, v^{s}; his hose of white, two yardes, v^{s} iiij^{d}; making & lyning, xvj^{d}; his showes, ij^{s}; garters & pointes, vi^{d}; his scull & capp, iij^{s} iiij^{d}; his sworde, dagger, and sworde girdle, viij^{s}; money in his pursse over & besydes such money as her Matie shall allow for Coate and Conducte money, x$^{s.}$—Suma of the furniture of a Pion^{r,} xlv^{s} v$^{d.}$" (Harl. MS. 1,926, art. xvii., fol. 34 *b*.)

The Proviant Master-General was at the head of

Commissariat.

[1] Harl. MS. 1,926, art. viii., fol. 286.—See also vol. i., p. 375, of this work, the number of pioneers employed in preparation for the Armada.

the commissariat department. The office is of no great antiquity, dating probably from the reign of Elizabeth. It does not appear that kings before this period contracted to supply food for those who engaged in their armies; the high rate of pay was, doubtless, intended to cover all charge of subsistence. It appears, however, to have been customary for the indented troops to be found in victuals at the King's charge so long as they were on ship-board, in proceeding to, or in returning from, the scene of operations. (1) Sometimes it was made a subject of special agreement. In an "Indenture between the Earl of Salisbury and William Bedyk, one of his retinue (Rymer, ix. 258), the said William shall have *Bouche de Courte* for himself and one Valette, on both sides the sea at all times," which, according to Blount, is "to have meat and drink scot free—*avoir Bouche à la cour*, to be in ordinary at Court." Sometimes it extended only to bread, beer, and wine. This was anciently in use, as well in the houses of noblemen as in the King's Court, as appears by an Indenture, which he cites, dated 29th March, 6 Ric. II., 1383. Bishop Kennett explains *Bouche of Court* to be an allowance of diet or provisions from the King or superior lord to their knights, esquires, and other retinue that attended them in any military

(1) "Et auera as coustages de n're dit Sr. le Roy mesme le Conte eskippeson et reskippeson (*i.e.*, shipping and re-shipping) pur lui mesmes et ses ditz gens leur hernoys chiualx et *vittailles* cestassauoir pur vynt et quatre de ses propres chiualx pur quatre chiualx de ch'un des ditz homes darmes et pr. vn chiual de ch'un des ditz arch's." ("Indenture of Military Service;" from Mr. Hunter's *Agincourt*, p. 12.)

expedition. Thomas, Earl of Lancaster, retained Sir John de Evre to serve him with ten men-at-arms in time of war, allowing them *Bowge of Court,* with livery of hay and oats for their horses.(1)

A custom afterwards prevailed, perhaps introduced in the economical reign of Queen Elizabeth, of supplying the army with rations, in part payment of their wages. The officer at the head of this department was the *Proviant Master-General.* Such officers had been in existence before in a more limited capacity, as "purveyors," &c., for the supply of the King's board and that of his household. Royal personages do not seem to have stinted themselves on a campaign, for they carried along with them to the field the whole of their domestic establishment, as may be seen in "The Retinue of King Henry V."

The Commissary-General's office is described by Sir James Turner in the following terms:—

"Since money is generally scarce in the wars, insomuch that soldiers cannot receive their wages duly, let us see what allowance of meat and drink (ordinarily called proviant) princes allow their soldiery, to furnish which every army should have a general proviant-master; and truly I conceive him to be an officer as necessary and useful, if not more, in the fields, where mostly our modern armies are entertained with proviant, as either a general, commissary, or a treasurer. His charge is to provide victuals—corn, flesh, wine, bread, and beer; he hath the inspection of them, and should see them equally

(1) Note to Nicolas's *Agincourt,* App., No. ii., p. 11.

and proportionately divided to the regiments, according to their several strengths, for which purpose he should have all the rolls and lists by him, which his secretaries should carefully keep. He hath no power to sell any proviant, under what pretence soever, without the general's express warrant. All mills where the army comes are under his protection, and he is obliged to protect them. He hath the ordering of all the magazines for victuals; and to him belongs the care of seeing the garrisons and fortified places sufficiently provided with such meats and drinks as are most fit to preserve: these are—corn, grain, and meal of several kinds; stock fish, herrings, and all other salted fishes; salted and hung fleshes, especially beef and bacon; cheese, butter, almonds, chestnuts, and hazel-nuts; wine, beer, malt, honey, vinegar, oyl, tobacco, wood and coal for firing, and as many living oxen, cows, sheep, and swine, hens and turkies, as can be conveniently fed; for which purpose, as also for horses, he is to provide straw, hay, and oats. This general proviant-master hath under him a lieutenant, a secretary, a clerk, a smith, a waggon-master and a waggon-maker, a quarter-master, and some officers who are called directors.

"There are few princes who have not their particular establishment for their proviant both in field and garrison, as well as for money; the order whereof commonly is this: they allow so much bread, flesh, wine or beer, to every trooper and foot souldier, which ordinarily is alike to both; then they allow to the officers, according to their dignities and charges,

double, triple, and quadruple portions: as to an ensign four times more than to a common souldier, a colonel commonly having twelve portions allowed him. The ordinary allowance for a souldier in the field is, daily, two pound of bread; one pound of flesh, or, in lieu of it, one pound of cheese; one pottle of wine, or, in lieu of it, two pottles of beer. 'It is enough,' cry the souldiers; 'we desire no more; it is enough, in conscience!' But this allowance will not last very long; they must be contented to march sometimes one whole week, and scarce get two pounds of bread all the while, and the officers as little as they, who, if they have no provisions of their own carried about with them, must be satisfied with commis-bread and cold water as well as the common souldier, unless they have money to buy better entertainment from sutlers. I have known captains give a very great demonstration of their patience, and their affection to their master's service, by satisfying their appetites with water and very coarse bread one whole summer and part of the next winter."

The custom of paying in kind instead of money led, doubtless, to numberless official extortions; while of the distressed condition of the troops the contemporary writers give frequent and pitiable accounts. Sir John Smythe severely rebuked the system:—

"And now, in the same later time, when all things should by all reason have been reduced into order and discipline, because the nature of the warre was altered from mercenary and voluntary to princely authority—I mean the summer before the Earl of

Leicester went over—our such men of warre that had served divers yeares before in those parts, devised a newe invention, never heard nor read of before amongst men of warre, but onely upon some great lacks and extremities, and that was that their souldiers, insteade of pay with money, should be paid in provand, which was bread and cheese, and other such victuall, of the best, cheape, and basest sort, and that taxed by measure, saying that it was not convenient that their souldiours should receive their own payes, because they knew not how to lay out their money, but that they would spend it idly: which simplicity and ignorance, if it had been in them (as it was not), they and their officers, by good instruction, should have reformed the same. But such covetous men of warre, under the pretence (as though their souldiours had been either naturall fooles or children) did, contrarie to all militarye order, put the greatest part of their souldiours' pay into their own purses, allowing them great scarcity of provand. By which means it come to passe that diverse thousands of their souldiours in those plentiful countries, partly by hunger and partly by evil lodging, and altogether by the small care and misuse of our such men of warre, did perish. Besides that, great numbers of such their sicke and starved soldiers, by order of the Earle of Leicester, were in those partes embarked and transported into Essex and Kent, and other partes of England, to recover health; of which foresaid great numbers of miserable and pitiful ghosts, or rather shaddowes of men, the Essex and

Kentish carts and carters (that carried them) can testifie; of which scarce the fortieth man escaped with life."

Forage-Master and Judge-Marshal.

There was a Forage Master-General and a Judge-Marshal, since called Judge-Advocate, who, Sir James Turner says, "ought to be a grave and judicial person, who fears God, and hates vice, especially bribery. A lawyer he should be, in regard most articles of war have their rise from law, and many cases chance to be avoided in courts of war, where no military article is clear, but must be determined by the civil law, or by the municipal laws of the prince to whom the army belongs."

Corporal of the Field.

The last staff officer was the Corporal of the Field, who appears to have discharged functions similar to those now performed by a major of brigade. Shakespeare makes mention of the office:

> "And I to be a corporal of his field."
> *Love's Labour's Lost*, iii. 1.

Surgeons.

MILITARY SURGEONS are seldom mentioned in the records of our ancient armies. The disproportion between the troops employed and the persons engaged to attend to the injuries they received in action is very remarkable. The fact was, that the poorer soldiers, when seriously wounded, were discharged with a small gratuity to find their way home as best they might: a practice founded on the economical principle, which prevailed as late as the sixteenth century, that "it cost more to cure a soldier than levy a recruit."(1) When, however, we consider the

(1) Harte's *Gustavus Adolphus*, ii., p. 322.—The following curious

low state of the healing art, and the painful remedies applied (a medical writer of the sixteenth century recommends for the "curation" of gun-shot wounds, "to cauterise them with the oil of elders, mixed with a little treacle"),(1) it is pretty certain that this, under the circumstances, was also the most humane course to be pursued. Nor can we wonder at the contempt which surgery was held in this island down to the beginning of the sixteenth century,

medical bill, contributed by a correspondent of *Notes and Queries*, is printed in the pages of that useful periodical (2 S., iii. 65). It will be perceived that the plentiful supply of drugs did not prevent the patient from falling sick again the ensuing year:—

Sept., 1588.

The Note of Charges of Jno. Roberts, Surgeon.

His Charges for the curing of Mr. James Gerald in the Tower.

	s.	*d.*
Imprimis, P and for 2 bottells of serope of 3 pints a peace at	xij	iiij
Item, 1 unce of the Beste Rubarbe at	ix	viij
Item, 3 Bottells of Diet Drinke of a pottell a peace at . .	xiij	iiij
Item, 2 Quilts perfumed for his hed at	x	vj
Item, 2 Pourgations at	vj	viij
Item, 4 ounces of perfeumed Lossengis for his eare . . .	x	vi
Itm, 4 unces of serope for his nostrils at	viij	viij
Itm, 4 unnces of unguent for his eare at	vj	vj
Itm, 4 unnces of Implaster for his eare at	v	viij
Itm, 4 unnces of Pilles of Mastichini at	viij	x
Itm, 2 drames of pillelucies at	v	viij
Itm, 1 drame of Trossies de terra sigilata	ij	vj
The holle somme of chargis is at	v^{li}	vj^{d}

I stande to y^r^ hono^rs^ rewarde for my paines taken in curing of Mr. James' Garolde at y^r^ honors pleasure Yo^r^ Lordshippes to comãnde duringe liffe. J^o^ Robertes, Sourgon . . . . *s.* xxix *d.* vj

Totalis vj^{li}.

Again for the quarter ending Julie, 1589 . . . 10 .

(1) John de Vigo.—See Grose, i. 225.

when it was practised indiscriminately by barbers and farriers.

The position of a soldier in the event of a dangerous wound must have been dreadful, and thousands doubtless died from bad surgery, or no surgery at all, especially when we find that "a famous chirurgion at Turin" proposed such a panacea as the following as a balm for gunshot wounds:—"Two young whelps, one pound of earth worms, two pounds of the oil of lilies, six ounces of the terebinth of Venice, and one ounce of aqua vitæ; in my presence he boiled the whelps alive in the said oil, until the flesh deserted from the bones; afterwards he took the worms, having before killed and purified them in white wine, to purge themselves of the earth, which they have always in their bodies. Being so prepared, he boiled them also in the said oil, till they became dry; this he strained thorow a napkin, without any great expression; that done he added thereto the terebinth, and lastly the aqua vitæ, and called God to witnesse that this was his balme, which he used in all wounds made by gun-shott and in others which required suppuration; withall praying me not to divulge his secret."

From numerous entries in the Wardrobe Accounts of Edward II., it appears that it was customary to send disabled soldiers and others in the King's service to a religious house, as to an hospital, to be there supported either for a time, or during life. This was called "having *garisona* in a monastery." (1)

We cannot help wondering at the innate love of a

(1) *Archæol.*, xxxi. 343.

military life, or the utter insensibility—whichever it was—that induced men to flock to the standards under such circumstances, and to spare neither life nor limb to do to the very utmost the duty for which they had engaged. The wretched existence of a soldier serving in Ireland has already been alluded to. The usual hardships of his condition were aggravated there by disease. Dysentery, principally caused by the scarcity and bad quality of his food, was a terrible scourge of the English forces serving there in the sixteenth century. Scarcely any grain was grown then in Ireland, the troops were consequently supplied with biscuits from England ; and, as contractors were no more honest at that time than they have proved themselves to be in modern days, the bread provided was of the most wretched quality. The natural dampness of the Irish climate was then much increased by the dense forests that covered the greater part of the island, rendering intermittent fevers as great pests as dysentery. Moreover, from the dirtiness of the towns, the plague broke out with great virulence in some places in 1574.

In the Record Office are preserved some letters addressed to Burghley, Lord Treasurer of England,(1) by a protégé of his, Barnaby Googe, "a scholar, philosopher, and poet," whom straitened circumstances had driven from the position of a smart Gentleman Pensioner at the court of the maiden Queen to take service in Ireland, and whose sufferings under the unaccustomed privations of such a campaign may be

(1) *Vide* Index, Hamilton's *Calendar of Irish State Papers.*

imagined. The writer gives us an insight into the amenities of garrison and camp life there. His first letter, addressed to his patron after his arrival, runs thus: "I am nott able as I would to wryt unto your Lordshyp, ffor my body hath nott well borne the sudayne change off my dyett. Besydes my comynge syck from sea, mye lodgynge being the ground, and the barbarous relief I have hadd hath brought me to the country disease (*dysentery*) . . . The contrey is indyfferent good, iff yt might bee only peoppled. . . . The town (*Carrickfergus*) is ffylthy, and ffyt to breed syckness, as it is already vysyted, butt wyth a lyttell charge myght bee made a handsome thyng."

About a fortnight later he writes from Drogheda: "I have, my Lord, thank God, recovered my health, havyng no other physytyon nor ffrende to looke to but hym. I was contynually sycke, and verey syck till I came to lye in Camp. Butt after my ffirste harde lodgynge, and drinking of waater out of a rusty Skull, mye sycknesse, unacquainted with such a diett, badd me farewell, and syns I thank Chryst I was never therwyth trobled."

It is possible that the rust of the iron "skull" may have acted as a salutary tonic, or another reason for his recovery may be found in the fact that at that time there was only one apothecary in all Ireland, a Thomas Smyth, of Dublin, to whom, in 1566, was granted a concordatum to receive "the yearly sum of one day's pay of the Lord-Deputy, and whole army in Ireland, and also twenty shillings of every sworn councillor, in order to encourage the

said Smyth to continue in the discharge of his ministry in Ireland." (1)

The earliest notice of paid medical men to attend the army, appears to be in the Wardrobe Account of the 15th Edward II., A.D. 1322. (2). Many of the Welsh corps have an officer styled Medicus, but whether by that term a physician or surgeon is meant, seems doubtful. It is curious that none of these "Medici" are charged to the English levies, and in the Welsh they seem to bear no proportion to the numbers; a corps of 1,907 men having only one, and another 968 having two. The wages of all, except the two last named, were 6d. per diem each; those which were raised on the King's land in Cardiganshire had only 4d. each per diem, which was the pay of the lowest foot-soldier.

In the next reign, in the "Roll of the Persons at the Siege of Calais," (3) in 1346, only one surgeon is

(1) See some interesting remarks on the "Life of Barnaby Googe," in *Notes and Queries*, 3 S., iii. 182.

(2) *Archæologia*, xxvi. 340.

(3) Harl. MS., No. 3,968.

Edwardus Walliæ Princeps	Princeps	1
	Banneretti	11
	Milites	102
	Armigeri	264
	Sagittarij equites	384
	Sagittarij pedites	69
	Capellani	1
	Chiurgij	1
	Vexillarii	5
	Vinarii	25
	Pedites	480
	Clamatores	1—1376

The total is thus given in the MS.—"Clamatores" or Cryers; these are officers not met with elsewhere.

named, who seems to have been part of the retinue of the Prince of Wales.

Henry V. engaged "M[r]. Nich. Colnet, phisitian, to serve him for one whole year, in the voyage then to be made (A.D. 1415) either to the Duchy of Guyenne or to France. He was to bring with him three archers. If the expedition went to Guienne, he was to have for his own wages forty marks, and twenty marks for each of his archers for the whole year; if to France, for his own wages 1s., and for each of his archers 6d. a day, with regards." (1) Forty marks a year, or one shilling a day, as the case might be, was the pay of an esquire in the same expedition, so Colnet's position was not a bad one.

Henry also engaged Thomas Morestede and William Bradwardyn as surgeons. The former is distinguished as the King's Surgeon, and agreed to attend himself, and to provide fifteen persons, of whom three were to be archers, and the others "hommes de son mestier." (2) He petitioned to be allowed money to provide necessaries for his office, and a proper number of persons and carriages. The King granted him twelve persons and "i. chariot and deux somers."

A petition to Henry VI. from an old soldier, named Thomas Hostell, who was wounded at Harfleur, and served at Agincourt, is preserved, and is not inappropriate to be copied here:—

"To the King our Sovereign Lord,

"Beseecheth meekly your poor liegeman and

(1) Rymer, ix. (2) *Ibid.*, p. 252.

humble orator, Thomas Hostell, that in consideration of his services done to your noble progenitors, of full blessed memory, King Henry the Fourth, and King Henry the Fifth, whose souls God assoil, being at the siege of Harfleur, there smitten with a springolt (1) through the head, losing his one eye, and his cheek-bone broken. Also at the battle of Agincourt, and after at the taking of the carracks on the sea, there with a gad of iron his plates smitten asunder and sore hurt, maimed, and wounded, by means whereof he being sore feebled and debruised, now fallen to great age and poverty, greatly indebted, and may not help himself, having not wherewith to be sustained nor relieved, but of men's gracious almasse, and being for his said services never yet recompensed nor rewarded, may it please your high and excellent grace, the premises tenderly considered of your benign pity and grace, to relieve and refresh your said poor orator, as it shall please you with your most gracious almasse at the reverence of God, and in work of charity, and he shall devoutly pray for the souls of your said noble progenitors, and for your most noble and high estate." (2)

To the army dispatched to St. Quintin's in the reign of Philip and Mary, in 1557, consisting of 500 heavy armed horse, 500 light horse, 4,000 foot, and 200 pioneers, with a complement of officers and a train of artillery, were attached 57 surgeons,

(1) Espringale. (See before, p. 167.)
(2) MS. *Donat.* (4,603), art. 100, in B. Museum; printed in Ellis's *Original Letters*, 2nd S., i. 95.

two of them belonging to the staff of the general, one to the lieutenant-general, one to the high-marischal, one to the general of the horsemen, one to the general of the infantry, and one to the master of the ordnance. The remainder was distributed among the horse, light horse, and infantry, in the proportion of one to every hundred men. The daily pay of a surgeon of horse was 2s.; of light horse, 1s. 6d.; and of infantry, 1s. No surgeon is charged for either the ordnance or pioneers. (1)

From the MS. of Ralphe Smith, previously quoted, it would appear that the army surgeons of his time (*temp.* Elizabeth) received a weekly stoppage from the men, in addition to the King's pay, and that they also wore a distinguishing belt over their shoulders as a protection for their vocation when on field service, a circumstance rendered unnecessary, Grose adds, in his day, by the apparatus of bandages, &c., carried by surgeons when on active duty:—

"That every souldier, at the paye daye, doe give unto the surgeon 2d., 'as in tymes past hath beene accustomed,' to the augmentation of his wages; in consideration whereof, the surgeon oughte readilie to employ his industrie uppon the soare and wounded soldiers, not intermedlinge with any other cures to them noysome. . . . Such surgeons muste weare their baldricke, whereby they may be knowen in the tyme of slaughter; it is their charter in the field."

In the estimate for the army of 25,000 foot, 5,000 horse, and twenty pieces of artillery, proposed to be

(1) Harl. MS., 6,844.

sent to the Palatinate in 1620, there is a liberal complement of medical officers, but no allowance or provision whatever for medicines or an hospital, although there is a very minute detail of almost every other necessary store; and many of the most experienced military men of the day were called in to assist at the deliberations of the Commissioners.

It was proposed that there should be—

"In the general's trayne two physicians, at 6s. 8d. per diem each, two apothecarys at 3s. 4d., and two surgeons, each at 6s. 8d.

"Every regiment of foot consisted of twelve companies of one hundred and fifty men each, and had one chief surgeon, at 4s. per diem, and another surgeon to each company, at 1s. per diem.

"Among the general officers of horse is one chief surgeon, at 4s. a day.

"To every troop, which was to consist of an hundred men, one surgeon, his daily pay 2s. 6d.

"To the ordnance and pioneers, one barber surgeon, at 2s. per diem, and two under-barber surgeons, at 6d. a day each."

In the *Art of Warre* (1), under the head of "The Barber Chirurgeon," we find :—

"In everie companie there must be a chirurgeon, to trim the souldiers, to attend them which are sick, to dresse the wounds of such as are hurt (being as an assistant to the chirurgeon of the regiment), having proper remedies to stench the bloud, to

(1) By The Lord of Praissac. Englished by I. C. (Cruso), Cambridge. 1639.

hinder inflammations, and to asswage the pain." (p. 132.)

Chaplains.

The spiritual care of soldiers was, fortunately, better considered than were their physical necessities in early times, and we find a large attendance of clergymen in the train of our ancient armies. Occasion has often occurred to refer to their presence in the course of this work.

Henry V.'s ecclesiastical staff was very complete; in addition to an almoner and sub-almoner, he carried over to Harfleur with him—

Mast[r] John de Bordin, Clerk, D[r.] in Laws,
with 1 Clerk, and 2 Archers.
Richard Hals, Clerk, with 1 Clerk and 2 Archers.
M[r.] Esmon Lacy, Dean of the King's Chapel.

John Burnell, and John Mildenhale . .	Chaplain of the King's Chapel.	
M[r.] Stephen Morpath, with other . . .	Chaplains	13
Frere Alain Hert . Frere J[n] Brotherton .	with other of the Revestry(1) .	14

In the army of St. Quintin's, the great officers had each in their suite a chaplain. His pay was, however, the same as the ensign, the surgeon, the sergeant, and the drummer and fifer—viz., one shilling a day.

In a list of an army for Ireland under Lord Mountjoy, in 1599, there is a great increase in pay. The Lord Deputy's doctor of physic receives £5 per week, his chief chaplain the same, and ten other preachers 30s. and 40s. the week. In Charles I.'s

(1) The place where the vestments and other articles for the service of the altar were kept.

army for Scotland, in 1639, there are "two Chaplains at 6s. 8d. each, and two physicians at ditto."

Sir James Turner says, "The Preacher, be he Priest or Minister, whether Lutheran, Reformed, or Roman Catholic, his office is well enough known, there is much respect to be paid him, and the laws of war provide severe punishment to those who offer any injury or offence to his position or charge. His duty is to have *curas animarum*, the care of souls, and it is well if he meddle with no other business, but makes that only his care."

CHAPTER VII.

FORMATION OF REGIMENTS—NUMBERS COMPOSING THEM—COLONEL, ITS DERIVATION AND DUTIES—CAPTAIN—ENSIGN—SUBORDINATE OFFICERS—REFORMADO—GENTLEMAN OF A COMPANY—PALATINATE ARMY OF JAMES I.

THE term "regiment," denoting a body of soldiers divided into troops or companies, and united under the command of one officer, or as Sir James Turner expresses it, "a certain number of companies joined in one body under one head," was introduced into the English service in the sixteenth century; the precise period when is uncertain, but the same military author writing in 1683, says, "the word regiment was not a hundred years old." Shakespeare in an anachronism, makes use of the term in the plays of King John (1) and Richard III.(2) Regiments varied in strength, some of them consisting of six companies, some eight, some twelve, and some of twenty. Ten became the ordinary number, as it has continued to the present time. Regiments sometimes were 3,000 strong, each company consisting of 300. The regiment dispatched to the Palatinate by James I. numbered 2,200 of all ranks. The composition of troops and companies was precisely the same three hundred years ago as it is at present. In the army sent to St. Quintin's, in 1557,

(1) Act ii., sc. 1. (2) Act v., sc. 3.

each troop was officered by a captain, a lieutenant, and a standard-bearer; each company by a captain, lieutenant, and ensign. In 1588, the standard-bearer of the cavalry is termed "a guidon," and in 1598, in the pay-lists of Essex's army in Ireland, a "cornet." In this latter army, a troop consisted of fifty privates, besides the three commissioned officers, and each company of two sergeants, one drummer, one surgeon, and ninety-four men.

In 1639 Charles I. raised an army to proceed against the Scotch, in which each foot regiment was 1,500 strong, which was thus distributed: the colonel had a company of 200 (in addition to his command), each lieutenant-colonel 150, and there were ten companies of 115 each.

Each troop consisted of a captain, lieutenant, *coronet*, three corporals, two trumpeters, one quarter-master, a *chirurgeon*, and eighty horsemen.(1)

Colonels.

The rank of COLONEL and Lieutenant-Colonel appears about the time of regiments. In Elizabeth's Irish army of 1588, we find the term "Colonel-General," "Colonel," and "Lieutenant-Colonel." From the rate of pay, we gather that the Colonel-General was a higher rank than the Captain-General, an inverse ratio to that of the nomenclature assigned to general officers of modern date.

In France, infantry regiments were instituted in 1558: cavalry was not regimented until 1635. The staff officers of infantry consisted of a Colonel-General, a Mestre de Camp, and a Sergeant-major.(2) The

(1) Rushworth. (2) *Mil. Fran.*, t. ii., liv. ix., p. 46.

former office and title was afterwards abolished, and the Maître de Camp became Colonel of the regiment; in the cavalry the title of Maître de Camp was retained by the commander of the regiment. "The Spanish Colonells," says Sir Roger Williams, "are termed Masters of the Camp." (*A Brief Discourse of Warre*, 1590.)

As to the derivation of the word "Colonel," we probably received it from the Spaniards. It was *Coronell* and Crownell([1]) here at first, and *Coronello* is still the Spanish for that rank. Some have derived it from *Colonna*, a column,([2]) but our pronunciation of the word is confirmatory of the first supposition. The root is probably the Latin *Corona*, whence Coronarius.

"The office of a colonell," says Ward,([3]) "is very honourable, and a place of great consequence in the army; wherefore he ought to bee a grave, experienced souldier, religious, wise, temperate, and valiant. Hee that hath his commission first is to be accounted the eldest, and is to take place both in quarters, and in the march, according to the date of his commission. He hath under his command two special officers; his lieutenant-colonell and sergeant-major. His place in the battell is various, according as he shall be commanded by the generall, but most usuall he takes his place before the right wing of his owne regiment. Hee is to cause so many of his regiment

([1]) Sir J. Turner, in his *Pallas Armata*, pub. 1627, calls it "Crowner." (p. 17.)

([2]) Minsheu.

([3]) *Animadversions of Warre*, pub. 1639.

as are to relieve the watch, morning and evening, to be drawne in parade before the head of the quarters, where divine duties are to bee performed by the preacher amongst them. Every Sabbath day he is to have a sermon in his tent forenoon and afternoone, and every officer of his regiment is to compell his souldiers that are freed from the guard to repaire thither; and that no sutler shall drawe any beere in the time of divine service and sermon," &c.

In addition to the pay of his rank, the colonel also drew that of captain, he retaining the emolument derived from the pay of a company, which was stronger than the others, and was under the charge of a subaltern officer, styled Captain-Lieutenant,(1) and ranked the first in the regiment.

The Lieutenant-Colonel had also a similar privilege.

Up to the reign of Queen Elizabeth, if not later, a colonel received allowances according to his social rank. Thus we find in "The Rates for Entertainment of the Officers of the Regiment," in 1588:—

	£	s.	d.
The colonel, being a nobleman, per day .	1	0	0
He being a knight, or nobleman's son .	0	13	4(2)

Captain was a term in general use in the Middle Ages to denote the chief or head (*caput*) of a body of men. Since the institution of regiments, it was used

(1) This officer took rank as captain by an order in 1772, and by a subsequent regulation succeeded to the first vacant troop or company. (Vide James's *Mil. Dict.*, v. *Captain.*)

(2) Report on the "Arrangements," quoted before, *temp.* Elizabeth.

in a restricted sense to specify the commander of a company of foot or a troop of horse. Until the reign of George I. each company had a colour, the object being that one company might be easily distinguished from another; and the captain originally had the privilege of having his arms, or some other device, at his option displayed upon it.(1) Ward recommends that, "if a souldier transgresse, the captain ought not to beat him, but to send him to the provost-marshall, to have irons laid on him: by beating of a souldier, a world of hatred will be stirred up, and happily *private* revenge; a captain ought to carry himself in such a way, that his souldiers may both feare and love him; too much familiarity breeds contempt, and too sterne a carriage begets hatred."

The Ensign, so called from his bearing the ensign, as in the cavalry the cornet from having in charge the cornet or standard,(2) was the lowest commissioned officer. Sometimes the former was styled Ancient, probably from the French *enseigne.* The word frequently occurs in Shakespeare: Iago was Othello's ancient.(3) "An ensigne, being the foundation of the company," says Ward, "ought to be endued with valour and wisdome, and to equal his

(1) Subsequently each company had its fixed badge. Mackinnon gives a list of those in the Coldstream Guards in his history of that regiment. (p. 392.)

(2) From the French *cornette.*—"We have taken about five colours and cornetts, and lost about five or six colours, but never a cornett.'—*Civil War Charles I.* (Ellis's *Orig. Lett.*, 2 S., vol. ii., p. 302.)

(3) Act v., sc. 1.

superior officers in skill, if it were possible; the honour and reputation both of the captaine and souldiers depends upon the welfare of the colours, and contrarily there can be no greater dishonour than to lose them. After any company is cashired" (*i.e.*, disbanded or broken), "if the ensigne hath behaved himselfe honourably, the captaine ought to bestow the colours on him as a favour." Captain Thomas Venn, in a chapter "On Ensigns or Colours, their Dignity, and the Disgraces to which they are liable,"(1) gives much curious information; his remarks are reproduced in Grose, vol. ii., Appen. iii.

Subordinate Officers.

Of subordinate or non-commissioned officers, the Sergeant is the chief. His duties are detailed by Ward and Sir James Turner. The latter states that a sergeant had power to correct soldiers with his halberd and sword, and commit to prison any soldier.(2)

The Corporal, or more properly Caporal, is the next in rank; his title is of Spanish or Italian origin, he being the *cabo* or *capo de escadra,* or chief of his squad or squadron. Sir James Turner writes it "caporal." Daniel (*Mil. Fran.*, ii. 70) says these officers were styled *Caps d'Escadre* in the Ordonnances of François I., and in those of Henri II., *caporals.*

The Lance-Corporal (in French, *caporal breveté*) is one who acts as corporal, but with the pay of a private, and is the first step from the ranks. They

(1) *Military and Maritime Discipline.* (1672.)
(2) *Pallas Armata*, p. 220.

were sometimes called Lancespesades, or ancespesades. The term *lance* is equally applied to sergeants. According to Sismondi, *Lancie spezzate* were men-at-arms who sought employment independently, not belonging to any band of *Condottieri*;[1] but the term seems applied also to those who had become disarmed or dismounted in action, and attached themselves temporarily to some troop or company until they might recover their position, and being superior to the rank and file, did duty as junior non-commissioned officers.[2]

"Reformado," a term often met with in the fifteenth and sixteenth century, referred to a disbanded officer, one whose corps had been reduced.

"Gentlemen of a Company" is a term that frequently occurs among the military writers of this period. They appear to have been persons of social rank superior to the private soldier, and were looking forward to their appointment of officers. "Gentleman of a Company," says Turner, "is he who is something more than an ordinary soldier: hath a little more pay, and doth not stand centinel. In French he is called *Appointé*; and with the Germans he is called *Gefreuter*. They march and watch with arms; they go common rounds and patrouilles; and near an enemy they are to be the forlorn centinels, whom the French call *perdus*." (*Pall. Arm.*, p. 218.)

In James I.'s army designed for the Palatinate, each infantry regiment was to consist of thirteen

(1) *Hist. des Républiques Italiennes*, ix. 322, note 2.

(2) See *Pallas Armata*, p. 219.

companies: the colonel's company to have 192 private men, 4 gentlemen, 4 corporals, 2 sergeants, and 2 drummers; the other companies to consist of 144 privates, 3 gentlemen, 3 corporals, 2 sergeants, and 2 drummers.

The military term, "private," of course, denotes a soldier without rank, the same as in common parlance it refers to any civilian not holding office.

CHAPTER VIII.

MILITARY MUSIC.

In all nations, from the earliest times, music has been the accompaniment of feats of arms. It serves the twofold purpose of inspiriting men for conflict, and of directing them in the performance of military duties. The noisiest instruments are naturally the best adapted for this purpose. The mode in which sounds operate is mysterious; but it is clear that nature has connected certain emotions with them, and we have but to go into our streets to witness the effects produced by

> "The shrill trump,
> The spirit-stirring drum, the ear-piercing fife."

The Trumpet is of the most remote antiquity. As early as the Exodus we read of "the voice of the trumpet exceeding loud." (ch. xix. 16.) To jump to a comparatively modern event, we find the horn and its varieties doing duty at the battle of Hastings:—

> "Dez ke li dous ost [*les deux osts*] s'entrevirent,
> Grant noise è grant temulte firent.
> Mult oïssiez *graisles* soner,
> E boisines è cors corner."—*Roman de Rou*, line 13,135.

The Boisine was a wind instrument of consider-

able effect, according to an ancient Romaunt quoted by Roquefort(1) :—

> "Il faisoit terre trembler
> Des busines et des taburs."

It was made of brass, "Ces buisines d'arein resonent;"(2) and we may infer that it was not straight, "Ces buisines et cors croçus."(3) Roquefort concludes it to have been a trumpet, and derives it from "*buccina;*" but it is distinguished from the trumpet—

> "Mainte bosine et mainte trompe."(4)

An illustration of the battle-horn of the period, of the common semi-circular form, occurs in the Harl. MS., No. 603, fol. 23. The trumpet is found, though in a monument of somewhat later date, on the inscribed slab of "Godefroy le Trompour," preserved in the library of the London Guildhall, and engraved in Boutell's *Christian Monuments* (pl. i., p. 100). An example of the straight trumpet again occurs on the monumental brass of Sir Roger de Trumpington, executed about 1290, where it is borne as an heraldic charge on the shield, doubtless an allusion to the knight's name.(5)

In England some estates were held on a cornage tenure, to blow a horn in case of an invasion, gene-

(1) *De l'état de la Poésie*, p. 118.
(2) *Ibid.*
(3) *Ibid.*
(4) *Ibid.*
(5) In the parish church

> "At Trumpington, not fer from Cantebrigge,"
> *Chaucer*, "*Reve's Tale.*"

rally on the Scottish borders. The Barony of *Burgh-on-the-Sands,* in the county of Cumberland, was anciently so held. "Rogerus de Hesam tenet duas carucatas terræ, per servitium sonandi cornu suum quando Rex intrat et exit comitatum Lancastriæ." (Blount.) The Nigel family held their land at Bernwood, Bucks, in right of the *Borstal Horn* given to their ancestor by Edward the Confessor.

The graisle (perhaps from *gracilis*) was probably of a more slender form.

The infernal concert employed by the Scots to frighten the English soldiers of Edward III. has already been noticed;([1]) how, by the simultaneous blowing of great horns, and by howling afterwards all together, one would have believed that all the devils of hell were there. Under the year 1338, Froissart goes into musical details, and records how the bass, the treble, and the tenor commingled their horrors, to intimidate the Bishop of Durham and his army:—"Et vous dis que Escots ont un usage que, quand ils sont ainsi ensemble, les hommes de pied sont tous parés de porter à leurs cols un grand cor de corne à manière d'un veneur, et quand ils sonnent tous d'une fois et montent l'un grand, l'autre gros, le tiers sur le moyen, et les autres sur le délié, ils font si grand' noise, avec grands tabours qu'ils ont aussi, que on l'ouit bien bondir largement de quatres lieues angloises par jour, et six de nuit; et est un grand ébaudissement entre eux et un grand effroi et ébahissement entre leurs ennemis."([2])

([1]) Vol. i., p. 298. ([2]) *Chron.*, ii., p. 737.

Froissart also informs us how orders were made known by the sound of the trumpet. "Au premier son de sa trompette ou s'appareillât, au second on s'armât, et au tiers son on montât à cheval et partit."(1)

The drum, doubtless so called from the assimilation of the sound, was most likely an Oriental invention, introduced by the Crusaders into Europe, or possibly by the Moors into Spain. It is frequently mentioned in the accounts of the first Crusade, and is introduced in the romance of *Richard Cœur de Lion.*

> "Tambours beten, and trumpes blowe."
> (See Warton's *Hist. of English Poetry*, i. 165, note.)

When Edward III. and his queen made their triumphal entry into Calais in 1347, they were greeted by a grand military concert, composed of "trompes, de tambours, de nacaires, de chalemies et de muses." (2)

The nacaire was a drum of some sort, perhaps a kettle-drum, the name derived doubtless from the *Naqarah* of the Arabs. "Quidam nacaria baculabant, magnum sonum facientes" (*ad an.* 1343).(3) Chaucer gives us the word too, in his description of the tournament in the *Knight's Tale:*

> "Pipes, trompes, *nakeres*, and clariounes,
> That in the bataille blowen blody sounes." (l. 2,512.)

The performers on these instruments were called minstrels, and they formed part of the household of our early kings. In an account of the public expen-

(1) i. 533.
(2) *Ibid.*, i., p. 273.
(3) Du Cange, *in voce* Nacara.—"Nacchera strumento simile al Tamburro que si suono a cavallo." (*Dict. della Crusca.*)

ditures made in the fifth year of Edward I., there is a payment to one named Robert, styled the King of the Minstrels, being the chief of them, apparently for military services.([1]) And in the fourth of Edward II., Janino la Cheveretter, who is called La Tregettour,([2]) Roger the Trumpeter, and Janino le Nakerer, all of them king's minstrels, received sixty shillings from the King for their performances.([3])

Henry V. had a band of minstrels in his retinue, who embarked with him in his expedition to Harfleur. They were assigned xij*d.* each per diem. "John Cliff, Ministral et autres xvii. ministrals," to serve the King in Guienne or elsewhere. Some of them bore the names of the instruments upon which they played (see Nicolas's *Agincourt*, and Rymer's *Fœdera*, ix. 260):—

John Cliff.
Thomas Norys Tromper.
William Baldewyn.
John Michel.
Panel Trumper.
Peut Trumper.
Richard Pyper.
Thomas Haliday.
Wauter Haliday.
Meysham Pyper.
Browne Pyper.
Snayth Fydler.
William Langton.
Thomas Haldiberd.
William Halliday.

In the muster of the Citizens of London, 31 Henry VIII. (before mentioned), "Before ev'y standard or banner was appoynted one dromslade at the least."

([1]) "Regi Roberto ministrallo, scutiferi ad arma commoranti ad vadia Regis, capit per diem 17 denarios." (MS. Cott., *Vesp.*, c. xvi.)

([2]) Cheveretter, or bagpiper; from *chevre*, a bagpipe, and *tregettor*, a juggler.

([3]) Liber de Computis Garderobæ. (MS. Cott. Lib., *Nero*, c. viii., fol. 82.)

Two drummers were allowed to every company of one hundred men, and so on in proportion to the strength of the company. Side-drums were used by infantry and dragoons. Kettle-drums were employed by cavalry; they were, however, a later introduction in the English service, and appear to have been a novelty when Sir James Turner wrote in 1685—"There is another martial instrument," says he, "used with the cavalry, which they call the kettle-drum; there be two of them which hang before the drummer's saddle, on both which he beats." They are not ordinary: princes, dukes, and earls may have them with the troops which ordinarily are called their life-guards. So may generals and lieutenant-generals, tho' they be not noblemen." (*Pallas Armata*, p. 236.)

Drummers were expected to be intelligent, as they were often employed to carry messages between hostile armies. The chief beats of the drum formerly used by the infantry were a *call*, a *troop*, a *preparative*, a *march*, a *battaile*, and a *retreat*.(1) These were subsequently termed the *general*, *reveillé*, *assembly* or *troop*, *taptoo*,(2) *chamade*(3), &c.

Drum-majors do not appear to have been universally admitted in the English army till about the

(1) *Militarie Discipline, or the Young Artilleryman*, by Lieut.-Col. William Bariffe. London, 1643.

(2) Since abbreviated to *tattoo*.—"This word Tapheu, or Taptoo, is High and Low Dutch, and signifies, 'No more drink to be tapp'd or sold.' Ten o'clock at night is a proper time for it." (*Pallas Armata*, xxi. 302.)

(3) A parley.

latter end of the reign of Charles I. Sir James Turner denies altogether their existence "here at home." "There is," says he, "another inconsiderable staff officer in most armies, yet necessary enough in all regiments of foot, and that is the drummer-major; the French call him colonel drummer. In some places he gets a third more pay than other drummers, but here at home we acknowledge no such creature." (*Pallas Armata.*)

Notwithstanding this, the drum-major is mentioned by Ward(1) and Venn,(2) and his duties defined; possibly some regiments which had served abroad might have adopted the appointment.(3) In the pay of a regiment of foot in the Parliament's army, printed in *Mars his Triumph*, 1661, "1 drum-major in the colonel's compy." receives 1s. 6d. per diem.

The Fife.

The fife is said to have been introduced by the Swiss. Mersenne, a learned French philosopher, who wrote *Harmonie Universelle* in 1636, calls it "*tibia Helvetica*." Sir James Turner calls it the "*Allamaine whistle.*" In an ordonnance of Francis I. of France, in 1534, each band of 1,000 men was to have four *tabourins* and two fifes;(4) and therefore, according to

(1) *Animadversions of War.*

(2) *Military and Maritime Discipline*, p. 193.

(3) Up to the time of William III. corporal punishments were executed by the provost-martial and his deputies; after that they were carried into effect by the drummers. What sounds like a curious instruction appears on the records of the Coldstream Guards, "The Drum-major to be answerable that no cat has more than nine tails." (Mackinnon, p. 203.)

(4) *Memoires de Du Bellay*, lib. iv.—*Milice Franç.*, ii. 333.

precedent, we may infer that this instrument was introduced shortly afterwards in the English service. In the muster of the citizens of London, 31st Henry VIII. (1540), we find "droumes and ffyffers." In the engraving from the Cowdray picture (Soc. Ant.) of the Encampment at Portsmouth in 1548, a fifer and a drummer are seen marching at the head of a detachment. One of the drums has the royal arms painted on it. In the list of the English army employed at St. Quintin's, a trumpet was appointed to each cavalry troop of 100 men, and a drum and fife to each company of foot of like number. Besides these, as has already been shown, a drum and fife made part of the suite or retinue of the great officers.

Shakespeare speaks of the "vile squealing of the wry-neck'd fife" (*Merchant of Venice*, ii. 5), but this, *per syncope*, refers to the musician, and not to the instrument. Barnaby Rich, in his *Aphorisms*, A.D. 1618, observes that "*a fife* is a *wry-neckt musician*, for he always looks away from his instrument."

The selected companies of the City of London, in 1585, were to be provided with "armour, ensigns, drums, *fifes*, and other furniture for the warres." (Stowe, *Chron.*, p. 702.)

Markham devotes the 5th Epistle of his 2nd Decade entirely to an account of the uses of "Drummes and Phiphes."[1] In a *brochure* by J. B., entitled *Mars his Triumph, or the Description of an Exercise performed the xviii. of October*, 1638, *in Merchant-Taylor's Hall, by certain Gentlemen of the Artillery Garden, London,*

[1] *Five Decades of Warre.*

the notes of tunes for the phife and drum are given: "The Posture Tune," "the Falling-off Tune," and "the Almain Tune for the Motions."(1) In the *Souldier's Accidence*, A.D. 1643, he says, "The phipher (if there be more than one), the eldest shall march with the eldest drumme." (p. 13.)

In Sandford's Coronation Procession of James II., the fifer is seen marching in front of the drums of the Guards.

After this date, the fife appears to have fallen into disfavour as a military instrument, and even to have been discarded from our armies. Sir James Turner observes, "With us any captain may keep a piper in his company, and maintain him too, for no pay is allowed him—perhaps just as much as he deserveth."

Grose (ii. 43) asserts that the fife was restored to the army about the year 1745 by the Duke of Cumberland, who re-introduced it first in the Guards;(2) "it was not, however, adopted," says he, "in the marching regiments till the year 1747. The first regiment that had it was the 19th, then called Green Howards, in which I had the honour to serve; and well remember a Hanoverian youth, an excellent fifer, being given by his colonel to Lieutenant-Colonel Williams, then commanding that regiment at Bois le Duc, in Dutch Flanders."

(1) Bound up in B. Mus. with Bariffe's *Military Discipline*.

(2) "One morning, when a fifer and drummer were row-de-dowing to a newly-married couple, at the Sun-and-Horse-Shoe, at the opposite house to Nollekens's, Mrs. Nollekens observed that her father, Mr. Welch, used to say, that *fifing* boys were first introduced by the Duke of Cumberland." (*Nollekens and his Times*, by J. T. Smith, i. 342.)

Fifes were probably restored to military service in the year indicated. Whether the Duke of Cumberland had the merit of it, is not so easy to determine. It does not appear in his general orders,(1) though frequent mention is made of the drum. Fifers do not appear in the pay-lists of the Coldstream Guards, in Mackinnon's *History*, till 1797, when two fifers are charged in the company of Grenadiers.

With respect to the assertion that the 19th was the first regiment of the Line to organise a corps of fifers, we cannot discredit it, unless we believe that Grose wilfully perverted a fact that must have been patent to his personal knowledge. A claim of priority in this little particular has been set up for the Royal Regiment of Artillery, on the strength of a manuscript written by Colonel Forbes Macbean, of that arm, who states that "the first fifers in the British service were established in the Royal Regiment of Artillery, at the end of the war (1748), being taught by John Ulrich, a Hanoverian fifer, brought from Flanders by Colonel Belford, when the allied army separated."(2)

As a corroboration of Grose's accuracy on this point, it may be stated that as Lieut.-Colonel Williams, of the 19th, according to Cannon's *Records*, was killed at the battle of Val, in July of that year (1747), the Hanoverian youth must therefore have

(1) Printed at the end of his Memoirs, in Sime's *Military Guide*. 8vo. (United Service Library.)

(2) *Memoirs of the Royal Regiment of Artillery*.—The battalion guns of the 19th Regiment were commanded by Macbean, then Lieutenant, at Roccour, 30th Sept., 1746.

been given to the 19th before "the allied army separated."

Hautboy.

After the Restoration, another instrument appears with the drum—the hautboy. It was used in the infantry and dragoons, and the Horse Grenadier Guards (a corps which served on foot, as well as on horse).

The hautbois (*oboe,* Ital. and Span.) seems to have been a French invention. According to Mersenne, there were two kinds of hautbois used in France—those called of Poitou, which were on a bass key; and the hautbois *proper,* on a treble. The latter resembled a large flute, except that it had a mouthpiece. According to the illustrations of this instrument given in the above-named work (p. 295), it appears to have been like a large flageolet or clarionet. Moreover, the author states that the hautbois gives a sound louder than all the other instruments, except the trumpet (p. 303), and, consequently, was well adapted as an accompaniment to the drum, and for military purposes, which an instrument shaped like the modern oboe, with its deep bass tones, could never have been.

While on the subject of military music, it will not be uninteresting to give a description of a regimental band of the last century. It is contained in an extract of a letter by the late Mr. W. J. Mattham, innkeeper, of Lavenham, Suffolk:—

"We have had four companies (?) of the West Middlesex Militia quartered upon us for three days, consisting of three officers and forty-nine men, who had the best band I ever heard,—'tis worth men-

tioning to those who are lovers of superior music. It consisted of five clarionets, two French horns, one bugle-horn, one trumpet, two bassoons, one bass drum, two triangles (the latter played by boys about nine years old), two tambourines (the performers *mulattoes*), and the clash-pans by a real *blackamoor*, a very active man, who walked between the two mulattoes, *which had a very grand appearance indeed.*"

In the *Abridgment of the English Military Discipline*, 1686, "the Hoboys are to be on the right of the drums." In 1715, "the drummer's suit and surtout of the Coldstream Guards amounted to £54 3s. each, and a Hautbois' suit to £39 6s. 8d. In 1785, an allowance of £172 4s. 6d. per an., for the state clothing of the hautbois and drummers, was added to the estimates on account of that regiment, which allowance, curiously, still continues." (Mackinnon, *App.*, p. 330.)

Hautbois appear to have been retained in the Guards longer than in other corps. About the year 1759, according to Grose, the dragoons exchanged them for trumpets. The bugle became generally adopted by Light Infantry since its formation in 1656.

A hautbois is seen in Hogarth's "Enraged Musician."

CHAPTER IX.

PAY OF TROOPS.

WE have but little information in the early periods of English history respecting that important element in the organisation of armies—the pay of the troops. We know that mercenaries, native or foreign, were constantly kept on foot, and that the feudal troops, if retained in the field beyond their forty days' compulsory service, were then at the charge of the King, but the contemporary writers have seldom particularised the items of military pay; a circumstance to be regretted, as they would have thrown much additional light on the usages of past times, and materially have assisted us in forming a comparison between ancient and modern rates of subsistence. Even where we do attain to figures, it is a matter of considerable difficulty to determine the amount which a sum of money at any remote period represents at present value. Two difficulties immediately offer themselves:—

1. Variation in coinage, for although, since the time of William the Conqueror, the proportion between the pound, the shilling, and the penny seems to have been uniformly the same as the present, yet the same names do by no means correspond with the same

quantity of precious metal, and therefore the nominal shilling of one period does not represent in value the nominal shilling of another.

2. The commercial value of silver,(1) dependent on the amount of specie in circulation, in proportion to the abundance of commodities whereby the purchasing power of money is regulated.

Dearness and cheapness are, of course, mere relative terms; when money is plentiful with reference to commodities and labour, they are said to be dear, and *vice versâ*.

In addition, the change of manners must be taken into consideration; the progress of civilisation having converted what were once considered luxuries into necessaries, and created wants which formerly were unknown.

Henry II., in 1159, raised £180,000 in scutages for his expedition to Toulouse.(2) Upon this circumstance Hume makes the following remark: "The sum scarcely appears credible, as it would amount to much above the rent of the whole land. Gervase is indeed a cotemporary author; but Churchmen are often guilty of strange mistakes of this nature, and are commonly but little acquainted with the public revenue. This sum would make

(1) The earliest English gold coin in the British Museum is of the reign of Henry III. A *floren*, so called because first coined by the Florentines, was issued by Edward III., in 1337, at the value of 6*s*.

(2) Hoc anno (1159) rex scutagium de Anglia accepit, cujus summa fuit centum millia et quater viginti millia librarum argenti." (Gervase of Canterbury.)

£540,000 of our present money." (*Hist. of England*, n. P., vol. i.)

Now hear Lyttelton on the subject: "The scutage levied in England for the war of Toulouse was £180,000, which, computing the quantity of silver contained in these pounds, and the value thereof in those days compared with the present, is equal to two millions seven hundred thousand pounds sterling." (*Hist., Henry II.*, vol. ii., p. 104.)

Hume multiplies the sum by 3, which is about the difference in the value of the metal at the time he wrote. The pound troy, or the 12 oz. of metal of which English silver coins are made, contains 11 oz. 2 dwts. of pure silver, and 18 dwts. alloy. According to Folkes's Table of English Silver Coins, the value of this £1 in money, in 1796, was £2 18s. 1½d. But Hume makes no allowance for the purchasing power of money at that date, and according to all one can gather, commodities were then ten or twelve times cheaper than they are at present. Lord Lyttelton multiplies by 15, in which we may presume he intended to include the difference in the price of silver and the altered value of commodities.

Assuming 15 to be a fair multiple for comparative calculation, we cannot help being staggered by such a statement as the following:—Fitzstephen (a contemporary historian) says "that a dish of eels served up for Becket's table cost five pounds sterling (*centum solidis sterlingòrum emptum*)." He adds that "it was the talk of all the country." And no wonder, for multiplying the cost price by 15, will make the dish

of eels amount to £75 of present money! We must agree with Lord Lyttelton, that "such a price exceeds all belief,"(1) and concur in the opinion expressed by Mr. Macpherson, that "the arithmetical statements of the best historians of the Middle Ages are seldom correct, owing partly to their neglect of examination, and partly to blunders of transcribers."(2)

Thomas à Becket, with a view of assisting King Henry in 1159, is said to have carried over to France 700 knights, all of his own household, and to have given each one three shillings a day for the keep of their horses and esquires. The knights dined at the Chancellor's table.(3) Making use of the multiple 15, the product is £2 5s. of modern money. This gives us a strong idea of the monopoly of wealth in those days. In addition to these, he hired, at his own charges, 1,200 knights and 4,000 stipendiaries to serve under him for forty days.

In 1205, under King John, each knight was to receive two shillings a day.(4) As an assistance in forming a comparative estimate, the average price of wheat in this year was 15s. 5d. per quarter of money of that time, according to Bishop Fleetwood's tables.(5)

In a curious document entitled "The Roll of Expenses of King Edward at Rhuddlan Castle, in Wales," in the tenth and eleventh year of his reign,

(1) Note to Lyttelton, Henry II., p. 10.
(2) *Annals of Commerce*, i. 423.
(3) *Vita S. T.*, by Fitzstephen.—Giles' edit. *Patres Ecclesiæ.*
(4) *Rot. Pat.*, 55.
(5) *Chronicon Preciosum.*

A.D. 1281-2, we obtain more ample details of military pay. It is printed in the *Archæologia*, vol. xvi. :—

A knight received	12 pence a day.
An esquire	12 ,, ,,
A constable of cavalry . .	12 ,, ,,
,, of foot . . .	6 ,, ,,
A captain of twenty . . .	4 ,, ,,
A crossbowman	4d. and 2d.
An archer	2d.

We cannot, however, form a just estimate of the *status* of the soldier, unless we ascertain how other employments were paid. The above-quoted document supplies several items of civil labour. Master-carpenters received 12d. per diem; their constables, 8d.; overseers of twenty carpenters, 6d.; ordinary carpenters, 4d.; master masons, 6d.; ordinary masons, 4d. and 3d.; mowers, 1½d.; spreaders of hay, 1½d. and 2d. By this table we perceive that the lowest grade of foot-soldier was on a par with the agricultural labourer, a petty officer with an ordinary carpenter, and the esquire and knight no better off than the skilled mechanic. These rates included the subsistence of the individuals, with the probable exception of the knights, and perhaps the esquires, whose table was generally found at the expense of the King.

Now as to commodities. The average of wheat may be taken at 12s. a quarter, or 1s. 6d. a bushel. The labourer, therefore, at 1½d. a day, or 9d. a week, could buy half a bushel or two pecks of wheat with a week's wages; the archer, at 2d. a day, three pecks. At the present time, we may fairly take the average

wages of an agricultural labourer at 12s. a week, and the price of wheat at 56s. a quarter, or 7s. a bushel. A labourer, therefore, could now buy more than a bushel and a half of wheat with his week's wages.

A bullock, we are told, cost 8s. 6d. in this year; a hog, 2s. 6d.; a pig, 6d.; a goose, 3½d.; a sheep, 1s.(1) These prices may afford some collateral assistance, but as the weight of these commodities is not given, we can form no just estimate of their approximate value.

In the Wardrobe Account of the same reign, 28th Edward I., A.D. 1300, published by the Society of Antiquaries, we obtain important information respecting the military establishment. The department of the wardrobe was very extensive in those days. It comprised the payment of the military and naval expenses, as well as the civil and domestic.

It appears that the rates of pay of the stipendiary cavalry did not commence till after the muster and appreciation of their horses—"quo die equi sui fuerunt appreciati"—marching allowances (afterwards termed conduct or prest-money), doubtless, being granted until they joined the rendezvous. The pay of the feudal troops would commence at the same rates on the expiration of their compulsory service.

The pay of a banneret was 3s. a day, with *bouche à court, i.e.*, the King feeding him. Board wages were subsequently given in lieu, according to a statute or ordinance, made at St. Albans, for regu-

(1) Eden's *State of the Poor*, vol. iii., App., p. xi.; and Cullum's *Hawsted*, pp. 180-2.

regulating the household, that a table should not be kept during the absence of the King.([1])

The daily pay of a knight was 2s., and the esquire (*scutifer*) 1s. By the 27th Edward I. they were required to provide barded horses (*chivaux covertz*); those who had them not, or failed to have them appreciated, were mulcted of a portion of their pay. An instance occurs of an esquire, who instead of 12d. received only 8d. per diem, until he had conformed to the requirement. ([2])

Hobilars, or light horsemen, mounted on *hobini* or hobbies, had 6d. per diem.

Constables received 1s. a day. This appellation was given to those officers whether of foot or cavalry, and they were equally expected to be mounted on barded horses; and we find that such as were not, received only 6d. per diem. ([3]) Each constable was allowed 1s. a day, with a horse 6d. extra; each *vintenarius* 4d., and each other foot soldier 2d. while on their march (*veniendo*) to the rendezvous, and the constables had the same allowance for return.

([1]) "Dño Willmo de Cantilupo baneretto, qui solebat coñedere in aula Regis ante statutum factum apud Sanctum Albanum de aula non tenenda, et non coñedenti amplius sed percipienti certa vad', videlt, per diem 6*s.*—pro se et milite suo per statutum predictum, pro hujusmodi vadiis, a 27 die Juuii, quo die venit primo ad curiam post statutum predictum, usque secundum diem Julii, utroque computato, per 6 dies, per quos fuit in cur' et extra rotulum hospicii, per compotum factum cum Domino Rič̃o de Nevill, militi suo, apud Drumbou." (*Lib. Quotid.*, p. 200.)

([2]) "Johanni de Clothale, percipient' per diem, 8d.—quia sine equo appreciato, pro vadiis suis.—Eidem, pro vadiis suis a 24 die Decembr', quo die equus suus fuit appreciat', percipient' per diem 12d." (p. 211.)

([3]) p. 145.

A master-engineer received 9d. per diem. Some of the engineers were monks. [1] A master-carpenter, 6d.

Two hundred ditchers, of whom ten were vintenars, were employed under a master. The master at 6d. per diem, the vintenars at 4d., and the private ditchers at 2d. A number of women were also employed to assist these ditchers, at three halfpence per diem each. A bounty was distributed among the said ditchers by the King, over and above their wages; as also 5s. to the masons. (pp. 268-9.)

The price of wheat varied so greatly in the different counties in this year (1300) that no calculation can be based upon it. [2] Carcases of oxen are

[1] "Fratri Roberti de Ulmo, magr̃o ingeniatori," &c. (p. 257.)

[2] According to Bishop Fleetwood (*Chronicon Preciosum*), wheat varied from £6 8s. in 1270 to 1s. in 1288.—See also Knighton, col. 2,468.—These differences are ascribed to the inclemencies of seasons. It would be interesting to be informed what was considered a fair average crop. Sir John Cullum, who wrote in 1784, supposes it to have been 12 bushels per acre. (*Hist. and Antiq. of Hawsted, Suffolk*, p. 181.) Upon this, Sir F. Eden remarks, "How inferior and contemptible is such a produce in comparison with a modern crop, on drilled land, of 42 bushels an acre!" (i. 18.)—In 1574, 20 bushels of wheat an acre were esteemed a fair average crop. (Harrison, *Descrip. of Britain*, p. 110.)—It would be bad land and bad farming that did not produce the double in this our day.—M'Culloch records "2 quarters 5 bushels as the average produce of grain crops in England; and in Scotland, with a much inferior climate and soil, 3 quarters."—Succeeding generations may probably look upon that as contemptible. The ignorance of agriculture was of course the reason why wheat was always much dearer in proportion to other aliments, according to their present rates. Notwithstanding the occasional high price of wheat, it was so little remunerative to the grower, that agriculture was almost deserted for grazing, although butchers' meat was at a very low price; so that there was constant occasion for statutes to restrain grazing and to promote agriculture, but no effectual remedy was found until a

returned in this "Account" at 5s. to 6s. 8d. Fat hogs (*bacones*) at 2s. 2d. to 4s. 5d. Beasts (*juvenci et boviculi*), 6s. 8d. a head.

The £1, according to Eden's "Conversion Table," was worth £2 17s. 5d. of modern money; and Fleetwood calculates that the shilling, in the year 1300, would buy fifteen times as much of the same article as it would in the year 1700. "The fluctuations of price have been so great of late years," as observes Mr. Hallam, that it is almost as difficult to determine one side of the equation as the other; but taking all things into consideration, he is of opinion that any given sum under Henry III. and Edward I. was equivalent in general command over commodities to about twenty-four or twenty-five times their nominal value at present. (1)

From an entry in the Wardrobe Account of Edward II., it appears that the pay was stopped when the officers or men were absent from their duty. (2)

In the important reign of Edward III., we obtain the items of military pay of all ranks of the army in Normandy and before Calais, from an ancient MS. before quoted:—

bounty was placed on the exportation of wheat, the immediate effect of which was to bring more land into cultivation. The commodities which have risen most in price since then are butchers' and pork meat, poultry, and fish.

(1) *Middle Ages*, ii., chap. ix., pt. ii.

(2) "To Sir Robert de Hastang, banneret, for his wages, and those of his men-at-arms, receiving himself 4s., each knight 2s., each esquire 1s. a day, except when absent within the said time." (*Archæol.*, xxvi. 325.)

	£	s.	d.	
Edward the Black Prince had . . .	1	0	0	per diem.
The Bishop of Durham	0	6	8	„
Earls	0	6	8	„
Barons and bannerets	0	4	0	„
Esquires, constables, centenaries .	0	1	0	„
Vintenars and mounted archers .	0	0	6	„
Foot archers	0	0	3	„
Welsh foot	0	0	2	„
Artificers, some at 12d., 10d., 6d., and 3d.				

Labour, after all, is the real measure of the exchangeable value of commodities. (1) The great wars of Edward III., and especially the pestilence which raged in 1349, had a great effect in raising prices in the labour market. The Parliament attempted the impracticable scheme of reducing the price of labour and poultry ! (2)

Statute of Labourers.

The Statute of Labourers had been enacted in 1349. It recited, "That whereas a great part of the people, and especially of workmen and servants, lately had died of the pestilence, many seeing the necessity of masters and great scarcity of servants, will not serve unless they receive excessive wages." It was therefore ordered that "every able-bodied person, under sixty years of age, not having sufficient to live upon, being required, shall be bound to serve him that doth require him, or else shall be committed to gaol till he finds security to serve. If any artificer take more wages than were wont to be paid, he shall be com-

(1) Smith's *Wealth of Nations*, i. 48.

(2) "Item, from the great dearth that is, in many places of the Realm, of poultry, it is ordered that the price of a young capon shall not pass iij*d.*, and of an old iiij*d.*, of a hen ij*d.*, of a pullet j*d.*, of a goose iiij*d.*" (37 Edw. III., 1363-4.)

mitted to gaol." By the 34th Edward III., it was enacted, "that if any labourer or servant flee to any town, the chief officer shall deliver him up; and if they depart to another county, they shall be burnt in the forehead with the letter F" (probably for *Fugitivus*). Agricultural and other servants were to be content with such wages as they received in the 20th year of the King's reign, and two or three years before; and that in districts where they had severally been paid in wheat, they should receive wheat or money, at the rate of 10d. a bushel, at the option of their employers: they were to be hired for a year, and other accustomed periods, and not by the day. That none pay in the time of sarcling,(1) or hay-making, but a penny a day; and a mower of meadows, for the acre, five pence, or by the day, 5d.; and reapers of corn, during the first week of August, 2d. a day, and from that time, till the end of the month, 3d. a day, without meat or drink. Labourers were to be sworn, twice a year, to observe these regulations; and offenders were punishable with three or more days' imprisonment in the stocks.(2) The wages of artificers were likewise settled in the following proportions:—

A master carpenter by the day . .	3d.	From Easter to Michaelmas without diet.
A master free-mason	4d.	
Other carpenters	2d.	
Other masons	3d.	
Their servants and others . .	1½d.	

The conclusion to be arrived at from this is, that the humblest English soldier was paid as well as a

(1) From the French *sarcler*, to weed.
(2) 25 Edw. III., stat. 2, cc. 1 and 2.

skilled mechanic, and that the wages of the labourer were not so good as those of the present day. Mr. Hallam, however, writes: "There is one very unpleasing remark which every one who attends to the subject of prices will be induced to make, that the labouring classes, especially those engaged in agriculture, were *better* provided with the means of subsistence in the reign of Edward III., or of Henry VI., than they are at present."(1) In the fourteenth century, Sir John Cullum observes, "a harvest man had fourpence a day, which enabled him in a week to buy a coomb of wheat; but to buy a coomb of wheat, a man must now (1784) work ten or twelve days." (2)

But with 2s. a week, and wheat at 10d. a bushel, as regulated in the Statute of Labourers, he could only buy $2\frac{1}{2}$ bushels. The labourer, at 10d. a week, had one bushel, whereas the labourer of the present time, at 1s. 6d. a day, and wheat at 7s. a bushel, would earn more than the cost of a bushel in five days' work. It must, however, be borne in mind that the farm labourer generally lived under the same roof as his employer, and, we have reason to believe, received other advantages in addition to his wages.

The shillings of the reign of Henry III. were three times the weight they are now, and yet a modern shilling would at that time have bought about five times as much as it will at present; consequently a shilling of the coinage of Henry III. would produce fifteen times as much as one of William IV. Silver was then 20d. per oz. Twelve oz., or a pound

(1) *Middle Ages*, ii., ch. ix., pt. ii. (2) *Hist. of Hawsted*, p. 228.

of silver, constituted a pound sterling. A pound of silver in weight now makes three pounds sterling; and consequently, as every shilling of that time was in weight the twentieth part of a pound, it must have been equal in value to three shillings of this.

Edward III. clipped the current coin of the realm, so as to contribute to his expenses. In the 18th of his reign, he deducted 4s. 11¼d., and in the 20th, 9¼d. more. So that there was taken from the standard pound of £2 17s. 5d., as settled in 1300, no less than 5s. 9d.[1]

We learn from these enactments how little liberty was enjoyed by the common people in "the good old times" of "Merrie England." But in the simple mode of life of those days, although the people had less social latitude, it is a great question whether there did not exist a greater amount of public contentment and happiness. Under an administration less vigorous and popular than Edward's, such restrictions would have produced tumults and revolts. Scarcely, indeed, was the great monarch laid in his grave, when the confirmation of the same statutes by his feeble successor gave rise to the memorable rebellion of Wat Tyler. Decidedly the *status* of the private soldier was far preferable to that of the day labourer. No wonder armies were then so easily recruited, and that Edward, despite the depopulation of the pestilence, was enabled in 1360 to carry over to France an army said to amount to 100,000 men.

Knighton states that before the pestilence of 1349,

[1] Harris *On Coins*, pt. ii., ch. i.

a chaplain might have been obtained for three or four marks a year, or for two marks with his board. Now the contemporaneous pay of a foot-archer, at three-pence a day, would amount to nearly seven marks a year. (1)

In 1395 (19 Richard II.), the pound weight of silver of the old sterling was coined into seventy-five real groats, or twenty-five real shillings, or three hundred real pence, so that the penny, half-groat, and groat, were, by that coinage, twice and two-fifths the weight and value of our own modern silver money, and the nominal shilling, in accounting (there being as yet no silver coin higher than a groat or 4d., not till one hundred and ten years after this time), was worth two times and two-fifths of our modern real shilling, or 2s. 4¾d. and one-fifth of a farthing, or nearly 2s. 5d. So that when we read, that at this time a workman had two-pence per day for his wages, he had as much silver in the said two-pence as is contained in 4¾d. and one-fifth of a farthing, or nearly 5d.; and when we know that the necessaries of life, as corn, meat, beer, clothing, &c., were in this year to be had (comparing our shilling or penny with theirs) at near one-fifth part of what we pay in our days, it follows that the said workman's 2d. per diem, could then go as far as 10d. in the present time. (Anderson's *Hist. of Commerce*, i. 391, A.D. 1787.)

It has already been shown that the armies of the kings of England, in the fifteenth century, were made up of contingents, brought into the field by particular

(1) Lib. iv., p. 2,599.

persons, who entered into indenture with the King to serve in person with a certain number of followers, for a fixed period, and on such terms as were agreed upon.

The King being present in his "great council" (probably the Parliament), held in April, 1415, declared in what manner the Lords and others of his retinue were to be retained to serve him for one year in his projected expedition to France, and that they should receive, every Duke, 13s. 4d. a day; every Earl, 6s. 8d.; every Baron, 4s.; every Esquire, Man-at-arms, 12d.; and every archer, 6d. (1) In the indentures which were subsequently framed between the King and the contracting parties, in addition to these rates of pay, there was a further advantage of what was termed "Regardum Consuetum," a bounty of 100 marks per quarter for every thirty men-at-arms. They also contained provision respecting prisoners of war. If the prisoner was a man of eminent distinction, he was to be the property of the King absolutely; but the ransom of prisoners of inferior note was to be divided between the King and the captor. (2) There were also indentures for prest-money, that is, payment for a quarter's wages in

(1) Rymer, ix., p. 223.

(2) An agreement preserved in the Record Office contains a somewhat singular proviso:—"Agreement by William Swynbourne, Esquire, to serve the King in the wars abroad with 10 men-at-arms, and 20 archers, for half a year at certain wages, and to have all prisoners, but kings, princes, and others; and especially excepting Charles, Dauphin of France, and all who consented to the murder of John, Duke of Burgundy." 1st May, 9th Hen. V. (*Army and Navy Accounts, Treasury and Exchequer.*)

advance, on being engaged (from the French *prest*, *paratus*). Moreover, security was given by the King for the payment of the stipulated *vadia* and *regardum* by the placing in the hands of the contractors articles of plate, jewellery, and even crowns and coronets, in pledge. The person receiving them entered into indenture with Richard Courtney, Bishop of Norwich, Treasurer of the King's household, for their safe custody, and the return of them to the royal treasury, when the King had fulfilled his part of the contract.[1] The King covenanted to find transports going and returning for men, horses, and victuals, at the following rate:—

50 Horses for	a Duke.	6 Horses for	a Knight.
24 ,,	an Earl.	4 ,,	an Esquire.
16 ,,	a Banneret.	1 ,,	an Archer.

In an indenture of Edward III., it is specified that in default of payment of wages or other reasonable cause, the parties indenting might disband and go whither they pleased, without any hindrance from the King or his heirs.[2] There are some instances

(1) At the death of the King, many of the jewels were in the hands of those who had indented to serve him, and they applied to Parliament to authorise them to set off the thirds of the "gains of war" due from them to the King, against the arrears of pay due to them; and also for permission to sell the jewels deposited in their hands, paying the balance, if any, into the exchequer. This was granted, to take place within half a year, if such jewels were not the jewels of the Crown. (See *Rot. Parl.*, 1 Hen. VI.)

(2) "Les ditz, Henri et Rauf (Nevil), ne soient servitz ou assignez de leur gages, come desus est dit, ou par autre cause, just et resonable, ils ne porront plus outre demorer por y guerroier, qe bien luer lese d'aler queu part qui leur plerra, sanz empeshement du nostre dit seigneur le Roi, ou de ses heirs." A.D. 1347; 21 Edw. III. (Rymer, *sub an.*)

where Edward III. paid the wages in wool. Sir Michael Poynings (a banneret who fought at Crecy) served the King in Brittany with fifteen men-at-arms, four knights, himself included, and twelve archers, having an allowance of twenty-one sacks of the King's wool for his and their wages.(1)

According to the Conversion Table in Eden's *Hist. of the Poor*, the £1 of Henry V.'s time was worth only £1 18s. 9d. of modern money. Provisions were scarce; wheat, in 1416, according to Fleetwood, was 16s. the quarter. In 1411, a bailiff for the year had 12d. a week, but being fed, only £1 6s. 8d. a year,(2) which shows the high price of commodities. A smaller multiple may therefore be used at this period, in comparing relative value.

An order to the Treasurer to pay the wages of the garrison at Harfleur in 1416, gives the following items:—

		Each per Diem.
4	Barons	4*s.*
2	Knights	— "souldz."
273	Men-at-arms, ovesque regards simple	12*d.*
900	Archers	6*d.*
18	Gunners with	— "soultz."
1	Serjeant	
2	Master Masons	12*d.*
90	Others	6*d.*
	Labourers	6*d.*

(*MS. Donat.*, 4,601, art. 99.)

In an indenture made in 1492 (7th Henry VII.), George, Earl of Kent, engages to serve the King abroad in such places as he shall direct, for one whole

(1) Dugdale's *Baronage*, ii. 134. (2) Eden., iii., xxxi.

year, from the first day of muster, with six men of arms, himself reckoned as one; each man of arms having with him his custrill and page, sixteen demi-launces, sixteen archers on horseback, and sixty archers on foot, all able men fit for service, properly horsed, armed, garnished, and arraied, according to their different kinds and stations, and the customs of war, or as shall be approved of by the King's commissioners deputed for taking the musters; the whole to be mustered at Guildford, on the 4th of June; and on their arrival at Portsmouth, to receive the conduct money, to be calculated at the rate of 6d. for every twenty miles each soldier should march, to be reckoned from his residence to that place, each soldier to swear to the number of miles marched by him. And that from the first day the said Earl shall arrive at Portsmouth, and during the time he shall serve the King in his wars, he shall receive for every man-at-arms, garnished with his custrill and page, 1s. 6d. by the day; for every demi-lance, 9d.; and for every archer, whether horse or foot, 6d. The Earl to receive a month's pay in advance, immediately on his arrival at Portsmouth, reckoning twenty-eight days for a month; this to be paid to him, without any deduction whatsoever, before the transports leave the harbour, and on the last day of the month so paid, he shall receive another month in advance; the money so received he covenants to pay within six days to his soldiers. Respecting the payment of the thirds, and thirds of thirds of all plunder or prisoners of

war,(1) and all other duties according to the statutes and ordinances of war, a copy of which was delivered to him, he covenants that he will obey and submit to them, &c.

In 1482, the keep of a horse was 1d. per diem, and a man's board (a servant) 2d. An ox could be bought for 20s., a quarter of wheat for 6s. 8d., and a load of hay for 5s. 4d.(2) According to the Conversion Table, before quoted, the £1 at this period was worth £1 11s. of modern money.

In 1492, money bore the same relative value, and wheat was 4s. 8d. a quarter.(3) So that 6d. a day marching money for each twenty miles was a fair allowance, as being the cost of three days' board.

From the greater cheapness of cattle, as compared with wheat, it was in the power of the labouring classes to make meat more a considerable portion of their ordinary diet than at present—a fact which is remarked upon by Sir John Fortescue, who states that the English lived far more upon animal food than their rivals the French; to this cause the superior bodily strength of the former may be ascribed. Of the latter he writes, "Thay drynke water, thay eate apples, with bred right brown made of rye, they eate

(1) Every commanding officer was accountable to the King for one-third of his gains of war, whether made by prisoners or plunder; and he was entitled to one-third of the gains of war of every one serving in his corps; for one-third of these thirds he was accountable to the King.—See some curious particulars on this head collected by Grose, vol. ii., p. 110.

(2) Preface to *Household Book of the Duke of Norfolk*, printed by Roxburghe Club.

(3) Eden's *Table of Prices*, iii., xli.

no flesche, but if it be selden, a little larde, or of the entrails, or heds of bests sclayne for the nobles and merchaunts of the lond; . . . but, blessed be God, this lond ys rulid under a better lawe, and therfor the people therof be not in such penurye, nor thereby hurt in their persons, but thay be wealthye, and have al thyngs necessarye to the sustenaunce of nature. Wherfor thay be myghty, and able to resiste the adversaries of the realme, and to bett other realmes, that do or will do them wrong."(1)

By an Act passed in 1532 (24 Henry VIII., c. 4), and in the subsequent year, the price of beef and pork was limited to a halfpenny, and of mutton and veal to three farthings a pound, avoirdupois weight. "These English," says Harrison, "have their houses made of sticks and dirt, but they fare commonly so well as the King."(2)

A list of the army which served at St. Quintin's, in the reign of Mary, A.D. 1557 (quoted before in this work), gives the following daily rate of pay. (Harl. MSS., No. 6,844.—Also in College of Arms, marked W.S.):—

	£	s.	d.
The Captain-general	5	1	2
The Lieutenant-general	3	6	8
The High Marshal	3	6	8
Master of the Camp	1	0	0
General of the horsemen	3	6	8
Captain-general of the footmen	3	6	8
His Lieutenant	1	0	0
The Serjeant-major (our Major)	0	15	0

(1) *On Absolute and Limited Monarchy*, p. 19.
(2) *Description of Britain*, vol. ii., ch. xii.; prin. 1577.

	£	s.	d.
The Master of the Ordnance	1	6	8
His Lieutenant	0	13	4
Master of the Carriages	0	10	0
The Treasurer	1	6	8
The Master of the Musters	0	16	8
The Provost	1	0	0
The Chief Harbinger	0	4	0
Master of the Forage	0	6	0
Master of the Scouts	0	6	0
The Herald	0	5	0
Captain of Armed Horsemen	0	10	0
Lieutenant	0	5	0
Standard Bearer	0	3	4
Surgeon	0	2	0
Trumpeter and Private	0	1	6
Captain of Light Horsemen	0	6	0
Lieutenant	0	3	0
Standard Bearer	0	2	0
Surgeon	0	1	6
Trumpeter	0	1	6
Light Horsemen	0	1	0
Captain of foot	0	4	0
Lieutenant	0	2	0
Ensign	0	1	0
Chaplain	0	1	0
Surgeon	0	1	0
Sergeant	0	1	0
Drummer and Fifer	0	1	0
Private Soldier	0	0	8

In a list of the army raised in the succeeding reign to defend the country against the Spanish Armada, we find that the pay of most of the officers is greatly in reduction of the preceding one :—

The Rates for the Entertainment of the Officers of the Companies appointed for the service in 1588.

	£	s.	d.
The Lieutenant-general of the Army, per day	6	0	0
— Halberdiers,(1) at per day	1	10	0
The Marshal of the Field, per day	2	0	0
— Halberdiers, at per day	0	15	0

(1) Doubtless "the Commander of the Halberdiers."

	£	s.	d.
The Provost Marshal, per day	0	13	4
The Gaoler, per day	0	1	8
Eight Tipstaves, at 8d. each per day	0	5	4
Ten Halberdiers, at ditto	0	6	8
The Captain-general of the Lances, per day	1	0	0
The Lieutenant	0	10	0
The Guidon	0	1	6
The Trumpet	0	1	6
The Clerk	0	1	6
The Surgeon	0	1	6
Ten Halberdiers, at 8d. each	0	6	8
The Captain-general of the Light Horse, per day	1	0	0
The Lieutenant	0	10	0
The Guidon	0	1	6
The Trumpet	0	1	6
The Clerk	0	1	6
The Surgeon	0	1	6
Ten Halberdiers, at 8d. each	0	6	8
The Colonel-general of the Footmen, per day	2	0	0
The Lieutenant	0	10	0
The Sergeant-major	0	10	0
Four Corporals of the Field, at 4s. each	0	16	0
Ten Halberdiers, at 8d. each	0	6	8
The Treasurer at War, per day	0	6	8
Four Clerks, at 2s. each	0	8	0
Ten Halberdiers, at 8d. each	0	6	8
The Lieutenant	0	10	0
Inferior Officers of the Ordnance, per day:			
Ten Halberdiers, at			
The Muster-master, per day	0	6	8
Four Clerks, at 2s. each	0	8	0
The Commissary of the Victuals, per day	0	6	8
One Clerk	0	2	0
The Trench-master, per day	0	6	0
The Master of the Carriages, per day	0	4	0
Master Cart Takers, each per day			
Four Clerks, each at			
The Quartermaster, per day	0	10	0
Six Farriers, each at			
The Scout Master, per day	0	6	8
Two Light Horse, at 16d. each	0	2	8
The Judge-general, per day	0	2	8
The entertainment of the officers of the regiment:			
The Colonel, being a nobleman, per day	1	0	0
He being a knight, or nobleman's son, per day	0	13	4
Lieutenant-colonel, per day	0	6	0

The private soldiers had 8d. a day at this date, as we learn from another source :—

"Whereas the soldiers, at all traynings and musters, have, verie disorderlie, refused to weare and carie their armour, and other warlike furniture from the tounes where they dwell, whereby the constable, and others, the owners therof, have been driven sometymes, to carie the same in carts, and sometymes in sacks, upon horses (a matter bothe unseemely for soldiers, and also verie hurtfull unto the armour, whereby manye tymes it becometh altogether unserviceable). It is therefore ordered, that everie soldier, at all musters and traynyngs, shall have over and besides 8d. a daye for his wages, a penye a mile for the wearing and carriage of his armour and weapons, and other furniture, so that it exceeds not six myles; provided always, that if any of them shall refuse to weare and carie the same, that then the party so offending shall not onlie lose all his wages, but also further, shall suffer four dayes imprisonment without bayle or mainprise."(1)

In a pay list of the army in Ireland, in 1598, ten years later than the preceding one, given by Fynes Morrison, it appears that the rates had been considerably raised :—

Pay of the Army in Ireland under the Earl of Essex, signed by Queen Elizabeth, 24th March, 1598.

	£	*s.*	*d.*
The Lord Lieutenant-general (per diem) . . .	10	0	0
The Lieutenant of the Army	3	0	0

(1) App. lxv., "Report on the Arrangements," *temp.* Armada, &c. (before quoted, i. 360).

	£	s.	d.
General of the Horse	10	0	0
Marshal of the Camp	1	10	0
Sergeant-major	1	0	0
Lieutenant-general of the horse	1	0	0
The Quarter-master	1	0	0
The Judge-marshal-general	1	0	0
The Auditor-general	0	13	4
The Comptroller-general of the Victuals	0	10	0
Lieutenant of the Ordnance	0	10	0
The Surveyor	0	6	8
Two Clerks of Munition, each	0	5	0
Four Corporals of the Field	0	6	8
One Commissary of Victuals	0	8	0
Three others, at each	0	6	0
The Carriage-master	0	6	8
Twenty Colonels, each	0	10	0
Captains of horse, each at	0	4	0
Lieutenants of Horse, each at	0	2	6
Cornets of horse, each at	0	2	0
Horsemen, each	0	1	3
Captain of foot, each	0	4	0
Lieutenants of foot, each	0	2	0
Ensigns of foot, each	0	1	6
Sergeants of foot, each	0	1	0
Drummers, each	0	1	0
Surgeons, each	0	1	0

Each company consisted of a captain, lieutenant, and ensign, 2 sergeants, 1 drummer, 1 surgeon, and 94 effective private men; and 6 dead pays for non-effectives allowed the captain.

Each troop consisted of a captain, lieutenant, cornet (this officer being so styled, instead of guidon as heretofore), and 50 troopers.

Each soldier was allowed a halfpenny a mile from his residence to the rendezvous, and 2s. a head was allowed for transport across the Channel to Ireland. (1)

The pound sterling in the 2nd of Elizabeth was

(1) Harl. MSS., 1,926, art. 10, fol. 29.

worth £1 0s. 8d. of modern money, and in the 43rd of Elizabeth only £1. The decrease in the value of money is a proof of the increasing prosperity of the country. A writer in 1581 remarked that it required £200 a year to keep as good a house as might have been kept sixteen years before for 200 marks (£133 6s. 8d.), and that within thirty years the best pig or goose could be bought for 4d., which then cost 12d.; a good capon for 3d. or 4d.; a chicken for 1d.; a hen for 2d., which then cost double and triple the money.(1)

In 1581 wheat was £1 a quarter; in 1587 it rose to £3 4s.(2) A quarter of veal could be bought for 1s. 2d.; a calf, 7s. 4d.; a leg of mutton, 10d.; a quarter of mutton, 1s. 4d. In 1592 wheat was 18s. a quarter. In a certificate of the rate of wages for the East Riding of the County of York, laid down according to Act of Parliament, in the 35th year of Elizabeth (1592):—

"Every common labourer for ditching, &c., shall not take for wages by the day, with meate and drinke, above 1¼d., and without meate and drinke not above iiii*d.*; and from the first of March untill the feast of All Saints, not above ii*d.* by the day, with meate and drinke; and without meate and drinke, not above v*d.*" (The diet of a labourer, therefore, was estimated at 3d. per diem.)

(1) *A Compendious or Brief Examination of certain ordinary Complaints of divers of our Countrymen.*

(2) Eden says £5 4s., but this appears to be a mistake.—See Fleetwood, *sub an.*

"A mower of grasse or corne shall not take by the day (at Harvest worke), with meate and drinke, above iiii*d.*; without meate and drinke, x*d.*"

"A master mason, having under him one, two, or three men, shall not take for wages for himself by the day, with meate and drinke, above vi*d.*, and without meate and drinke not above x*d.*, and for every one that worketh under him not above iiii*d.*, and without diet not above viii*d.*" (1)

From these rates it would appear that the private soldier could vary his weekly dietary with poultry, pork, beef, and mutton, which certainly could not be done now by his successors in position. Wheat was one-third, and meat fifteen times cheaper at that time. If he could live like the daily labourer, at 3d. per diem, he would have 5d. a day beyond his messing. A private soldier of the present time, when under no extraordinary stoppages, has on an average 4½d. per day for pocket-money. The balance is, therefore, largely in favour of the soldier of the sixteenth century.

What the general diet of the labouring classes was, we perhaps may gather from the Dietary Table of a House of Correction, although possibly the convicted rogue and vagabond may have fared better in prison than the honest labourer in his cottage, as is the case nine times out of ten in this our day:—

(1) Eden, iii., App., No. iii.—Labourers and artificers hired by the day or week were bound to work, in summer, from 5 a.m. till between 7 and 8 p.m.; and in winter, from daylight till dark, by the 5th Elizabeth, c. 4, s. 12.

"Every person, committed to the said house, shall have for theire dietts, at every dynner and supper on the fleshe daies, bread made of rye, viij ounces troye waight, with a pynte of porredge, a quarter of a pounde of fleshe, and a pinte of beare, of the rate of iij*s*. a barrell, every barrell to conteyne xxxvj. gallands; and on every fyshe daie at dinner and supper the like quantitie, made eyther of milk or pease or such lyke, and the thurd part of a pound of chese, or one good heringe, or twoe white or redd, accordinge as the keper of the house shall thinke meete.

"Such persons as will applie theire worke, shall have allowance of beare and a little bread betwen meales, as the keper of the house shall fynd that he doth deserve, and they which will not worke shall have noe allowance but bread and beare onley, untill they will conforme themselves to worke."(1)

Every "stronge or sturdie roag" was to have xij. stripes of the whip on his bare skin, and every young "roag" or loiterer vj. stripes upon first entrance of the said house: the whip was to be made two cords without knots, and "the partie that shall receyve this punishment shall have his clothes turned off his shoulders to the beare skynne downe to the waste." For unruly conduct in the house, the male or female prisoner was to receive on the first occasion four stripes, and on the second six stripes. One is rather surprised to find castigation so mildly administered

(1) Orders, &c., for the House of Correction at Bury, Suffolk, *anno* 1588. (Harl. MSS., No. 364.)

in an age when gentleness towards offenders was certainly not its weak point.

The pay of the army in the succeeding reign of James I., with the prices of all sorts of military stores, will be found minutely recorded in a MS. (Harl. 5,109) quoted in vol. i., p. 388, of this work.

Rushworth has preserved an account of the pay of the army raised by Charles I. to act against the Scots in 1639:—

A List of the several Entertainments of the Officer General of the Field, the Lord General his Train, Officers of four Regiments of Foot-bands, and Companies of Footmen; Officers General of the Horse, and twelve Troops of Horse.

Officers General of the Field.	Per diem. £	s.	d.
The Lord-general	10	0	0
The Lieutenant-general	6	0	0
Serjeant-major-general	2	0	0
Quartermaster-general	1	0	0
Provost-marshal-general	0	6	8
Waggon or Carriage-master	0	6	8
Four corporals of the field, at 6s. 8d. each	1	6	8
The Lord General's Train.			
Treasurer-at-war	2	0	0
Muster-master-general	1	0	0
Commissary-general of the victuals	0	10	0
Judge-marshal	0	10	0
Two Chaplains, at 6s. 8d. each	0	13	4
Two Physicians, at 6s. 8d. each	0	13	4
Two Apothecaries, 3s. 4d. each	0	6	8
Secretary to the Council of War	0	10	0
Two Chirurgeons, at 4s. each	0	8	0
Fifty Halberdiers, at 1s. each	2	10	0
Four Colonels of four regiments of foot, each regiment consisting of 1,500 men, at £1 each Colonel per diem	4	0	0
Four Lieutenant-colonels, at 10s. each	2	0	0
Four Sergeant-majors, at 6s. each	1	4	0
Four Quartermasters, at 5s. each	1	0	0

A List of the Train of Artillery, according to His Majesty's direction, reduced to such a number of Officers and other Ministers as will be merely necessary for a mean Train of 30 or 40 pieces of Ordnance, viz.:—

	£	s.	d.
The General of the Ordnance	4	0	0
Lieutenants	1	0	0

Sundry other Officers, Artificers, and Attendants upon the Ordnance and Train of Artillery, viz.:—

	Per diem. £	s.	d.
A Comptroller	0	10	0
Two Commissaries of the two magazines of munition—viz., one for the train, at	0	6	0
The other for the army, at	0	5	0
Four clerks under them, each	0	2	0
Two Engineers, one at	0	8	0
And the other at	0	6	0
Two Clerks for them, each	0	2	0
Six Conductors of the trenches and fortifications, each at	0	2	0
One Fire-worker	0	3	0
His assistant	0	1	8
One Petardier	0	2	6
Twelve assistants, each	0	1	0
One Master Gunner	0	6	8
Four Gentlemen, each	0	4	0
Gunner's Mates, each	0	2	6
Thirty Gunners, each	0	1	6
A Paymaster	0	5	0
Captain of the Pioneers	0	5	0
Quartermaster	0	4	0
Four conductors of the matrozes	0	2	6
Forty matrozes, each	0	1	0
A Purveyor	0	3	0
One master Smith	0	3	0
Six Servants under him, each	0	1	0
One master Wheelwright, at	0	2	6
Four servants under him, each	0	1	0
One Tent-maker	0	2	8
Two servants, each	0	1	0
A Tent-keeper, at	0	1	6
One assistant to him	0	0	8
A master Carpenter	0	3	0
Six servants under him, each	0	1	0
One Cordage-maker	0	2	0
Two servants under him, each	0	1	0

	£	s.	d.
One Saddle-maker	0	1	6
One servant under him	0	1	0
One Cooper	0	2	0
Two servants under him, each	0	1	0
Four Armourers, each	0	2	6
Four servants under them, each	0	1	0
Two Gunsmiths, each	0	2	6
Four servants, each	0	1	0
One Harness-maker, at	0	1	6
Two servants under him, each	0	1	0
One Farrier, at	0	2	6
Two servants under him, at each . . .	0	1	0
One Bridge-maker	0	2	6
Six servants, each	0	1	0
One Provost-marshal	0	2	0
Two servants under him, each	0	1	0
One Chirurgeon	0	4	0
One servant under him	0	1	0
One Waggoner for the train	0	5	0
One assistant to him	0	2	6
Two principal Conductors—viz., one for the munition of the army, the other for the munition of the artillery, each . . .	0	3	0
Forty Conductors—viz., 20 for the waggons, and 20 for the ordnance, each	0	2	6
One Commissary for the draught-horse, at . .	0	4	0
Two assistants to him, each	0	2	6
In all, per diem	21	7	6
Four Provost-marshals, at 5s. each	1	0	0
Four Carriage-masters, at 3s. each	0	12	0
Four Preachers, at 3s. each	0	12	0
Four Chirurgeons, at 4s. each	0	16	0

CHAPTER X.

THE CLOTHING OF TROOPS.

In the early days of English armies the clothing of troops did not form a branch of military administration. A determinate amount of armour was required, either by tenure or statute, to be provided according to the property of the individual, but beyond that the state offered no interference. The knights and nobles of France and England went into the dust and blood of battle superbly arrayed. They adopted every variety of equipment, so that it was often made a reproach to them that each endeavoured to outvie the other in magnificence of apparel. Habiliments displayed in tournaments were most costly. In 1390 thirty-four knights, who jousted on the King's park in Smithfield, were each of them led from the Tower to the lists by a lady with a golden chain. Their arms and apparel were garnished with white harts, and they wore collars of gold about their necks.(1) There are instances of great men equipping their retinue all alike, with a view of adding dignity to their appearance; but these were special occasions,

(1) Baker's *Chron.*, p. 146.—The value of a collar is estimated, in a proclamation of Henry IV., at £30 money at that day. (Rymer, viii. 167.)

and they are recorded as being remarkable. When Richard, Earl of Gloucester, visited the Pope in 1250, "he travelled through the kingdom of France accompanied by the countess, his wife, and his eldest son, Henry, with a numerous suite, and attended by a large retinue, in great pomp, consisting of forty knights equipped in new accoutrements all alike, and mounted on beautiful horses, bearing new harness, glittering with gold, and with five wagons and fifty sumpter-horses; so that he presented a wonderful and honourable show to the sight of the astonished French beholders."(1)

The disconnected mode of warfare of those iron days did not necessitate that distinctive garb which armies, when more strategetically engaged, were subsequently compelled to adopt. The great man took the field surrounded by his retainers, and in the *mêlée* they clung as closely as possible to his side, to aid in case of need; defence of the lord being the chief feudal obligation. If separated, the waving of his banner or pennon indicated his position. When men offered themselves for hire, the foot troops, who were men of humble means, adopted any kind of defensive material which they could obtain. Their pay was in proportion to their equipment. In the Wardrobe Accounts of Edward II., in 1322, for wages of troops raised for the Scottish expedition, we find: "pro vadiis centum *peditum nudorum*," &c. A pectoral and a helmet of some sort were almost indispensable, as a protection against flights of arrows; but in this

(1) Matthew Paris, p. 669.

there was only that degree of uniformity which was requisite for maintaining their adaptability to a particular service, and their form and material were regulated only by the capacity or opportunity of the wearer. The Welsh appear to have enjoyed a happy immunity from all restraints of decency of costume; those who fought at Bannockburn were known by the poverty of their attire :—

> " Where'er they gied men might them ken,
> For they well near all naked were,
> Or linen cloaths had but mare."—*Barbour*, 276.

The ragged appearance of these sturdy troops was such that we may presume the next king was shamed into the necessity of clothing them, for we find that in the succeeding reign of Edward III. a levy of men was ordered in North Wales, half to be armed with bows and arrows, and half with lances; directions are given to the Chamberlain (*Camerario nostro N. Walliæ*) that all the men should be clothed uniformly—" *de una secta vestiri.*" (Rymer, tom. v., p. 7, A.D. 1338.)

Falstaff's soldiers certainly came under the category of " naked foot."

Cognisances.

Distinctive cognisances or badges were in use at an early period, and were prevalent in the armies of the fourteenth century. In the second crusade the King of France and his people wore red crosses; the King of England and his people white crosses; and the Earl of Flanders and his army white crosses. (Hoveden, p. 641, A.D. 1188.) At the battle of Mons-en-Puelle, in 1304, Philippe le Bel having

commanded that each man of his army should be distinguished by a white scarf, the poor ribauds were obliged to tear up their shirts to comply with the order.

> "Pour estre au ferrir reconnuz
> . . . . .
> Escherpés sur leurs armures,
> Neis li ribaut les ont mises
> Faites de leurs propres chemises."(1)
>
> G. Guiart, l. 11,059.

The English adventurers who fought in Spain in the cause of Peter the Cruel were distinguished by a red cross upon their white vests, and the Castilians by a scarf.(2)

By an Ordinance of war of Richard II., every man of the army "shall bear a large sign of the arms of St. George before, and another behind, upon peril that if he be hurt or slain in default thereof, he who shall hurt or slay him shall suffer no penalty for it."

The Scots and their French auxiliaries, in 1385, were ordered to wear a white cross of St. Andrew before and behind.(3) Mention is made in Froissart of "white hoods," or "white hats," the distinguishing marks of a party in Ghent; and of the communal

(1) To this fact the illustrious author of *Études de l'Artillerie* (i., p. 9) appends the following amusing note:—"Cependant ce fait prouve qu'ils avaient des chemises, luxe assez remarquable, pour cette époque, car environ deux siècles plus tard, le Marquis de Pescaire, à la bataille de Pavie, 1525, ayant ordonné que dans une attaque de nuit, chaque soldat, pour se reconnaître, mit sa chemise par dessus ses armes, les lansquenets, n'ayant pas de chemises, s'en firent en papier blanc. (Paul Jove, *Istorie del suo tempo*, tom. iii., liv. xxii., p. 82.)"

(2) Ayala, p. 454.

(3) Pinkerton, i. 163.

muster which assembled in arms under Philip von Arteveld, each company adopted a distinguishing dress. One body had coats fessy of yellow and blue, another wore a black bend on a red coat; some had a white chevron on blue,(1) and so forth.

At the battle of Barnet, in 1471, the accidental mistake of the cognisances of the contending parties, which were very similar, "led to a strange misfortune." The cognisance of King Edward was a sun, that of the Earl of Oxford was a star, with rays diverging from it. In the dense mist that prevailed during the engagement, the Earl of Oxford was mistaken for a Yorkist leader, and he and his troops were beaten from the field with very great slaughter by their own friends.(2)

In night attacks, the Spaniards appear to have originated a practice of putting their shirts over their armour, (3) an example which was subsequently copied by others. "The attack of a town being done in a dark night, the assaulters must have some token or cognisance amongst them, or some word or garments of like colour. We do, at the present, use shirts drawn over our garments."(4)

When it became the practice to furnish soldiers by agreement or contract, it seems that the captains used to stop part of their men's pay, to purchase necessaries for them, and also for other purposes.

(1) *Chron.*, vol. ii., p. 247.
(2) Baker's *Chron.*, p. 211.—Leland, *Collec.*, ii. 504.
(3) Guicciardini, x. 193.
(4) Paul Ive's *Instructions for the Warres*, from the French of William de Bellay, 1589.

This being complained of, an Act of Parliament was passed in the 18th of Henry VI. (c. 18), wherein captains were forbidden to stop any part of a soldier's pay, except for his clothing; "that is to say, if he was waged for half a year, 10s. a gown for a gentleman, and 6s. 8d. for a yeoman, upon pain of £20 for every spear, and £10 for a bow, to the King." By the 2nd and 3rd of Edward VI., this stoppage was altered to 6s. 8d. per annum for the livery coat of a yeoman, and 13s. 4d. for that of a gentleman; and that act being repealed in the 1st of Philip and Mary, was, in the 4th and 5th of the same reign, revived and made effectual.

In 1513, Henry VIII. was escorted to the siege of Terouenne by "six hundred archers of his Garde, al in white gaberdines and cappes."(1) The gaberdine was such as is still worn by the Yeomen of the Guard, and was in shape the ordinary surtout of the day. In 1526, the coats of all the yeomen of the household were to be made of red cloth.(2) This is the first time we hear of red as a military colour in England.(3)

In 1532, the able men of the City of London were dressed in "white coats and breeches, and white hats and feathers." (Stowe, *Chron.*, ii. 566.)

(1) Hall's *Chron.*, *sub an.*

(2) Cottonian Library, *Vespasian*, c. xvi.

(3) In a MS. Catalogue of the events of the reign of Henry V., entitled *Acta Regis Hen. V.*, preserved in the Bodleian Library (MS. 2,159), it is written: "A.D. 1417. Rex vestit suos *rubro*, et paret transire Normaniam." But this clothing of red had, doubtless, reference only to the number of his immediate retinue or household.

A MS. in the College of Arms[1] contains the orders of the Duke of Norfolk to the conductor of the "waward" of an army raised in the 36th of Henry VIII., respecting the clothing of the soldiers. The contents are curious, and so is the spelling:—

"Furst, every man sowdyer to have a cote of blew clothe, after suche fashion as all fotemen's cotes be made here at London, to serve His Majestie in this jorney, and that the same be garded[2] with redde clothe, after such sorte as others be made here. And the best sene[3] to be trimmed after such sort as shall please the captayne to devise.

"Provided alwayes, that noe gentleman nor other were any manner of silk uppon the garde of his coate, save oonely uppon his lefte sleeve, and that noe yeoman were any manner of silke upon his saide cote; nor noe gentleman nor yeoman to were any manner of badge.

"Item, every man to provide a payer of hose for every of his men, the right hose to be all red, and the left to be blew, with oone stripe of three fingers brode of red upon the outside of his legg from the stocke downward.

(1) Marked W.S. *Instructions for the setting out of the Men, &c.* (fol. 240).

(2) *i.e.*, ornamented, laced or fringed—

> "Give him a livery more *guarded* than his fellows."
> *Merchant of Venice*, ii. 2.

And in the Prologue to *Henry VIII.*—

> "A fellow
> In a long motley coat, *guarded* with yellow."

> "Rhymes are *guards* on wanton Cupid's hose."
> *Love's Labour's Lost*, iv. 3.

(3) *i.e.*, the best looking men.

"Item, that every man have an arming doublette of ffustian or chanvas.

"Item, every man to have a cap to be made to put his sculle or sallete in, after such fashion as I have devised, wh. William Taylor, capper, within Ludgate, doth make for me, where you may have as many of them as ye list for eightpence the pece."

Badges are here ordered to be discontinued. They may have been worn on the arm, like those on watermen's coats. A proclamation, signed "J. Hertford," in the same book, makes known that "My lord lieutenant doth farther straytley charge and command, that no man of this armye, nor any other resortinge to the same, be he soldier, victualler, or other, do presum, after this proclamation, to come within the circuit or presynckt of this campe, oneless he have a red crosse sew'd upon his uppermost garment, upon payne of 15 dayes' imprisonment, and to be farther ordered at my lorde lieutenante's pleasure."

This regulation was strictly enforced by the 48th article of the "Statutes and Ordinances of War,"(1) 35th Henry VIII., which declares that the killing of soldiers out of uniform is not punishable:—

"Also, that every man going in hostynge or battayle, of what estate, condition, or nation he be, of the King's partie and hoste, except he be a bishop or officer of armes, bear a cross of Saynt George, sufficient and large, upon the payne that if he be wounded or slayne in the defalt thereof, he that so woundeth or slayeth him shall bear no pane therefore; and if he

(1) In the same volume. W.S.

for anie cause pass the bondes of the fields, that then he bare openly a crosse of Saynt George, upon pain to be imprisoned and punished at the King's pleasure. And that noe soldier beare no cognessance but the Kinge's and his captaine's, upon payne of death; and that none enemise bear the sayde signe of Saynt George, but if hee bee a prisoner and in warde of his master, upon payne of death."

From the curious journal of William Patten we obtain a description of the habiliments of the Scots in 1548. Their personal equipment does not seem to have added dignity to their presence. He assigns as the reason of the great slaughter of the Scots at the battle of Musselborough, that their mean appearance gave little hopes of their ability to pay ransom.

"Not the meanest matter," says he, "was their armour among theim so little differing, and their apparail so base and beggerly, whearin the Lurdein was in a maner all one wyth the Lorde, and the Lounde wyth the Larde: all clad lyke in iackes coouerd wyth whyte leather, doublettes of the same, or of fustian, and most commonly al whyte hosen. Not one with either cheine, brooch, ryng, or garment of silke, that I could see, onles cheynes of latten drawen four or fyue tymes along the thighs of their hosen, and dooblet sleeues for cuttyng: and of yt sort I sawe many. This vilenes of port was the caus that so many of their great men and gentlemen wear kyld and so few saved. The outwarde sheaw, the semblaunce and signe, whearby a stranger might discern

a villain from a gentleman, was not amoong them to be seen."

In Mary's time, the English army was again clothed in white coats, with red crosses on them, as appears by a letter from Thomas Lord Wharton to the Earl of Shrewsbury, in 1557,(1) and also in a copy of one from the Queen, preserved in the State Paper Office, dated 7th of January, 1558 (vol. xii., Domestic), addressed to special gentlemen in every county, urging them to raise men for the succour of Calais, "the Chief Jewell of the Realm."

In the reign of Elizabeth, the colour of the uniform was changed again. In a levy of archers for service in Ireland, in 1566, they were to be furnished with a cassock of blue cloth, garded with two small gardes of white cloth.(2)

In 1574, the coats of the infantry were to be of "color bleu, Gasconie fashion," and to cost 12s. 4d.; the hose, 8s.; shoes, 2s.; shirts, each 4s.; and a doublet, each 4s.(3) The artificers of the army were to be clothed in red: "The coates to be reede (red), of vj$^{s.}$ viij$^{d.}$ the yard, Gasconie fashione, tyed under the arme wth white inckle (tape)."(4) Archers wore as head-pieces, skulls of steel or iron, with an under cap or lining of red cloth; the caliver men, morions or burgonets; and the billmen, or halberdiers, or pikemen, had salades. As this latter class were intended

(1) Talbot Letters, p. 109. In College of Arms. Vol. marked D.
(2) Harl. MS. 1,926, art. ix., fol. 28 *b*.
(3) *Ibid.*, art. 10, fol. 29.
(4) *Lancashire Lieutenancy*, i. 67.

for close fighting, they were further protected by a corselet, as were sometimes the archers by a stout leathern jack, "a jerkine of a stagg or bull-skynne."

In 1576, a body of artificers (masons, carpenters, and labourers) were ordered to be dispatched to Ireland from Lancashire, and they were to be clothed in coats of "whyte cloath, made of the fashion of a cassocke, garded with two laces of crulles (crewel or worsted lace), the one of the color read (red), and the other greene."(1)

A pressing levy of 300 men in the county of Lancaster, in 1577, to be ready "within one hower's warninge," presents us with a complete picture of the regulated uniform of a bill or pikeman of that day. Converting the order into modern terms, it may be described as a coat of pale blue Yorkshire broad-cloth, with two stripes of yellow or red cloth by way of border; vest of white Holmes fustian; pale-blue kersey shirts, with two stripes of red or yellow cloth down the seams two fingers broad, with garter and points or ties at the knees; stockings of white kersey; shoes with large ties. The coat was cut Gascony fashion, and cost 11s. 8d.; and the breeches Venetian. Over this dress was worn the light breast-plate, gorget, and head-piece—the suit being termed a corselet; round the waist a girdle carrying a sword and dagger.

(1) Harl. MS. 1,926, art. ii., fol. 296.—The Tudor liveries were white and green.—Most of the information of this reign is derived from the MSS. published by the Chetham Society, under the title of *Lancashire Lieutenancy*, compiled with so much industry and research by Mr. Harland, F.S.A.

The clothing of the archer was the same as the pikeman. His protective armour varied: he had an inexpensive coat of plate instead of the corselet; and a skull, with a Scottish cap to cover it.

The pioneer wore a cassock or coat of the same colour, but not of broad-cloth. His vest and breeches were white. He wore a skull and cap, but no other armour; and his only arms were a sword and dagger.(1)

In 1584, the men ordered to be raised for service in Ireland were to be furnished with "convenient dubletts and hose, and also a cassocke of the same motley, or other *sadd greene* color or russet,"(2) (appropriate for the hard service in the Emerald Isle); and, in addition, with a short cloak or mantle to protect them from the weather when they arrived there, and for this an allowance of 5s. was to be made, at the cost of the division or parish.(3) No national colour was as yet acknowledged, the colour of the clothes depending on fancy, or the circumstances of the moment. A body of troops levied at the expense of the City of London, in 1585, were to be supplied with red coats, as these men were to be sent into the Low Countries, and would have, in all probability, to face the gallant veterans of Spain. For that reason probably they were more lavishly equipped in showy red. Sad green or russet was considered good enough for rebel-hunting in Ireland.(4)

(1) Harl., MS., *ut supra.*—*Lancashire Lieutenancy*, p. 89.
(2) Russet is a dingy brown.
(3) Harl. MS., *ut supra.*
(4) Stowe's *Chron.*, p. 709.

The uniform cloaks worn by the cavalry were red. Their fashion is described in a detail of the appointments of the lancers or light horsemen, directed to be provided by the Bishop of Chester, the Dean and Chapter, for service in Ireland, in 1580. "For their apparell" (says the order) "yt shal be convenient that you see them furnished of redd clokes, lined, without sleeves, and of length to the knee; dubletts, hose, hatts, boots, and all other necessarie apparell for their bodies."(1)

In the Norwich accounts for 1587-8, we read the following item: "For ccl. souldiers' coats, at v*s*. viii*d*. a-pece, lxx£. xvi*s*. viii*d*." "For the chargys of xxv. souldiers appoynted for her Ma^{ts} servyce, viz., for ev^{r}y one a coat, x*s*.," &c. The drummer's coat was made of "grene carsey" (kersey), embellished with eleven yards of lace and "vi. yards of poynting." Other coats of the Norwich contingent were of "bayes and carseys," the bill including a charge "for whight yncle to laye upon the same coats."(2)

Sir John Harington supplies us with a very detailed account of the clothing of the army employed in Ireland in 1599. "I must not forget," says he, "nor cease to tell her Majestie's good, wise, and gracious providings for us, her captains, and our soldiers, in summer heats and winter colds, in hunger and thirst, for our backs and our bellies; that is to say, every captain of an hundred footmen doth receive weekly, upon every Saturday, his full entertainment

(1) A.D. 1580. Printed in *Desid. Curiosa*, l. iii. 22.
(2) *Norfolk Archæology*, i., pp. 6, 13, 15, and 27.

of twenty-eight shillings. In like case, every lieutenant, fourteen shillings; an ensign, seven shillings; our sirgeant, surgeon, drum and fife, five shillings pay, by way of impost; and every common soldier, three shillings: to all by the pole weekly. To the four last lower officers, two shillings weekly, and for every common soldier twenty pence weekly, is to be answered to the full value thereof, in good apparel of different kinds for summer and for winter, which is ordered of good quality and stuff for the prices; patterns whereof must be sent to the Lord Deputy to be compared and prepared as followeth:—

Apparel for an Officer in Winter.

A cassock, or coseque, of broadcloth, with bays, and trimmed with silk lace, 27s. 7d.

A doublet of canvas, with silk buttons, and lined with white linen, 14s. 5d.

Two shirts and two bands, 9s. 6d.

Three pair of Kersey stockings, at 2s. 4d., 7s.

Three pair of shoes of neat's leather, at 2s. 4d. per pair, 7s.

One pair of venetians,[1] of broad Kentish cloth, with silver lace, 15s. 4d.

In Summer.

Two shirts and bands, 9s. 6d.

Two pair of shoes, 4s. 8d.

One pair of stockings, 2s. 8d.

A felt hat and band, 5s. 5d.

Apparel for a Common Soldier in Winter.

A cassock of Kentish broadcloth, lined with cotton, and trimmed with buttons and loops, 17s. 6d.

A doublet of canvas, with white linen lining, 12s. 6d.

A hat-cap, coloured, 7s. 6d.

Two shirts of Osnabridge Holland, and bands, 8s.

[1] The French gave this name, as Mr. Douce informs us, to a cloth originally manufactured at Venice, and probably imitated in Kent. The cloth would give name to the habit made of it, which appears to have been trousers.

Three pair of neat's leather shoes, 2s. 4d. each, 7s.
Three pair of Kersey stockings, 8s.
One pair of venetians, of Kentish broadcloth, with buttons, loops, and lining of linen, 13s. 4d.

In Summer.

Two shirts of Osnabridge, and two falling Holland bands, 7s.
Two pair of neat's leather shoes, 4s. 8d.
One pair of stockings, 2s. 8d.
A hat-cap, coloured, 3s."

The sturdy buff-coat, a loyal defence against a sword-cut, was much used in this century, worn either as an outer coat or else under the cuirass. Its qualities are alluded to in Hudibras's epitaph:—

"And for the good old cause stood buff,
'Gainst many a bitter kick and cuff."

The tough leather of which it was made was prepared from the skin of the buffalo, and as it was of a tawny hue, the word *buff* came to denote a colour; hence it acquired as an adjective the sense which it now commonly bears in English.(1) "Captaine Harvy received a shoot in his murrian, a blow with a pike upon his back, but escaped danger by the goodnesse of his Buffe Coat."(2)

Grose gives a description and engraving of a buff-coat worn by Sir Francis Rhodes, Bart., of Balborough Hall, Derbyshire, a cavalier in the Civil Wars. (*Mil. Antiq.*, ii. 357, Plate 39.) The

(1) This acceptation of the word is of no great antiquity; the earliest writer from whom it is cited is Goldsmith. The phrase "blue and buff," therefore, denoting the colours of the Whig party, does not ascend beyond the middle of the last century. See some remarks on the buffalo, contributed by Sir G. C. Lewis, Bart., in *Notes and Queries*, 2nd S., ix. 1.

(2) *Pacata Hibernia*, i. 134.

coat had been decorated with gold lace, and it was fastened up the breast by a lacing string of strong white tape. The ends of the sleeves were looped back. There are other specimens of these coats, which have obstinately withstood the attacks of time, and remain visible memorials of the great internecine conflict. The short buff-coat worn by Lord Brook at the siege of Lichfield is preserved in Warwick Castle in perfect condition; it is sketched on our Plate LIII. There is also a long buff-coat, worn by Colonel Fairfax at the battle of Naseby, handed down in the Isham family, now represented by Sir Charles Isham, Bart., of Lamport Hall, Northamptonshire. (See Plate LIV.) The silver wired buttons are drawn full size, and the blood stain in front is the only damaged part. The back of the same coat is represented on Plate LV.

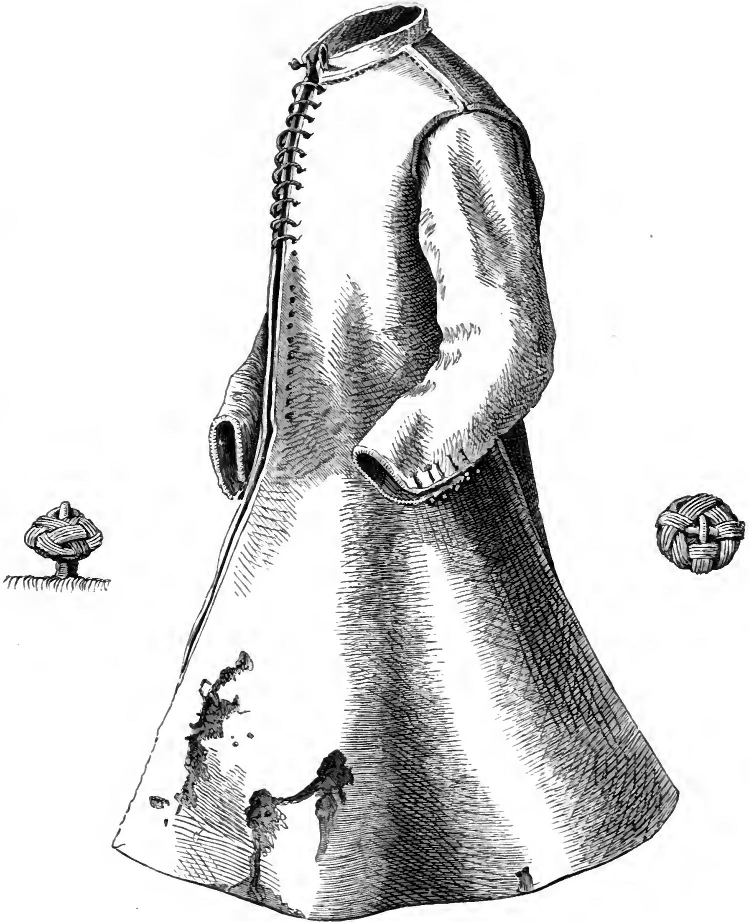
Chain coverings or doubled buff defences were often worn on the fore-arm. In Cruso's *Militarie Instructions for the Cavallrie*, 1632, "the Cuirassier is to be accoated with a buffe coat under his arms, and he is to weare a skarf of the Princes colour whom he serveth." (Ch. xx.)

In Charles I.'s reign we read of some brilliant uniforms, such as that of Sir John Suckling's troop, which consisted of "a white doublet, a scarlet coat, and a hat with a scarlet feather." This, however, was but the fanciful dress selected by a man who voluntarily raised a troop of horse at great expense, and whose vanity far exceeded his military prowess. During the continuance of the terrible Civil War, no

No. 53.

Short buff Coat, worn by Lord Brook at the Siege of Lichfield. (Preserved at Warwick Castle, in perfect condition.)

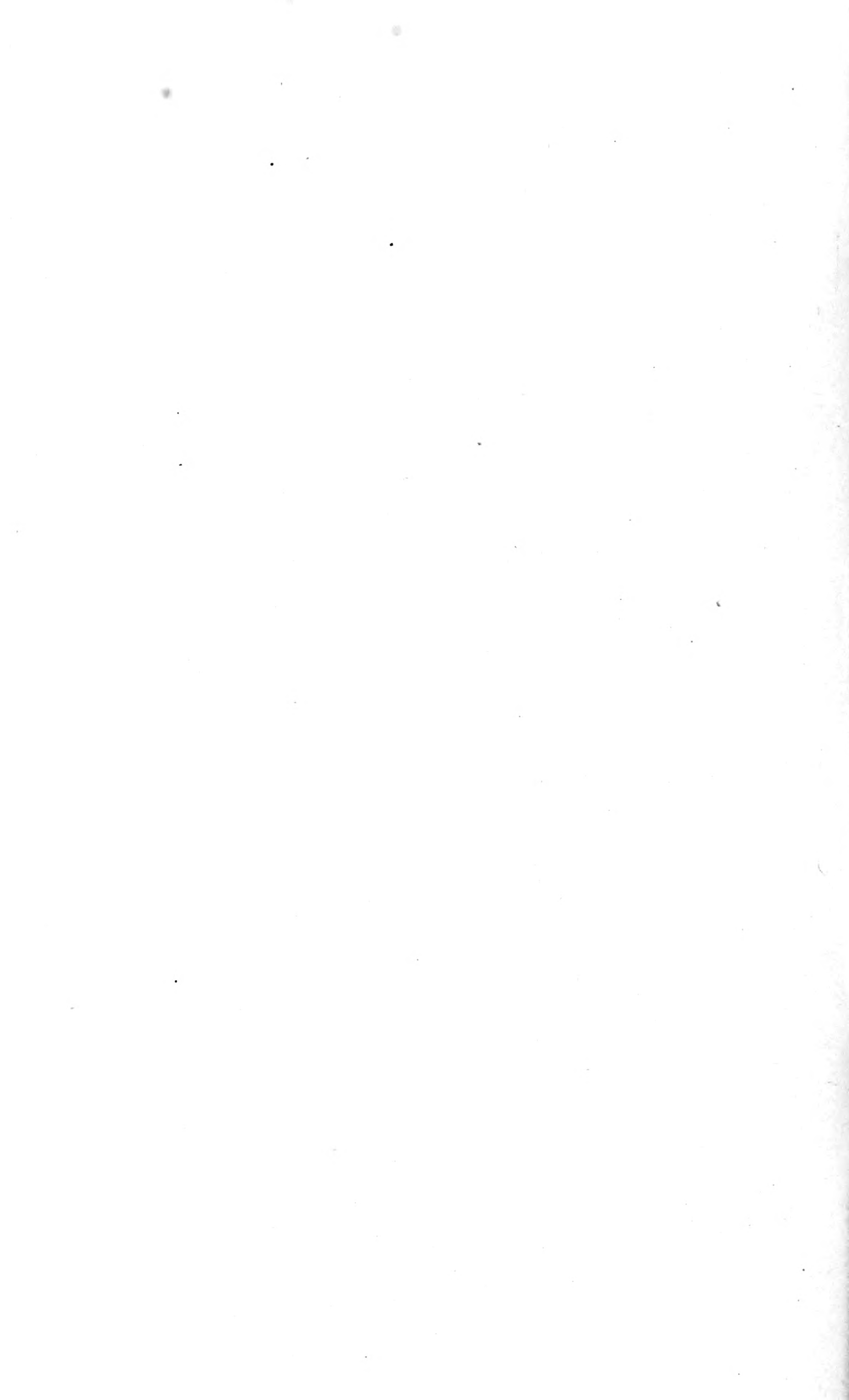
No. 54.



Long buff Coat, worn by Colonel Fairfax at the Battle of Naseby, A.D. 1645. (Preserved in the family of Sir Charles Isham, Bart., Lamport, Northampton.) The silver-wired buttons are drawn full size, and the blood-stain in front is the only damaged part.

No. 55.

Back of the same Coat.



No. 56.

Pikeman of the Commonwealth, drawn from a figure in the Tower.

particular colour of soldiers' coats distinguished the antagonistic parties. Red and blue, grey and green, and black, were worn indiscriminately by both sides. Colonel Legge was taken prisoner by mistaking Hampden's "green coats" for those of Lord Northampton.(1) The regiments were clothed in the colours of the livery of the colonels, but generally they were assumed to distinguish one corps from another, and were designated accordingly, as Sir William Constable's blue coats, Lord Robart's red coats, Colonel Meyrick's grey coats, Lord Saye's blue coats. The red regiment of the Parliament had been surprised by the King at Brentford, and the "grey coats" shortly acquired the character of "most exquisite plunderers."(2)

Plate LVI.—Pikeman of the Commonwealth, drawn from a figure in the Tower.

The King's Life Guard of foot was a *crack* regiment, and clothed in red. "The red regiment of the enemy came on resolutely (at Tadcastle, in 1642), and this became them who were the life-guard and choicest men. Their *Black*, which should have seconded them, were so galled by our drakes, as they durst not approach fairly."(3) Prince Rupert had also a Life-Guard of foot all in red coats.

Scarves were worn across the shoulders as a distinguishing emblem; those of the King's side

(1) Lord Nugent, p. 268.—The "green coats" were all Buckinghamshire men. (*Ibid.*, ii. 200.)

(2) *Fairfax Cor.*, ii. 415.

(3) *Ibid.*, p. 421.

were white, Essex's were orange; but the most distinguishing feature would have been the effectual simplicity which characterised the Puritans in contradistinction to the equally unnatural gaiety of manner and garb of the Royalists.

At Edgehill, the King was dressed in a black velvet coat lined with ermine, and a steel cap covered with velvet.(1) Prince Rupert was clad in scarlet, very richly laid in silver lace.(2) The royal standard which had been taken that day by the Parliamentary troops, was rescued by the gallantry and promptitude of a Captain John Smith, who with two more, disguising themselves by placing orange scarfs across their shoulders, rode into the enemy's ranks, and carried it back in triumph to the King, who immediately knighted him. (Ludlow, i. 49.)

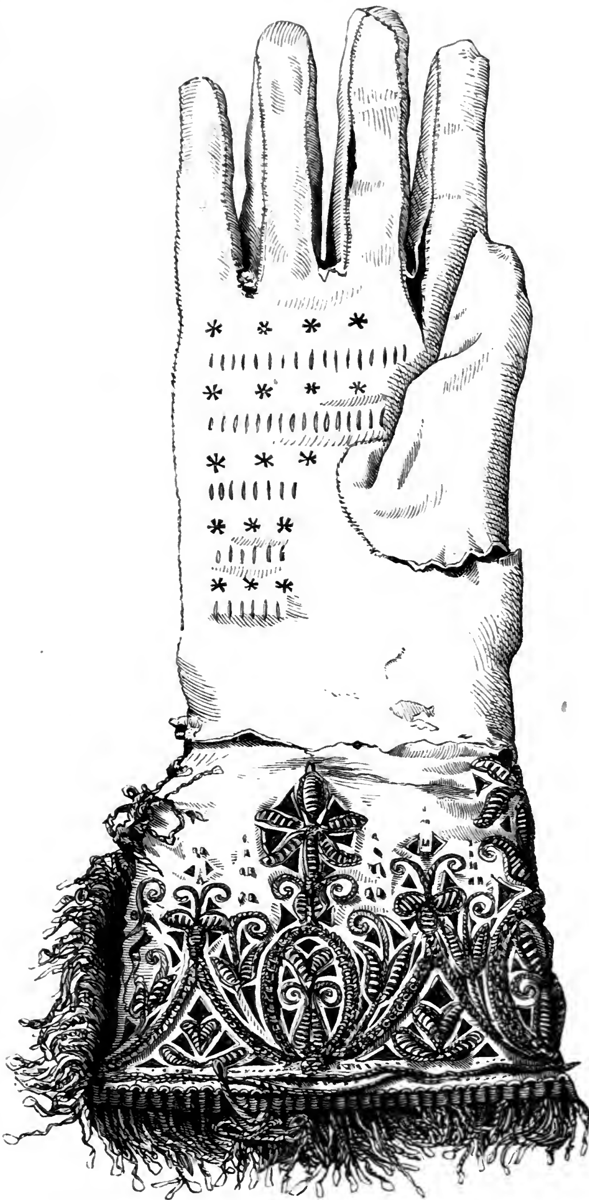
This was certainly a very picturesque period so far as clothing was concerned. Two more articles of dress may not be inappropriate here. *A Cavalier Glove*, made of white doe skin, worn by a Captain Lench, at the battle of Worcester. (See Plate LVII.) The gauntlet is silver embroidery, and the ventilating perforations in the palm are curious. This relic remains in possession of Mrs. Talfourd Field, Blackdown, Leamington. The boot worn by the same officer at the same great fight has descended to posterity, and is now the property of Studleigh Martin, Esq., Liverpool. (Plate LVIII.)

Early use of Scarlet.

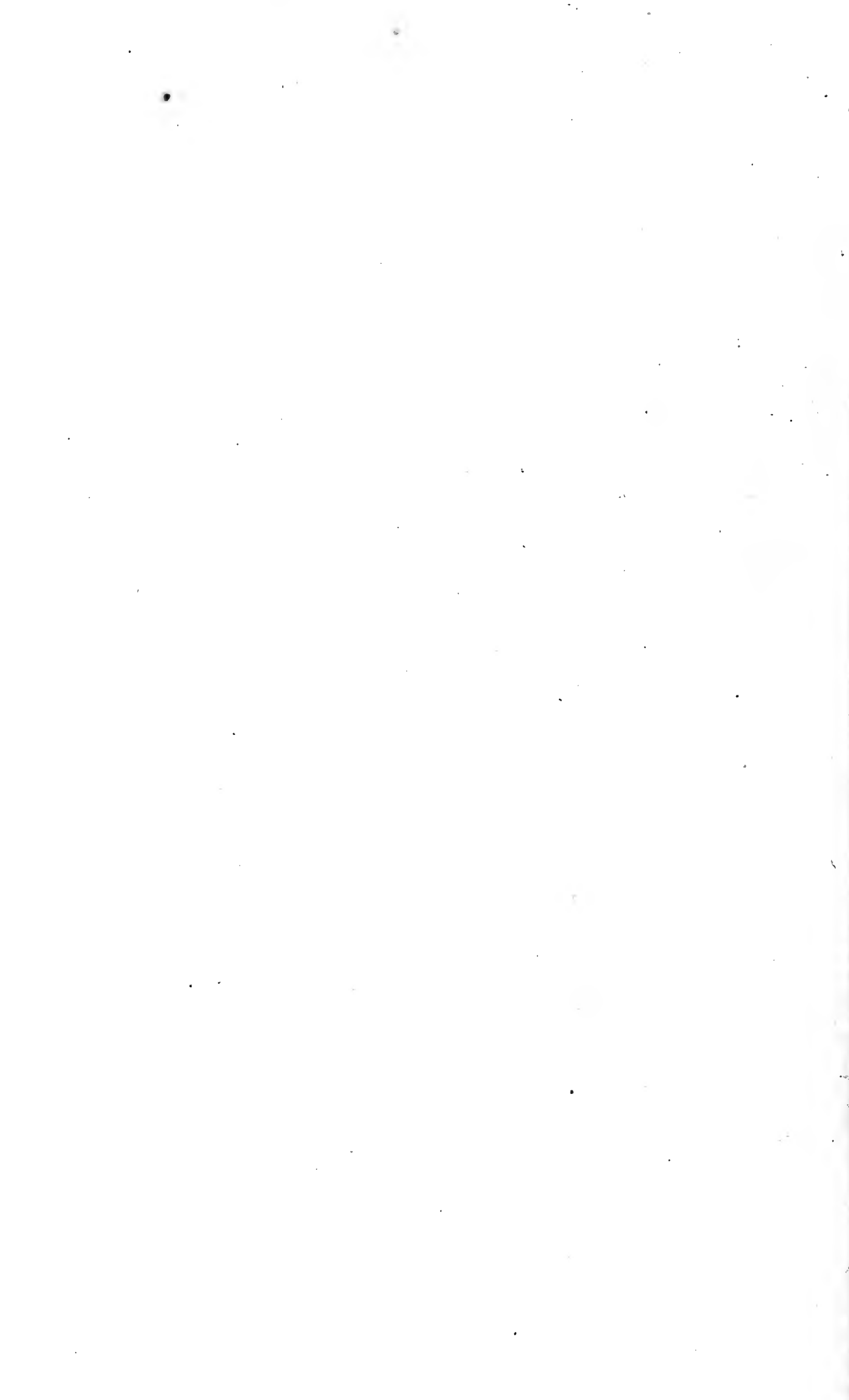
The use of scarlet clothing for troops dates from

(1) Bulstrode, p. 78.
(2) Warburton, *Prince Rupert*, iii. 181.

No. 57.

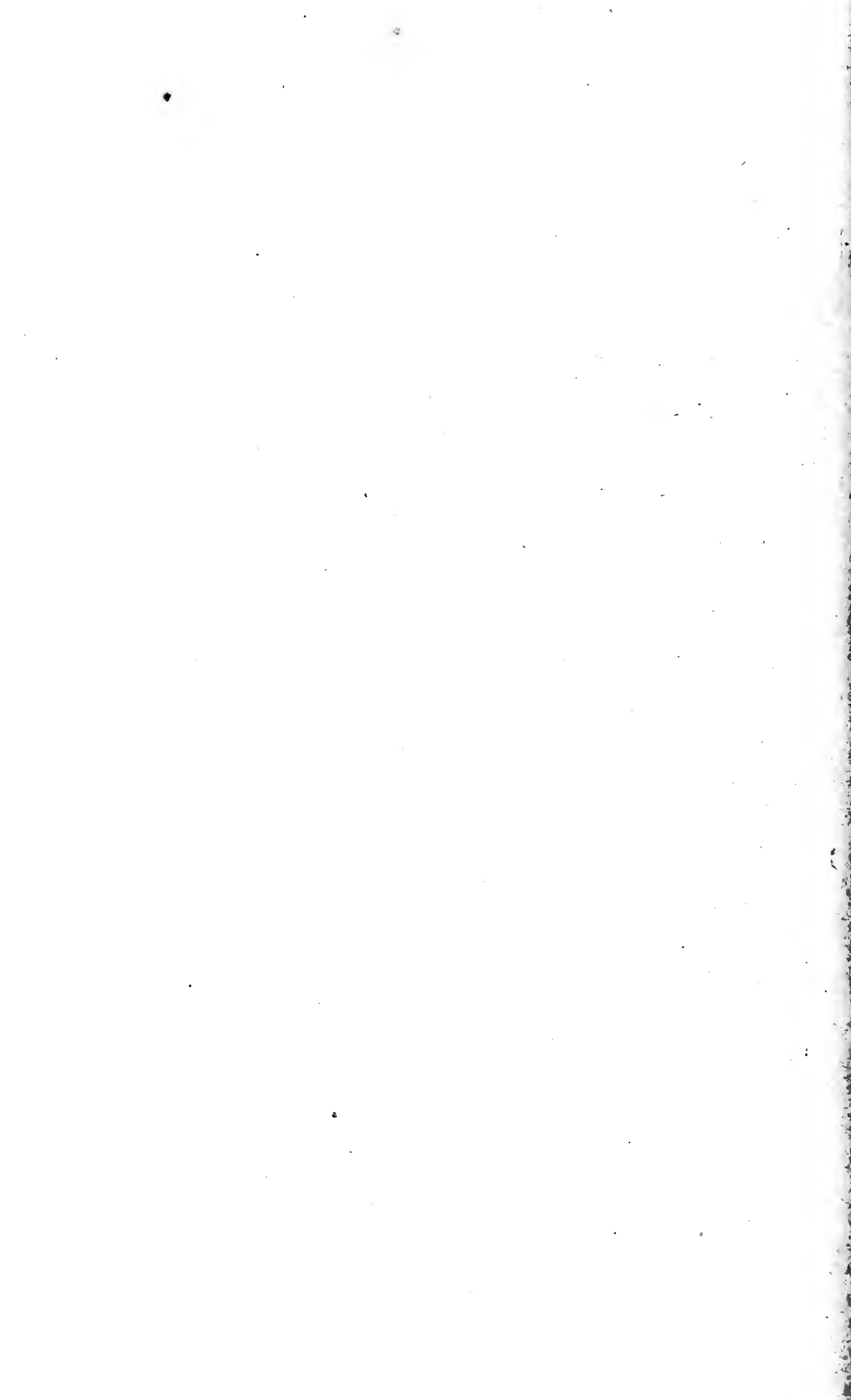


Cavalier's Glove of white doeskin, worn by Captain Lench at the Battle of Worcester. The embroidery is silver, and the ventilating perforations in the palm are curious. (This relic remains in possession of Mrs. Talfourd Field, Blackdown, Leamington.)



No. 58.

Boot worn by Captain Lench at the Battle of Worcester, A.D. 1651.
(In possession of Studleigh Martin, Esq., Liverpool.)



a very early period. Lycurgus ordered the Lacedæmonians to clothe their soldiers with it. The probable reasons for which selection are stated to have been, either because that colour is both soonest imbibed by cloth, and most lasting and durable, or on account of its brightness and splendour, which was thought conducive to raise men's spirits, and therefore most suitable to martial conflicts; or lastly, because it was supposed to conceal the stains of blood, a sight of which might either dispirit the raw and inexperienced soldiers of their own party, or inspire their enemies with fresh life and vigour.(1) This last view is taken up by Julius Ferrettus, a Venetian author on military subjects in the sixteenth century.(2) The second was, doubtless, the reason of its adoption in armies, namely, its brilliant appearance.

Earl Stanhope in his *Miscellanies,* publishes a question he submitted to Lord Macaulay, then Secretary at War, as to "when the British army was for the first time clothed in red"—an inquiry which the noble lord states had been addressed to him by no less a person than the Duke of Wellington. Lord Stanhope imagined it to be in the reign of Charles II. The Duke seemed to think that it was earlier, and that Monk's troops, for example, were *Redcoats.* The following reply was returned:—

(1) See Potter's *Antiquities*, p. 48.

(2) "Adsint et in exercitu militaria indumenta, et vestes pro usu militum, et pro bello, quæ parva, et brevia sunt sagula, sive fagia dicta rubri colores, *ne ità videatur sanguis vulneratorum in prœlio* ut nec sibi et aliis pugnantibus, pavore incruciat." (*De Re et Disc. Mil.*, 1575, p. 75.)

"*Right Hon. T. B. Macaulay to Lord Mahon.*

"Albany, May 19, 1851.

"Dear Mahon,—The Duke is certainly right. The army of the Commonwealth was clothed in red." (p. 99.)

It will be perceived, however, from what has been previously shown here, that red was not considered either a national or a royal colour. There were red regiments on both sides in the Civil War. A portion of the French army wore red cassocks towards the close of the sixteenth century.(1) In an original contract for clothing an infantry regiment in 1693, preserved in the Harleian Collection, No. 6,844, the colour of the uniform is given as well as the contract prices, by which we learn that the men were clothed in grey, and the drummers in purple coats:—

Private Sentinel.

	Prices charged in contract.		
	£	*s.*	*d.*
Grey Coat and breeches	1	12	0
Hat	0	6	6
Shoes	0	4	0
Shirt	0	3	6
Neckcloth	0	1	0
Stockings	0	2	0
	2	9	0

Serjeant.

	£	*s.*	*d.*
Grey coat and breeches	4	12	0

Drummer.

	£	*s.*	*d.*
Purple coat and grey breeches	3	10	0

(1) "Ces vieilles casaques rouges que La Noue avoit toujours conduites sous le roy de Navarre." (*Décade de Henry le Grand*, par Le Grain, liv. iv., quoted in *Études de l'Artillerie*, i. 259.)

CHAPTER XI.

QUARTERS—THE HIGH HARBINGER—COAT AND CONDUCT MONEY—MARCHING — WAGONS — ENCAMPMENTS — REWARDS — ADMINISTRATION OF JUSTICE—PUNISHMENTS—PRISONERS OF WAR.

In mediæval times, when an army was to be set in motion, the King, or some officer authorised by him, issued his mandate to the chief civil magistrate of the district, requiring him to provide quarters and provision for the occasion.(1) In order to ensure a sufficient supply of victuals, instructions were sometimes issued to stop the markets which were customarily held in the adjacent counties. Several proclamations of this kind are extant, *temp.* Edward III., and one of the 13th Richard II., wherein it was directed that no markets should be held in these seven shires, to wit, Berks, Surrey, Sussex, Southampton, Wilts, Dorset, and Somerset; but that all victuals should be brought to Portsmouth for the army, then and there laying wait for transportation.

Harbinger.

The High Harbinger was the Quartermaster-general of former times; his office is minutely

(1) "Warrants and Ordinances respecting the collection of a large quantity of corn and provision required for the King's army in Gascony; directed to officials in the counties of Norfolk and Suffolk." *Temp.* Edward I. (*Army and Navy Accounts*, S. P. O.)

described in one of the Harleian MSS. of the sixteenth century (No. 4,685) [1]: "He must know of the Lord-lieutenant-general the place where the army shall assemble to be mustered; and thither must he repair, calling before him the chief rulers of the town, declaring unto them that he is come to provide lodging for the Lord-lieutenant-general and the army; and to charge the said rulers that they send some of their officers to bring him to every house in the town that is able to make any lodging, that he may take a note what beds they make within the town, or suburbs of the same, and to command them to provide victuals sufficient for such soldiers as they do lodge, upon prices reasonable. The harbinger must also make strait commandment, that no householder, upon penalty of imprisonment, do take into his house any man to lodge without billet from him."

At the siege of Carlaverock, in 1300, the Marshal of the army is represented as providing "lodgings" to those who were entitled to them:—

> "Le mareschal li herbergour
> Ki livrent places a logier
> A ceus ke doivent herbergier."—p. 14.

In 1385 (9th Richard II.), an order was sent from the King and Council to all mayors and others, apprising them that William de Drayton and Hugh Spencer had been appointed, with a certain number of men-at-arms and archers, to proceed to the town of Ghent with all possible speed; and that the said

[1] "The Order of a Campe or Army Royall, with the Dutie of every officer belonging to the same." Per R. Con., *Milit.*, 1578.—Apparently Sir Robert Constable. Grose misstates this. (i. 190.)

mayors and others were commanded to give assistance to certain servants appointed by the said William and Hugh to secure decent and sufficient quarters at Dover, Sandwich, and the parts adjacent, such as to them shall seem most proper and convenient for obtaining victuals and necessaries.(1)

In the following year, when an army was ordered to assemble in London in all haste, in anticipation of an invasion from France under Charles VI., an order was sent to the mayor, informing him that, in order that the army and the King's liege-men should be properly fed and lodged, the herbergers of the different leaders would meet the marshal at a street called the Ropery, there to receive quarters from him.(2)

Henry V. issued his commission in 1415 to John Merston and William Enges, directing them to provide quarters at Plymouth, and places adjacent, for James Tiptoft, Knight, seneschal of the Duchy of Aquitaine, his men-at-arms, soldiers, and their horses, who were to embark from thence to the said Duchy; and also to take and provide victuals and other necessaries for them during their stay, to be promptly paid for with the money of John Tiptoft: in the purveance, the fees of the Church to be excepted: the civil magistrates were herein directed to give their assistance.(3)

(1) Rymer.—It appears, by the order immediately succeeding this one, that William and Hugh (called Le Despenser) were to have carried over 200 men-at-arms and 500 archers, but that the expedition was countermanded, and their services transferred to Berwick-upon-Tweed.

(2) "In vico vocato la Roperie." (Rymer.)

(3) *Ibid.*

In the State Paper Office is preserved an account of William de Lokyngton of payments to mariners for the passage of men-at-arms, and shipping 1,100 horses to Aquitaine and Brittany, and mustering the same.(1) When troops had to be transported over sea, orders were issued to the chiefs of the maritime ports to impress shipping for the occasion. Abundant copies of these proclamations, "De Navibus arrestandis," are to be found in Rymer. A valuable illuminated MS. in the King's Library, British Museum, shows the ancient manner of embarking and disembarking horses by lifting up a flap at the stern.(2)

Coat and Conduct Money.

About the time of Henry VII., we first find mention made of COAT and CONDUCT MONEY—a clothing allowance and subsistence for men on joining the army, which was sometimes advanced by the counties where the men were raised, to be afterwards repaid by the Government, as has already been explained.

A military writer of the seventeenth century calls attention to the fact, "that a souldier in garrison being furried in a house, is allowed the best bed and chamber save one, faire sheetes, board-clothes, plates, napkins, towels, dressing of his meate, service at the table, oil, vinegar, mustard, candle-light, fire,"(3) &c., so that in this respect these regulations have undergone but little alteration to the present time.

(1) Army and Navy Accounts, 2 Richard II.
(2) Roy. MS., 20 D. i., fol. 22 and 35.
(3) *Treatise on Military Tactics*, by Edward Davies, 1619.

By the Petition of Right in the 3rd of Charles I., it was declared and enacted, that the people of this land are not by the laws to be burthened with the sojourning of soldiers against their will; and by the 31st Charles II. it was enacted that it shall be lawful for constables and others to billet officers and soldiers on inns, livery stables, ale-houses, victualling-houses, and all houses selling brandy, strong waters, cider, or metheglin, by retail, to be drunk in their houses, and no other, and in no private houses whatsoever.

Field Equipage.

The *impedimenta* of armies may naturally be supposed to have increased with the progress of civilisation; it may, therefore, be a matter of some surprise to find that the field equipage of our ancient armies was so extensive in times which, comparatively speaking, can certainly neither be characterised as refined nor luxurious. The Roman soldiers, we know, carried great weights on their backs,(1) but it does not appear that their mediæval successors carried anything beyond their walking clothes and their arms. We do not hear of great-coats or cloaks until the reign of Elizabeth (see CLOTHING), and "knapsack boys" (boys who carried the men's packs) are mentioned in the Civil War of the seventeenth century.(2) Sir James Turner, writing in 1681, says, "Though I am fairly of opinion that the soldiers should not carry such burthens as the Romans did of old, yet I should

(1) The load which a Roman soldier carried is almost incredible—60 lbs. weight, beside his arms. Under this burden he commonly marched twenty miles a day, and sometimes more. (Vegetius, i. 10.—Adam's *Roman Antiq.*)

(2) *Archæologia*, xxxvi. 231.

have neither horse nor boy allowed to them; it is too much that the bad custom of later times hath eased most of them of the burthen of defensive arms, and, therefore, every one of them both may and should carry his own knapsack, and four or five days' provision of meat. . . . . Though you allow every soldier 2 lbs. of bread and cheese every day, and God knows he gets not so much in four days, suppose he hath a couple of shirts, a pair of stockings, and a pair of shoes in his knapsack, and a hatchet, I say all these will not weigh so much as a head-piece and a corselet, and therefore he may well enough be obliged to carry these."(1)

Order of March.

The order of march was usually in three divisions or columns, under the immediate command of the Constable. The men were marshalled in constableries, and each lord or great man rode in the midst of his own retinue.(2) Edward III.'s army in France, in 1339, marched between three and four leagues a day. In 1346, there were two marshals appointed, and the army marched in three columns, the marshals commanding the right and left, and the King and Black Prince the middle one. Godfrey de Harcourt—one of the marshals—led his division daily some six or seven leagues apart from the King, doing as much damage as he could, and returning to the King's side every night.(3)

(1) *Pallas Armata*, p. 275.

(2) "Et chevauchoient ordonnêment et par connêtablies, chacun sire entre ses gens." (Froissart, i. 76.)

(3) *Ibid.*, i. 221.

From a humble but authentic chronicle, the *Journal of the King's Kitchen*, a precise account is obtained of the day's marches of this army:—

"The King landed at 'Hok,' or 'Hogges,' in Normandy (La Hogue), on Wednesday, 12th July, and the daily operations of his kitchen proceed at the same place till the Tuesday following, when they are transferred to Valognes. The day's stages of the King's march were now Saint Come du Mount, Carenton, Pount Hubert, and Saint Lo. He then appears to have changed his purpose, and to have directed his march towards Caen, arriving there on Wednesday, 26th, the intermediate stages having been Sevance, Torteval, and Funtenay Paynel. He remained five days at Caen, and he left the place on the last day of July for Lisieux, at which place he arrived on the 2nd August, having passed through Treward and Leoperty. He was two days at Lisieux; on the 4th August he was at Durenvile, on the 5th at Limburgh, the 7th at Oil de Boef, and the 8th at Pount Vadreel. The daily stages were now Longvile, Frenose, Appone, Ferelaguillon, and Poissy, where he arrived on the 13th August. He was then about twelve miles from Paris. He remained at Poissy till the 16th, on which day he had begun his march northward. The first day's march was to Grisy, the next to Anty, the next to Trussereux, then to Somerreux, Causeamyneux, and Asshen, where he arrived on the 21st August. He spent the 22nd and 23rd at Asshen.

"Thursday, Angust 24, 'sub foresta de Cressy.'

"Friday, August 25, 'in foresta de Cressy.'

"Saturday, August 26, 'adhuc sub foresta de Cressy.'

"Sunday, August 27, 'in campis sub foresta de Cressy.'

"The clerk of the kitchen attended to his own department, and renders his account without any allusion to the great event which had occurred.

"On Monday, the 28th, the King left the field and was at Valoles; on the 29th, at Mauntenay; on the 30th, at Saint Joce, in Pountif; on the 31st, and on the 1st September, at Chateauneuf; on the 2nd and 3rd, at Vintvill; and on Monday, the 4th September, he arrived before Calais."(1)

In 1359 Edward again entered France with hostile intent. He marched out of Calais early one morning, with all his forces in array. He took the field with the most numerous and best wagon-train that had ever left England. It was said that there were above 6,000 wagons or carts. The King first proceeded to organise his "battles," which were so splendidly attired that it was delightful to behold them. He then directed the Constable, the Earl of March, whom he much loved, to ride in advance with 3,000 men-at-arms (*armures de fer*) and 5,000 archers. Next in order marched the divisions of the marshals, consisting of 3,000 men-at-arms and 5,000 archers; all these marched in close order, following the Constable, and then the King's division. Next came the baggage of the army, which

(1) *Archæologia*, xxxii. 383.

extended for two good leagues, and conveyed all sorts of supplies and articles which had never before been carried with an army, such as hand-mills,[1] ovens, and many other useful articles. The division of the Prince of Wales and his brothers, consisting of 2,500 men-at-arms, all richly habited and ready for immediate action, brought up the rear. Not a single individual was ever left behind, and the daily march did not exceed three leagues.

Besides the above, there were 500 valets of the King's host, with shovels and hatchets, who preceded the wagons to clear the way, and to cut down hedges and bushes that obstructed the passage. (Froissart, i. 417.)

Mechanics also accompanied English armies, to repair any bridge that had been broken down. (*Ibid.*, i. 684, *anno* 1373.) The French army, in 1382, marching towards the field of Rosebeque, was preceded by 1,760 *ouvriers* on foot, to level the roads, fill up hollows, clear away bushes, and so forth. (ii. 232.)

Pontonniers.

In addition to pioneers, the English army, in 1441, was attended by a corps of pontonniers provided with little light boats made of leather and wood, carried on carts, capable of containing three or four persons, and also with all sorts of tackle,

[1] Froissart, from whom this narrative is copied, is inaccurate as to this particular. Hand-mills, among other things, are mentioned by Fordun, xii. 21, as having fallen into the hands of the Scots after the defeat of Edward II. at Bannockburn, in 1314. His words are: "*frumentum et hordeum cum molendinis portatilibus.*"

for the purpose of crossing rivers. (1) From the manner in which this circumstance is mentioned by the French chronicler, it would appear that the French were not equally supplied.

The wagon-train went on increasing, for Froissart tells us that in the following year, the English had 8,000 carts, each drawn by four stout cart-horses, brought over from England! He also mentions the boats made of "*cuir boullu,*" which enabled the lords and rich men to supply themselves abundantly with fish during Lent; and the King had thirty mounted falconers with birds, and sixty couples of strong dogs, and as many greyhounds, and many of the great officers had also their dogs and birds. The army marched in three divisions, each having its own van and rear-guard, and they halted every evening at one league's distance from each other. (i. 427.)

It must have been a pleasant time for the "lords and rich men," and one which they would be in no hurry to put an end to.

According to an *ordonnance* of Louis XI., in 1475, the *Francs archers* of France were munificently endowed with the means of transport for their baggage. One cart drawn by three horses was appointed to every fifteen men, and as the corps

(1) Et avoient des petits bateaux de cuir et de bois, cordes et autres habillements tout propices à faire ponts, qu'ils avoient chargés sur chariots. . . . . Et adonc les dits Anglois boutèrent un batel en l'eau et passèrent (l'Oise) bien doublablement outre, trois ou quatre pour la première fois, lesquels attachèrent une forte corde d'un bord à l'autre, à tout petits poinçons qu'ils avoient liés par le milieu." (Monstrelet, l. ii., ch. cclxi.)

consisted of 16,000, it follows that if the whole were to be assembled in marching order, they would have been accompanied by a train of 1,067 carts or wagons, drawn by 3,200 horses. (1) But even this, if Saint-Remy is to be believed, is less than the proportion of cartage allowed by the Duke of Burgundy, in 1411, to an army of 40,000 to 50,000 Flemings. They had 12,000 carts laden with arms and clothing. (2)

Henry V., preparing for Harfleur, issued writs directed to Robert Hunt, sergeant of the wagons of the household, to provide a sufficient quantity of carts and wagons, and carpenters, smiths, wood and iron, to construct them, with the necessary horses. Also, to John Southmede, "fare-carter" (*i.e.*, cart-wright), to provide sixty two-wheeled carts, with collars, harness, halters, *leather-pipes*, and all other things requisite for carts. (3) These leather pipes were doubtless for the purpose of preventing the horses from being galled by the gearing, as we see used at the present day.

From a MS. in the Harleian Collection, No. 847, containing a system of castrametation in the time of Queen Elizabeth, we obtain particulars of the dimensions of the wagons of that date :—

"Every waggon having three horses is allowed twelve foot in length, which is the length of the waggon, and eighteen foote in breadth, six wherof

(1) *Collection des Ordonnances*, tom. xviii., p. 110.
(2) *Histoire de Charles VI.*, ch. ix.
(3) Rymer, *sub anno* 1415.—Nicolas, *Agincourt*, 17.

is allowed for the breadth of the waggon (for the axel-tree is five foote and halfe), and the other twelve foote for the three horses."

In the Cowdray picture of the siege of Boulogne by Henry VIII., (1) an accurate insight as to the mode of carrying on a siege at that date is afforded to us. We learn the form of encampment, the method of carrying on approaches, and the ordinary business of besiegers. We have correct representations of great ordnance, mortars and military machines, with the manner of working them, and the various implements of war, ordnance stores, fascines, camp colours, ensigns, banners, guidons, and tents, as also the bread, ammunition, and baggage wagons.

The carts and wagons accompanying an army were made to perform another important duty, besides the conveyance of provisions; when the army halted, they were so drawn up as to make a rampart against attack, the back of one wagon being set within the shafts of the other. (2) At Buironfosse, in 1339, the carts of the English army were drawn up in rear, so as to fortify the position. (3) Sometimes an army was protected by a ditch dug all round it, and by big trees felled and piled so as to prevent the approach of the enemy, as is recorded of the French, in a letter of Edward III., addressed to

(1) Engraved for Soc. Ant., and described by Sir Joseph Ayloffe in *Archæologia*, iii.

(2) Guiart, 2nd part, *anno* 1304.

(3) "Et arroutèrent tous leurs charrois par derrière eux, et s'en fortifièrent." (Froissart, i. 82.)

the Archbishop of Canterbury, and preserved in the History of Robert of Avesbury. (1)

In 1485, Richard III., on his march to Leicester, previous to the battle of Bosworth Field, placed the baggage in column in the centre, the cavalry marching on the flanks. (2) The men marched in ranks of five. The rays of the sun were still an object of attention to combatants, for the chronicler relates that "between both armies there was a great morass, which the Earl of Richmond left on his right hand, for this intent, that it should be on that side a defence for his part, and in so doing he had the sun at his back and in the faces of his enemies."

The ordinary day's march of an army was about three leagues, and in that respect modern improvements cannot effect much alteration. The day's march of the soldier to join the army was from twelve to fifteen miles. (3) In marching, the infantry of Gustavus Adolphus appear to have performed great feats. Celerity was everything with that eminent commander. It was this innovation on the strategy of the times that enabled him to achieve such brilliant success on the slow-moving, heavily-armed Imperialists. To attain this object, he re-

(1) "Et fisrent fosses entour eaux, et couperent les grosses arbres pour nous tollier la venue à eaux."

(2) "In the middle part of the armie, he appointed the traffick and carriage apperteyning to the army, and the wings of horsemen coastyng and rangyng on every side; and keeping this array he entered the toune of Lycester." (Grafton's *Chron.*, p. 149.)

(3) In 1627 the conduct-money—*i.e.*, marching allowance—was 8d. per diem for a day's march of twelve miles; in 1640 it was settled at 8d. for a march of not less than fifteen miles. (See Rymer, *sub annis.*)

moved the armour from his men, and shortened and lightened their arms. He even supplied his artillery with leathern guns, to render them more portable. In Harte's *History* we read that "the common march of infantry was sixteen or eighteen miles a day. In a journal of each day's marching which a Scottish regiment made for six years successively, I find that quantity to establish the medium. . . . In cases of emergency and importance, it was usual to stretch the journey to twenty-two miles."(1) It must also be borne in mind that the arms and appointments, even with the improvements, were considerably heavier than they are at present.

The following account of the march of the London trained bands to Newbury is curious. It is copied from one of the Commonwealth pamphlets in the British Museum, entitled *The Manner of the March of the Trained Bands* (No. 126, E. $\frac{69}{3}$). Opportunities of locomotion were then so rare, that probably these citizens were leaving the metropolis for the first time.

"*The manner of the March and Embattailing of the Trained Bands and Auxiliaries of the City of London, Hamlets, Westminster Men, and the Borough of Southwark, as it was appointed by the Hon*[ble.] *Committee of the Militia, and performed on Tuesday, 26th September*, 1643."

"1. That the Regiments be at the place of Randevouze by 7 o'clock, to march into the Field.

(1) i., p., xxxviii. See also vol. ii., pp. 13, 22, 55, 58, and 79.

"*The Order of the March.*

"1. The City Regiments—white, yellow, green, and orange.

"2. The Hamlets Regiment of Trained men.

"3. Westminster Regiment of Trained men.

"4. Regiment of Trained men in Southwarke.

"5. Auxiliaries of the Hamlets.

"6. Auxiliaries of Southwarke.

"*The Place of Randevouze in the City.*

"The White Regiment in Paul's Churchyard, where the Cross stands.

"The Yellow . . . . among the Drapers.

"The Green Regiment in Old Bayly, Pye Corner, and part of Smithfield.

"The Orange Regiment in Fleet Street, and to march after the Green Regiment.

"The Hamlets in Smithfield and Aldersgate Street, and to march after the Orange.

"The Westminster men in Holborne, and down towards Newgate.

"The Reg$^{t.}$ of Southwarke men in Gracious Street, Canon Street, Watling Street, and so to St. Austin's Gate, and to march after the Westminster Reg$^{t.}$

"Distance in march between companies, 12 foot.

"Between regiments, 30 foot.

"Auxiliaries of the Hamlets in Fenchurch and Gracious Street, to march in rear of the Hamlets.

"The companies in each regiment to march successively, according to signiority, as first—

"1. Colonel's company.	3. Sergeant-Major's.
2. Lieut.-Colonel's.	4. Eldest Captain's.

"The four Regiments of the City in the New Artillery Ground.

"The Auxiliaries to be drawn up into one body, in a regimentall way, in the place where Moore-ditch was, which body must consist of two grand Divisions, according to the other regiments.

"When the Companies of each regiment are so drawn up, the pikes of each grand division to march clear of the musketeers, and to close both musketts and pikes; and then the musketeers of each grand Division to be equally divided, and to sleeve up and flank the pikes.

"The Yellow Reg$^{t.}$ of the City to take place at the farthest end estward, next the fort at Pimlico, facing towards Balmes," &c. ([1])

"*True Relation of the Diurnall Marchings of the Red and Bleu Regiments of the Trained Bands of the City of London, as also of the three Regiments of the Auxiliary force, who marched forth for the relief of the City of Glocester, from Aug.* 23 *to Sept.* 28, 1648. (E. $\frac{69}{15}$.)

"Upon Wednesday, 23 Aug^{t}, our Red Reg$^{t.}$ of Trained Bands marched into the New Artillery Ground, and from thence, that night, we marched to Brainford, and came thither about 1 o'clock in the morning.

([1]) A curious MS. in the Royal United Service Institution gives the numbers and ensigns of the Trained-Bands, and the Guydons of the Dragoons.

"Upon Friday, 25, we advanced from Branford to Uxbridge.

"Saturday, 26, we advanced to a Town 6 miles beyond Uxbridge, called Chaffan.

"Sabbath-day, 27, we advanced from Chaffan to a village called Chessun. Our whole reg$^{t.}$ was quartered at one Mr. Cheyney's house, an Esquire, when we were well accommodated for Beer, having great plenty. Two or three hundred of us this night lay in a barn.

"Monday, 28, we advanced to a town called Asson-Clinton, a little village three miles from Alresbury.

"Wednesday, 30, we advanced from thence to a village called Clayden. Our Reg$^{t.}$ was quartered this night at Sir Ralph Verney's house, the Parliament man; his father, the King's Standard-bearer, was slain at Edgehill.

"Thursday, 31, from thence to a village called Stretton Ardley.

"Friday, 1 Sept., to Bayard's Green, in Oxfordshire, being three miles distant from Brackley, and eight miles from Banbury, where our Brigade met my Lord Generall, with his whole army. It was a goodly and glorious sight to see the whole army of horse and foot together. It is conceived that we did consist of 15,000 horse and foot.

"Saturday, 2 Sept., to Hooknorton, 25 miles from Glocester.

"Sabbath-day, we advanced to a little village called Addington, about one mile from Stow the Old, and about 20 miles from Glocester. Our reg$^{t.}$ stood in the open field all night, having neither bread nor

water to refresh ourselves, having also marched the day before without sustenance; neither durst we kindle any fire, though it was a very cold night.

"From hence we marched to a village called Souldem, 4 miles from Banbury.

"Monday, 4 Sept., we got some refreshment for our souldiers, which was no sooner done, but news was brought to us that the enemy was within half a mile of the Town, which proved to be true, for presently one rid down to us, having his horse shot in the neck, all bloody. In the first skirmish we lost but one man, who was slain by our own cannon through his own negligence, and another sore hurt and burnt by the same peece.

"Tuesday, Sept. 5, we advanced from that field near to a town called Prestbury, within sight of Glocester, about 7 miles from it.

"Wednesday, Sept. 6. This day our two reg$^{ts.}$ of the Trained bands marched to a little village called Norton, three miles wide of Gloster, and four miles from Teuxbury," &c.

Encampment.

The ancient mode of encamping was, undoubtedly, under tents, which were in use from the most remote antiquity. Nomad races, roving from pasturage to pasturage, must necessarily have had recourse to such a protection. Skins of animals, extended on poles, appear to have been used at first: so in Ezekiel, "Thou shalt make a covering for the tent of rams' skins."

The tents of the Bedouin Arab tribes are probably

constructed on the same plan as those which were the dwelling-places of Abraham and Jacob. (Heb. xi. 9.)

The tents of the Roman soldiers were covered with leather or skins, extended by ropes.

Our Anglo-Saxon ancestors had tents apparently of very simple construction, being only lines stretched from the top of a strong pole, and fastened to wooden hooks driven into the ground, covered over with a thick and strong cloth, or leather; on the top appears a roof or guard, sloping either way (like the ridge of a house, to prevent the rain from entering). To some of the tents doors were adapted; others were closed only with curtains.(1)

In the metrical account of the siege of Carlaverock, we obtain a description of the army under Edward II. "As soon as we were drawn up," says the poet, "we were quartered by the marshal, and then might be seen houses built without carpenters or masons, of many different fashions, and many a cord stretched, with white and coloured cloth; with many a pin driven into the ground (*meint poisson en terre fichie*); many a large tree cut down to make huts; and leaves, herbs, and flowers, gathered in the woods, which were strewed within; and there our people took up their quarters."(2) From this we learn that the tents were of various forms as well as colours. As each officer had his place and proportion of ground, we may infer that some regular form of encampment was observed; and also, in addition to the tents, there were many wooden

(1) See Strutt's *Horda*, i. 31. (2) Nicolas's translation, p. 65.

huts erected: these were probably for the use of the private soldiers.

A variety of tents of the fourteenth century is represented in the valuable illuminated MS. of *The Romance of King Meliadus*, in the British Museum. (Add. MS., 12,228.) The streamers which surmount their summits were called pennoncels, and were often charged with heraldic figures or mottoes—as we learn from the following passage of *Richard Cœur-de-Lion*, a romance of same date—and also with the figures of animals:—

> "King Richard took the pavillouns
> Of sendal and of cyclatoun.
> They were in shape of castels;
> Of gold and silver the pencels.
> Many were the faire gest
> Thereon were written, and wild beast;
> Tigers, dragons, lions, leopard,
> All this wan the King Richard."

In the account of John Cook, the Clerk of the King's Great Wardrobe, for moneys expended by him from 19 Edward III., 1345, to 23 Edward III., 1349, is a payment to Thomas de Roldeston for wax used by him in making the King's tent, which was formed of the material called cloth of Reyns.(1)

The plan of a magnificent tent, which doubtless was used by Henry VIII. at the Field of the Cloth of Gold, is delineated in a MS. of the Cottonian Library (*Augustus*, 3). It was made of a rich crimson, embroidered and wrought with ornaments of gold all around; at the bottom of the roof is a rich

(1) *Archæologia*, xxxii. 381. See also the tents in the miniatures of the "History of Richard II.," in *Archæologia*, xx.

fringe of gold and crimson silk; above the fringe is a narrow compartment, like a moulding, which runs all round the tent, on which is written in letters of gold, DEV : ET : DROIT : SEMPER : VIVAT : IN : ÆTERNO; and on the top is a running ornament, carved and richly gilt, with the lion, the hart, the greyhound, and dragon, alternately holding pennoncels, with the crown and the *fleur-de-lys* at the tops: on these little banners are the arms of England, roses and portcullis.

In *Archæologia*, vol. xviii., p. 325, is an account of the numerous tents of diverse forms, provided for Henry VIII.'s household in proceeding to the siege of Boulogne.

A MS. in the Harleian Collection, No. 7,364, apparently of the date of Queen Elizabeth's reign, contains a system of castrametation,(1) and every particular is minutely noticed. It is copied in Grose's *History*, ii. 15.

A curious MS. preserved in the College of Arms, probably written in the reign of Richard III. or Henry VII. (L. 8, fol. 85), gives the camp equipage then deemed necessary for barons and knights. In the list which contains all the articles of the toilet, both as to arms and body clothes, we find: "A cart or a charyet for your tentes and pavylions; a pavylion for yourself; a hale for horses; a hale for your servantes; officers' necessaryes—a chappeleyn, that to the masse

(1) "Castrametation," says Sir James Turner, "is the orderly disposing and giving a due proportion of ground to every regiment, troop, and company of horse and foot, wherein to pitch their tents or build their huts," &c. (*Pallas Armata*, p. 285.)

belongeth, harberours, purveyours for your stable and for your vitayles, a barber-surgeon, a smythe with his necessaries, a sadeler, an armourer w^t bycorn, and hys other necessaries; a trusty chosen man to bere the ban^r, anoder for the standerd, a yeoman for your tentes, bysides horsekeepers, sumptermen, carters."

Some of the items are curious: for instance, the three next which follow in their order:—

"Two or three hokeys to cut corne and fetches."

"Item, a chappelyn w^t the oornamentes, that ys to say, vestymentis, massbooke, chales, superaltare, a box with store of syngyng bred, store of wax-candell, bysydes his portens."

"And a cooke w^t a caudron, a gredyron, a ladill, dishes, a spit, a bage w^t poudres, salt, a flagon, or a bottell wythe vyneger and oyle olyve," &c.

The last which will be mentioned here, is, "connoysaunce betyn in oyle colour for your cariage," which certainly gives us a very early notion of arms being painted on equipages.

Patten, in his account of Somerset's expedition, gives a somewhat complicated description of the Scots' mode of encampment. (Just after the battle of Pinkey, in 1547.) "Here now, to say sumwhat of the maner of their campe: As they had no pauilions or round houses, of ony commendable cumpass, so wear theer fewe oother tentes with posts, as ye used maner of makyng is: And of these fewe also, none of abooue xx. foot length, but most far vnder; for the most part all very sumptuously beset (after their facion) for the love of Fraunce, with fleur-de-lices, sum

of blue buckeram, sum of black, and sum of oother colours. These whyte ridges (as I calld them), that as we stood on Fauxsyde Bray, dyd make so great mouster towards vs, which I dyd take then to be a number of tentes; when we cam, we found it a lynnen draperie of the coorser camryk in dede, for it was all of canuas shetes, and wear the tenticles, or rather cabayns and couches of theyr souldiours; the which (much after the common bylding of their countree beside) had they framed of iiii. sticks, about an elle long a pece, whearof ii. fastened toogyther at one end aloft, and the ii. endes beneath stict in the ground, an elle a sunder, standing in facion lyke the bowe of a soowes yoke: Over ii. such bowes (one as it wear at their hed, thoother at their feet) they stretched a shete doun on both sides, whearby their cabain becam roofed lyke a ridge, but skant shit at both endes, and not very close beneath on the sydes, onles their stiks wear the shorter, or their wiues the more liberal to lend them larger naperie: Howbeit, win they had lyned them, and stuft them so thick with strawe, when they wear couched, thei wear as warme as thei had bene wrapt in horsedung."

Our modern word "marquee" is doubtless derived from the French *marquise*, which is described in Bescherelle's *Dictionnaire National* as "une tente ordinairement rayée et d'une coupe élégante, confectionnée en fort coutil, pour prévenir l'infiltration de l'eau, et que l'on met par dessus celle des officiers."

Military Rewards.

The military rewards of ancient times were generally grants of lands and donations of money.

The Conqueror was very profuse in bestowing upon his followers the forfeited lands of the English proprietors; such grants were held by military service. In process of time, as land became more cultivated, and the government more settled, it was found more convenient to reward military services with honours, such as making a distinguished soldier a knight or banneret, or by granting arms, or additional heraldic bearings to those who already possessed them. Instances of grants of money for services have been recorded in the course of this work.

In the Rolls of Parliament (4th Edward IV., p. 545, A.D. 1464) are two grants to private soldiers, "humble and true liegemen," for their good behaviour and sufferings; the first, to Rauf Vestynden, of an annuity of £10 per annum, by letters patent under the Great Seal, till rewarded by an office, "for the good and agreeable service which he did unto us, in berying and holding of our standard of the black bull, at the battle of Sherborne, in Elmett." (1) The other to John Sclatter, an annuity of iiii. marks for the loss of his hand at the battle of Wakefield (under Edward's father, the Duke of York), and the other hand so maimed that he could neither clothe nor feed himself, out of the profits of a mill, called Lownes Mill, in the parish of Lancaster. (p. 547.)

By the 48th of Elizabeth power was given to the majority of the justices of the peace to charge every parish for a weekly relief of maimed soldiers and

(1) "Elmete of Bede is Barwick-in-Elmete, West Riding York." (Sharpe's *British Gazetteer*.)

mariners, so that no parish paid weekly above tenpence, nor under twopence; nor any county, which consisted of above fifty parishes, to pay above sixpence. Every maimed soldier or mariner was to be provided with a certificate under the hand and seal of the commander under whom he had served, containing the particulars of his hurts and services. Upon such certificate the treasurer of counties might allow him relief until the next quarter-session; and this allowance to him that had not borne offices might not exceed £10; to an officer under a lieutenant, £15; to a lieutenant, £20. A soldier or mariner that begs or counterfeits a certificate, to suffer punishment as a common rogue, and to lose his pension, if he had any.

During Charles I.'s civil war, a resolution was passed by both Houses of Parliament, empowering the raising of parochial funds for the relief of disabled soldiers:—

"*Monday, March* 6, 1643.—Whereas diverse well affected persons have gone forth in the army raised by the Parliament for the defence of the Parliament, religion, lives, and liberties of the subjects of England, and in fight have received diverse wounds and maims in their bodies, whereby they are disabled to relieve themselves by their usual labours; and diverse others have lost their lives in the said service, whereby they have left their wives and children destitute of relief to support and sustain them; the Lords and Commons assembled in Parliament, taking the same into their pious and charitable consideration, ... do hereby ordain, that every parish within the kingdom

of England, wherein any such persons, either maimed or slain, did last inhabit before their going forth into the said service, shall raise a competent stock of money, by way of assessment, upon the inhabitants of the several parishes, for the relief of the said maimed soldiers, widows, and fatherless children of the slain persons," &c. (*Vide* Rushworth.)

It may not be generally known that a silver decoration was instituted by Charles I. for the purpose of rewarding (like the Victoria Cross) acts of distinguished bravery. The idea seems to have been originated by Thomas Bushell, as the King addressed a letter of thanks to him for many acts of devoted loyalty, and amongst them that of rewarding gallant services with a silver badge.[1]

The only specimen of this badge at present known is in the collection of Edward Hawkins, Esq. (late of the British Museum), who also possesses a copy of the Proclamation under which it was issued, and it is too curious not to be transcribed here:—

"CHARLES R.

"Trusty and well beloved, We greet you well. Whereas we have received information, that those Souldiers which have been forward to serve us in the Forlorn Hope, are not looked upon according to their merited valour and loyal service. We do therefore require that from henceforward the Commander-in-Chief, both of horse and foot, which lead out the

[1] "Thomas Bushell, Esq., Warden of the lead mines in Cardiganshire, which were so rich in silver as to come under the designation of mines royal." (Ellis's *Original Letters*, 2 S., vol. iii., p. 311.)

Forlorn Hope, upon whom also we mean to bestow special Tokens of our Princely favour, do signify in writing the names of those Souldiers whom they find most forward in serving their King and Country, that care may be taken to reward their deservings, and make them specially known to all our good subjects. For which end we have thought fit to require Sir William Parkhurst, Knt., and Thomas Bushell, Esquire, Wardens of our Mint, to provide, from time to time, certain *Badges of Silver*, containing *our royal image* and *that of our dearest son Prince Charles*, to be delivered to wear on the breast of every man who shall be certified under the hand of their Commander-in-Chief to have done us faithful service in the Forlorn Hope; and we do therefore most strictly command, that no Souldier at any time do sell, nor any of our subjects presume to buy or wear, any of these said Badges, other than they to whom we shall give the same; and that under such pains and punishment as Our Council at War shall think fit to inflict, if any shall presume to offend against this our Royal command; and we further require the said Commanders and Wardens of our Mint to keep several Registers of the Names of those, and of their country, for whom they shall give their certificate.

"Given our Court at Oxford, the eighteenth day of May, 1643.

"To our trusty and well beloved Sir Thomas Parkhurst, and Thomas Bushell, Esquire, Wardens of our Mint at Oxford."

In consequence of the estimation in which these marks of military merit were held, similar ones were instituted on the other side, and oval silver badges were struck to commemorate the victory at Naseby over the Royal troops.

Martial Law.

It is an indisputable fact that a body of armed men could not have been assembled, either as temporary forces, or as professional soldiers, without being subjected to certain stringent regulations—apart from civil law—both with reference to their own immediate discipline, and with a view to deter them from the perpetration of crimes and offences towards the inhabitants of the countries in which they might be quartered. Hence the foundation of Martial or Military Law.

"Martial law," says Sir William Blackstone,(1) "is built upon no settled principles, but is entirely arbitrary in its decisions, and is, as Sir Matthew Hale observes (*Hist. C. L.*, c. ii.), in truth and reality no law, but something indulged rather than allowed as law. The necessity of order and discipline in an army is the only thing which can give it countenance; and therefore it ought not to be permitted in time of peace, when the King's Courts are open for all persons to receive justice according to the law of the land." But, with due deference to such eminent authority, it may be affirmed that the *principles* of military law are as certain, determinate, and immutable, as are those of the common and statutary law which regulate the civil classes of society. (2)

(1) *Com.*, b. i., c. 13. (2) Tytler, *On Military Law*, p. 14.

The right of the Sovereign to command the army dates from the great feudal bond by which subjects were tied down to military service when called upon by the Crown. This had been solemnly recognised by all the states of the realm, in the statute of Westminster in 1279 (7th Edw. I.). So indisputably was this considered the prerogative of the Crown, and every person fit to carry arms was understood to be so strictly bound, by the natural allegiance of a subject, to obey the King's summons, and appear in arms whenever called upon to attend the royal standard, that, by a subsequent statute, in 1328 (1 Edw. III., s. ii., c. 15), it is declared "that no man shall bind himself by any written obligation to come armed to the King, for that every subject is at his commandment." The soldier, when he has joined the army, does not forfeit his rights of citizenship, but his professional conduct is regulated by Articles of War, which the Sovereign at his discretion has a right to enact.

It does not, however, appear that the Sovereigns of England, in virtue of their constitutional prerogative, exercised a power entirely discretionary over the army, or a jurisdiction altogether arbitrary. The statute above recited of Edward I. acknowledges the King's power to punish only "according to the laws and usages of the realm." And it is certain that the kings of England never personally interfered in inflicting punishments for military offences any more than for those crimes and delinquencies which were cognisable by the civil courts. For the government

of the armies in the field our early kings issued ordinances of war, some of which are extant, and will be afterwards noticed. The first record of this kind is of the time of King John; there is also one of Richard I., made in the first year of his reign, A.D. 1189, when about to proceed to the Holy Land;(1) one of Richard II., in the ninth year of his reign (A.D. 1386), framed with the assistance of a council of war.(2) Henry V. issued Rules and Ordinances of War at Mans in 1415,(3) and also orders for the Governor of Rouen in 1419,(4) which exhibit a specimen of that King's garrison regulations. Some orders for the English army, in 1486 (2 Hen. VII.), before the battle of Stoke, are to be found in Leland's *Collectanea* (vol. iv., p. 213). The military code of Henry VIII., in 1524, is preserved in a MS. in the College of Arms. After this period, ordinances of war appear to have been issued by the commanders of expeditions then on foot, the King's authority for that purpose being stated in their commissions. Thus James I. gave full power to Sir Horace Vere, appointed captain-general of the army to be sent to the Palatinate in 1622, to make regulations, laws, and proclamations for the government of that army;(5) and in the commission granted by Charles I. to Thomas Earl of Arundel, in 1640, to be captain-general of

(1) Rymer.

(2) MS. Cotton, *Nero*, D. vi. There is also a copy in the library of the College of Arms.

(3) Printed in *Appen.*, No. viii., Nicolas's *Agincourt*.

(4) Rymer.

(5) Rymer.

the army to be employed at home, "full power and authority" is given to him "to make, constitute, and ordain laws, ordinances, and proclamations, from time to time as the case may require, for the good government and order of all the persons that shall be under your command, and to do, execute, and use against the said enemies, traitors, and rebels, and such other like offenders, the Law called Marshal-Law, according to the Law-Marshal."(1)

So much for military regulations in time of war. But in peace, although there was no standing army, this country never was without a certain number of armed men, kept on permanent pay, for castle-guards and defence of the marches; and the men of the counties eligible for military service were at stated times called out and inspected. It is clear that the civil courts were not competent to the trial of mutiny, disobedience of orders, insubordination, breach of arrest, false musters, and such like offences.

The distinction between Martial and Military Law appears to be this—*Martial Law* extends to *all persons; Military Law* to all *military* persons, but not to those in a civil capacity.(2) It has ever been deemed constitutional for the Sovereign, in times o. extraordinary disorder, to use the military power of the Crown for its suppression, and for the restoring of public peace. The extension of such a power beyond the law is only justified by necessity, and is to be used with the utmost circumspection. An instance is cited by Tytler, in Wat Tyler's rebellion:

(1) Rymer. (2) See Griffith's *Notes on Military Law*, p. 20.

when he and some of the most daring leaders were put to death at the feet of the King, this high exercise of the military power was never questioned; but when, after the actual cessation of the rebellion, its ringleaders were seized, and many of them put to death without any form of trial, by the sole authority of the King's officers, the mode of their punishment excited general dissatisfaction, and it was found necessary for the King to use the authority of Parliament to grant a general pardon to those who exceeded the just bounds of law in the punishment of those rebels. (1)

When Charles I. billeted soldiers upon those of his subjects who refused to lend money to support the war in the Palatinate,(2) this was an exercise of the military power clearly unconstitutional. And when, in consequence of the general complaints of the riotous conduct of the soldiery, he saw no other means of repressing the evil than by a most rigorous exercise of martial law, and thereupon issued commissions to the lord-lieutenants and their deputies to proceed against all soldiers and other disorderly persons who should be guilty of felonies, robberies, murders, or other misdemeanors, and to execute all such persons immediately, as in time of war,(3) this elicited a protest from the State, and the Petition of Right was the result, levelled at these and other manifest abuses of the prerogative of the Crown.

(1) 5 Rich. II., st. i., c. 6.—Tytler, p. 49.
(2) See before, vol. i., p. 399.
(3) Rymer, vol. xviii., p. 731.—Rushworth, vol. i., p. 168.

Court of Chivalry.

For the trial of military crimes, the King's Court of Chivalry, or the Court of the High Constable and Marshal of England, had an exclusive jurisdiction. It was considered as a military court, or court of honour, when held before the Earl Marshal only; and as a criminal court when held before the Lord High Constable jointly with the Earl Marshal.

The 13th Richard II., c. 2, defines the power of the constable, to whom "it pertaineth to have cognizance of contracts touching deeds of arms, and of war out of the realm, and also of things which touch arms or war within the realm, *which cannot be determined nor discussed by the common law;* with other usages and customs to the same matters pertaining, which other constables heretofore have duly and reasonably used in their time."

The Constable's and Marshal's Court exercised its authority and inflicted punishments until the reign of Henry VIII., when the Lord High Constable, Edward Duke of Buckingham, being attainted and executed for high treason in 1521, the office became forfeited to the Crown; nor was there afterwards any permanent office of Constable in England; the King, from that time forward, only issuing his commission occasionally, *pro hac vice,* for the creation of a High Constable for the particular purpose of judging in certain high crimes of state. The Court of Chivalry, though never formally abolished, has become extinguished, on account of the restrictions on its jurisdiction, and its incapacity to enforce its judgments.

The power granted to Commanders-in-Chief to enact ordinances for the army under their command, and to sit in judgment themselves, or to appoint deputies for that purpose, would suspend the necessity of the Constable's or Marshal's court, and, gradually, a new tribunal seems to have come into operation, under the denomination of a Council of War, at which officers of a certain rank had a right to sit; and instead of the Marshal, an officer styled President of the High Court of War presided, assisted by a judge-advocate. It is uncertain when Courts-Martial, according to their present form, were first held. They are mentioned, with the distinction of general and regimental, in the Ordinances of War of James II., A.D. 1686. (*Vide* Grose, ii. 61.)

In cases of great importance, military crimes were tried before Parliament. Henry de Essex, hereditary standard-bearer to Henry II., was, for cowardice in Wales, deprived of his lands, shorn, and shut up for life as a monk in the abbey of Reading.[1]

William de Weston was tried before the Parliament for delivering up the Castle of Outherwyk. His defence was as follows: "Plese Vous savoir coment par un Lundy, houre de prime, viendront les Enemys pur le dit Chastel asseger, à la nombre entour ii*m*. et vi*c*. hommes d'armes, et vii*c*. arblasters

(1) 3 Henry II., 1157.—He threw down the standard and fled, which was laid to his charge by one Robert de Mountford, with whom he fought a combat in trial of the question, and was overcome. The King, however, spared his life. (*Vide* Speed, p. 466; Stowe, 149; and Hollinshed, iii., pt. i.)

de Genevoys, ovesq v*m*. de la communauté du pays aientz ix. grosses cannons, un grant engyn, et un trebuchet outre ascun mesure que l'en avoit unqes vieu par devaunt en cettes marches."

The unfortunate castellan stated that the strength of his garrison was not sufficient to contend against such a formidable armament. He held out for several days, but the case being hopeless, he surrendered upon terms. He was sentenced to be hanged, drawn, and quartered. (Rolls of Parl., 1st Richard II., 1377, p. 10.)

John Lord de Gomenys (*Sire de Gomenys*) was also arraigned at the same date before the same tribunal for surrendering the town and castle of Arde. As he was a *gentilhomme* and banneret, and was not a liege-man, he was sentenced to be simply beheaded.

Capital Punishments.

Of ancient capital punishments there appear to have been three—beheading, hanging, and drowning; the first two occur in several of the Ordinances of War, the last only in the charter of Richard I. Hanging was the punishment inflicted on spies. They were generally suspended on an eminence, and their bodies left hanging as a terror to others. The following is an extract from the charter of King Richard I.:—

"Richard, by the grace of God, King of England, &c.,—To all his men going by sea to Jerusalem, greeting. Know ye, that by the common council of all good men, we have made the underwritten ordonnances. He who kills a man on shipboard shall be bound to the dead man, and thrown into the sea: if

the man be killed on shore, the slayer shall be bound to the dead body, and buried with it. Any one convicted by lawful witnesses of having drawn his knife to strike another, or who shall have drawn blood of him, to lose his hand. If he shall have only struck with the palm of his hand, without drawing blood, he shall be thrice plunged in the sea. Any one who shall reproach, abuse, or curse his companion, shall, for every time he is convicted thereof, give him so many ounces of silver. Any one convicted of a theft shall be shorn like a champion, boiling pitch shall be poured on his head, and down of feathers shaken over it, that he may be known; and he shall be set on shore at the first land at which the ship touches.

"Witness myself at Chinon."

By a subsequent and joint regulation of Richard and Philip for the government of the army, it was ordered that none in the armies should play for money except knights and clergy, and they were not to lose more than £20 in day and night. Those serving in the army (*servientes*) might play in the King's mansion, but if elsewhere, they were to be whipped naked through the army for three days. Mariners who gambled were to be dipped for three days in the sea.(1)

It would appear, however, that in the feudal armies corporal punishments were not so common as they have been in modern times; the soldiers, being generally possessed of some property, were punished

(1) Hoveden, 675.

by forfeiture and fines. Of corporal punishments there was only one that could be inflicted on an officer; this was boring the tongue with a hot iron for blasphemy, a punishment that remained in force till the reign of Queen Anne.(1)

Riding the wooden horse was a punishment formerly much in use. It was formed of planks nailed together, so as to form a sharp ridge or angle almost eight or nine feet long; the ridge represented the back of the horse; it was supported by four posts or legs, about six or seven feet long; placed on a stand made movable by trucks; and to complete the resemblance, a head and tail were added. In the items of disbursements for the Coldstream Guards in 1701, is, "*for a wooden horse*, 17s. 6d." (2) It was a cruel punishment. Soldiers were placed upon it, with their hands tied behind them, and frequently, to increase the punishment, muskets were tied to their legs, (3) to prevent, as it was jocularly said, their horse from kicking them off. "Two soldiers were this day (Dec. 19, 1643) tried for running away from their colours. The one was a trooper, and was sentenced to ride the wooden horse in the Palace of Westminster, and have two muskets tied with match to each leg, and there to sit for the space of one hour;

(1) Grose, ii. 106.

(2) Mackinnon's *Hist.*, App., 308.

(3) "Do military men of those times understand the wooden horse? He is a mere triangular ridge or roof of wood set on four sticks, with absurd head and tail superadded. And you ride him bare-backed, in face of the world, frequently with muskets tied to your feet in a very uneasy manner." (Letter from Oliver Cromwell. Carlyle, ii. 22.)

and the sentence against the other was respited." (King's Pamphlets, E. xvii., No. 12.) At length the practice was discontinued, as it was calculated materially to injure the men. Grose, who gives the design of one (ii. 108), says that the remains of a wooden horse were standing on the parade at Portsmouth about the year 1760.

In a work entitled *Worcester in Olden Times*, by J. E. Noake, an illustration of a wooden horse, with his rider upon him, is copied from an old print. The costume of the rider appears to be of the reign of George II. The woodcut reminds us of a passage in *Old Mortality* (ch. iv.): "We'll have him to the Guard-house, and teach him to ride the colt foaled of an acorn, with a brace of carabines at each foot to keep him steady."

This instrument of punishment was in use in the old City Guard of Edinburgh. (See Kay's *Edinburgh Portraits*, i. 429. See remarks, and woodcut, in *Archæol. Jour.*, xiv. 97.)

Running the gantelope (or gantlet, as it was called by abbreviation) was a punishment in some armies for disgraceful conduct, such as theft. But it does not appear ever to have been practised in the English service.[1] Illustrations of the wooden horse, gantelope, and other military punishments, are figured in Fleming's *Vollkommene Teutshe Soldat*, Leipzig, 1726.

Imprisonment was a punishment inflicted on officers and privates, as may be seen in the different

[1] James's *Mil. Dict.*

ordinances of war. Sir Francis Vere, in 1591, mentions the escape of an English gentleman, to the enemy, " whom, for using unreverend and slaunderous speech to her Ma[tie], had been long kept in prison." He was re-taken and executed. (1)

Cashiering, as is well known, is the dismissal with disgrace from service in the Royal army. It is derived from the French word *casser*, to break, and it had not originally the meaning now attached to it. Originally it had reference to the reduction or disbanding of corps; thus in Carew's *Pacata Hibernia* (i. 214), "He had reduced the Province to such tearmes, as that he could endure the cashiering of fiue hundred Foot." Again, " In discharging of companies which were growen weake, whereof two thousand in list were casheered." (ii. 453.)

Treatment of Prisoners.

The barbarous treatment of prisoners of war is a proof of the ferocity of men's minds in the Middle Ages, and of the inefficacy of that system which inculcated courteous demeanour, but left no scope for compassion and forgiveness. Even the homage paid to woman failed in averting acts of cruelty towards captives of the fair sex.

Thus Edward I., in 1306, gives directions to the chamberlain of Scotland or his deputy, to erect in one of the turrets of the castle of Berwick-upon-Tweed a cage of strong lattice-work, with posts and bars, and well strengthened with iron (*une kage de fort latiz de fuist et barrez, et bien efforcez de ferraments*, (2) and

(1) Sir Francis Vere's *Relation*, p. 418.
(2) Rymer, ii. 1,014.

to place therein Isabella, Countess of Baghaun (Buchan), who had been lately taken prisoner in Scotland with the family of Robert Bruce. In this cage the Countess was to be imprisoned, without permitting her to leave it on any pretence whatever. She was also to be prevented from speaking with any person, Scotch or English, except the keeper of the castle, and an English woman or two of the town of Berwick appointed by him to deliver her food. This unfortunate lady was the wife of John, Earl of Buchan, and imprisoned by Edward for assisting in right of her family, the Earls of Fife, to whom that honour belonged hereditarily, at the coronation of Robert Bruce. She was transferred by Edward II., three years afterwards, to a less rigorous confinement in the Carmelite convent in Berwick, and in 1313 she was handed over to the custody of Henry de Beaumont, by virtue of the King's warrant.(1)

Very different are the instructions for the treatment of Elizabeth, Countess of Carrick, wife of Robert Bruce, and daughter of the Earl of Ulster, when she shall have arrived in the hands of the King, by which we may infer that she had not surrendered herself at the date of this warrant, A.D. 1306. (2) She was to be sent to the King's manor of Brustwick, and to be lodged in the best house there, *à la volonté*, and might have sporting dogs (*levriers*) when she chose to take her pleasure in the preserves, and she might

(1) Rymer.

(2) *Ibid.*—The family of Robert Bruce had been captured at the Castle of Kildrummie, in Aberdeenshire.

have venison and fish for her table. Her establishment was to consist of two women of the country, a "damoisele," and a woman for her chamber of steady age and not gay, of good manners, to wait upon her, and two serving-men (*vadletz*), who were also to be of steady age, one belonging to her father, the Earl of Ulster. She might also have a foot-boy, to remain in her chamber, one who was sober and not riotous, to make her bed, and for other duties in her chamber, and also a house-steward and cook. She was detained a prisoner in England till July, 1314, (1) when Edward II. caused her to be brought before him at York, when she was exchanged for the Earl of Hereford, who had been taken prisoner at Bannockburn in the month previous. She was allowed 20s. a week for her maintenance, as appears by the King's warrant directed to the sheriff of Somerset and Dorset, when she was a prisoner at Shaftesbury. Marie, sister of Bruce, was to be sent to Rokesburgh to be kept in a cage, and Christine, another sister, relict of Christopher Seaton, and Margery, married to Sir Nigel or Niel Campbell, were to be sent to England to be treated in like manner. Marie was released from her cage in the Castle of Roxburgh, and exchanged for Walter Comyn, as early as the year 1310, (2) and Margery was exchanged at the end of four years for nine English prisoners of rank.

(1) Rymer, iii. 204.

(2) "De ducendo Elizabetham uxorem Roberti de Brus, usque ad castrum Roffense," from the custody of the Abbess of Barkyng. (Rymer, A.D. 1314.)

The only reason one can assign why the wife of the great state culprit should be so differently treated to the rest of the family, is probably to be found in the fact of her being the daughter of the Earl of Ulster, whom Edward thought it policy not to offend.

A child, the heir of Mar, was to be sent to the castle of Bristend (Bristol), to be kept in confinement there, but he was excused from wearing irons on account of his tender age.(1) The practice was evidently to fetter prisoners as a matter of course.

Three ecclesiastics, the Abbot of Scone, and the Bishops of St. Andrews and Glasgow, were also among the state prisoners at the same date. They had been taken in complete armour, and were confined in irons in several castles of England, each in a separate cell in the tower, every door leading to which was to be kept locked, and the drawbridge raised. No one was ever to see them besides a valet, a boy, and a chaplain for each, for whose fidelity the sheriff was to be security.(2)

The usual fate attendant upon Welsh prisoners of war in the reigns of John and Henry III. was beheading; but under the rule of Edward I. imprisonment succeeded to this summary process, a very questionable improvement, producing probably only the prolongation of misery. Hence the expenses of maintaining prisoners frequently occur in the Great Roll of the Pipe. There is an allowance of 1d. per

(1) "L'enfant qui est heir de Mar, q'il soit hors de fers tant come il est de si tendre age." (Rymer, ii., p. 1,013.)

(2) *Ibid.*

diem for the support of eight of these unfortunate individuals in the castle of Conway for the term of 1,177 days. Robert le Poer and Peter his brother were allowed 2d. a day for the 1,627 days of their incarceration; and Howel ap Rees was allowed a similar sum for his sustenance during his long confinement of 2,034 days, or more than five years and a half.(1)

These sufferings were trivial in comparison of those of the family of Prince David of Wales. Llewellyn was surprised and dispatched on the spot by Adam Frankton, an English knight, and his head was sent by Edward to London to be fixed on the Tower. His brother David was delivered up by his own countrymen. Edward was exceedingly incensed against him, and with reason, for when an orphan and an exile, the King had been a father and protector to him. David had repaid the bounty of his benefactor with treason and murder.

The fate of the Welsh prince did not long remain in suspense. A Parliament was summoned to assemble at Acton Burnell,(2) in a house belonging to the Chancellor not far from Shrewsbury, and by its order he was arraigned before certain judges, who ordered him "to be drawn to the gallows as a traitor to the King, who had made him a knight; to be hanged as the murderer of the gentlemen taken in the castle of Hawarden; to have his bowels burnt,

(1) *Archæological Journal*, vii. 261.

(2) "In Parliamento quod tenuimus apud Acton Burnell." (Rymer, ii. 502.)

because he had profaned by assassination the solemnity of Christ's passion; and to have his quarters dispersed through the country, because he had in different places compassed the death of his lord the King." This sentence was literally carried into execution.(1) The wretched Prince left behind him a family of sons and daughters. The latter ended their days in the monastery of Sempringham, and his unoffending sons, Llewellyn and Owen, were delivered to the custody of Peter de la Mare, Constable of Bristol Castle; 3d. a day was charged for their maintenance, and 2d. a day each, the wages of three servants who guarded them. Each of the small items of clothing and other necessaries supplied to them are minutely registered, even down to 1s. paid for a pair of shoes. But in the Liberate Roll of the 16th Edward I.—the fifth year of their captivity—the expenses fell to one-half; poor Llewellyn had died on the Feast of St. Gregory the Pope. The solitary brother lived on, and survived his first keeper, and remained a prisoner doubtless till death put an end to his state of misery. It is certain that he languished in his dungeon for one-and-twenty years; probably he may have attempted an escape, as a memorandum on the Clause Rolls (33 Edward I.) orders the Constable of Bristol Castle "to keep Owen, son of David ap Griffin, more secure for the future, and to cause a wooden cage bound with iron to be made, to put him in at night."

Margaret of Anjou, the intrepid wife of the

(1) Lingard, ii., ch. vii, p. 521, edit. 1849.

imbecile Henry VI., survived the ruin of her hopes and the murder of her child, and was kept for five years the prisoner of her conqueror, Edward IV., and was then removed by Louis XI., and died in France about eleven years after the fight at Tewkesbury. She was at first confined in the Tower of London, afterwards at Windsor, and then at Wallingford. All that Edward would allow for her support was a pittance of five marks per week.

Froissart does not give a good account of the humanity of the Spaniards and Germans towards their prisoners of war. He says, "Les Espaignols amenèrent en un châtel tous leurs prisonniers loiés en chaines de fer selon leur usage; ils sont semblables aux Allemands."(1) He imputes to the Germans the employment of cruelty, in order to exact a greater ransom, and he contrasts favourably the conduct of the French, "who," he says, "brought most of their prisoners to Paris, where they kept them at ease without danger, and were received on their parole courteously, without other restraint. They did not place them in prison or in irons, *ainsi que les Allemands font leurs prisonniers, quand ils les tiennent, pour attraire plus grand' finance: maudit soient-ils! ce sont gens sans pitié et sans honneur.*" The English, according to the same chronicler, behaved courteously to their prisoners. After the battle of Poitiers, the knights and esquires who were captured found "*les Anglois et les Gascons moult courtois.*" They were allowed to depart on their promise of paying their ransom by

(1) i. 641.

the ensuing Christmas, or returning into the custody of their captors.

It is very likely that the rigid treatment of prisoners of rank, who could afford to pay, was adopted for the purpose of extorting a higher amount of ransom, nor could it be fairly charged against the Germans alone. The Black Prince bought the two prisoners, the Count d'Eu, Constable of France, and De Tankerville of Sir Thomas de Holland, who had surrendered themselves to him at the siege of Caen, for 20,000 gold rose nobles, probably as a speculation. It was a lucky day for Sir Thomas, who received a grant from the King of 80,000 florins for the capture. [1] A writ of the King in the following year confirms this view of the matter. He therein directs that the Lord de Tankerville and the Earl of Eu should be kept more strictly than ever in a strong place well walled in, and that they should have no communication whatever with any one. [2] This harshness appears to have produced the desired effect, for in 1350 the King granted his passport for fifteen persons, servants to the Count d'Eu, to go to France

(1) Rymer, *sub anno* 1346.

(2) Rex, &c. A.D. 1347. Claus. 21. Edw. III. Ob aliquas causas undè noviter sumus moti, mandamus, districtiùs quo poterimus injungentes, quatinùs Dominus de Tankervel, qui nuper in partibus Franciæ de guerrâ captus fuit, et in custodiâ vestrâ, ut accepimus jam existit, sub securâ et artâ custodiâ, in aliquo loco forti et bene murato, poni et teneri faciatis, absque eo quòd colloquium cum aliquo de cætero habeat, aut quovis modo communicat, vivâ voce aut literatoriè, clam vel palam, sive mandato nostro speciali, servitores suos et secum commorantes, extra locum prædictum exire, modo aliquo, non sinistis. (A similar writ was directed to De Holland, for the Count d'Eu.)

and to return to England (in war or peace) for the purpose of procuring money for his ransom, and other business.(1)

By the feudal system, all the tenants, vassals of a lord, were obliged to contribute towards his ransom, if taken prisoner of war: thus Richard I. levied an aid for the ransom of his person when he was captured and imprisoned on his return from the Holy Land. The tenants *in capite*, both barons and knights, paid it under the name of scutage, xx^s. per scutum for each knight's fee; at the same time a payment was also made for the same purpose by the name of hidage.(2)

Inferior lords had the same aids as a king. John de Brittany, Earl of Richmond, being taken prisoner by the Scots, whilst he was in the King's service in the field, had the King's letters directed to all his tenants, requiring them to pay reasonable aid—there called a subsidy—for his ransom, according to their ability, to which they were bound as well by equity as by the duty of their fealty.

The expense of keeping the King's prisoners was advanced by the sheriffs of counties wherein they were confined, and charged in their accounts at the exchequer. Many of these writs occur in Rymer. Possibly these expenses were repaid by the prisoners with their ransom.

An account of the charges of certain prisoners in the Tower, *temp.* Henry VIII., is given in *Archæologia*, xviii. 294.

(1) Rymer, 24 Edw. III. (2) *Vide* Madox, *Exchequer*.

CHAPTER XII.

DEGENERACY OF MILITARY SCIENCE—TACTICS AND STRATEGY—WAR-CRIES—PASS-WORDS—BATTLE ARRAY—KNIGHTS DISMOUNTED—BATTLE OF FALKIRK—SIEGE OF CARLAVEROCK—BANNOCKBURN—CRECY—WEDGE-LIKE FORMATIONS—POITIERS—AGINCOURT—ELIZABETH'S INFANTRY—PRINCE MAURICE—GUSTAVUS ADOLPHUS—ENGLISH REGIMENTS.

Degeneracy of Military Art.

THE art of war had greatly degenerated during the Middle Ages. To the wise practice of the Greeks and Romans, who submitted the guidance of their largest armies to the command of one man, had succeeded a rude system of warfare, better suited to feudal anarchy. The irregular levies hurried together for the occasion, naturally constituted an army without order and without science, and the issue of battles did not depend so much upon the skill of the general, as upon accident, or the courage, and more especially the physical vigour of the combatants. A battle was, in fact, a duel, on a large scale, in which manual dexterity and muscular strength decided the victory. It was a hand-to-hand combat, each man-at-arms singling out his opponent in order to unhorse him, or what was often of greater consequence, to make him prisoner, and then extort a heavy ransom; for a knight alive was valuable, but dead, not worth much, except on account of his armour, and there are instances of knights being slain for the sake of it. (1) A common

(1) "La furent-ils pris, et retenu par force, et un écuyer jeune et

man who had no money to give, when assailed, was, if possible, immediately dispatched. [1] To carry on the similitude to the modern duel, it was in conformity with chivalric usage for the two parties to agree upon the place where an engagement should take place, and thus give rendezvous on the battle-field. Philippe de Valois, for instance, sent word by a high officer of state to Edward III., that he would give him battle on the next Thursday, in a place unobstructed by wood, marsh, or water. [2] Edward, again, in his Scotch campaign (1327), sent a polite proposal to the enemy, that one army should be allowed to cross the river (that separated them), and should have room and time allowed for forming in battle array. The reply was not so courteous. [3] Again, in 1347, King Philip arrived with a great army to raise the siege of Calais, but he found the little English army strongly entrenched, so he sent Messire Eustache de Ribeumont to inform the English Sovereign, that he (the King of France) had come to fight him, but that he did not

frisque de Limousin, depuis qu'il fut créanté prisonnier fut-il occis, pour la convoitise de ses belles armures." (Froissart, i. 95.)

(1) Là fut *pris le capitaine* et *tous ceux d'honneur* qui devers lui etoient, et le *demeurant* (the remnant—*i.e.*, the commonalty) *mort*." (Froissart, i. 211.)—"Quand les anglois en furent au dessus ils *prirent* les deux chevaliers qui moult vaillamment s'etoient défendus, et aussi aucuns gentils hommes, écuyers, et le demeurant *ils mirent tout à l'epée*." (*Ibid.*, p. 422.)

(2) "Le lundi matin si viendrent lettres à Mons. Hughe Tenene, de part le meistre d'Arblastiers de Fraunce fesauntz mention q'il voleit dire à roy d'Engleterre de part le roy de Fraunce q'il voilleit prendre place qu'elle ne fust afforcie par boys, mareis, ne par eawe; et q'il luy durroit bataille de deinz le jeofdy proschein suaunt." (Letter of Ed. III., in Robert of Avesbury, *Hist.*, Hearne, edit. 1720.)

(3) See before, i. 297.

see how he could get at him, and therefore begged the King to appoint a place where they might meet and fight. Edward replied, politely declining to make the appointment, that he had been there nearly a year at considerable personal inconvenience, and the King of France might have come and sought him before; and he recommended, if the King could not now get at him there, that he should look elsewhere and find the way. (1)

The elements often exercised an influence on the success of the day: the winds raising clouds of dust; the sun shining in the eyes of those who faced it; or the rain relaxing the bow-strings, as at Crecy, or rendering the ground impassable for heavy cavalry. (2)

Order of Battle.

Armies in the field were ordinarily drawn up in three grand divisions—the van (*avant*), battaile or centre, and rear (*arrière*). About the sixteenth century, they were generally termed vauntguard, battaille, and rearward. (3) We find instances of a triple distribution as early as the battle of Hastings, when Duke William divided his army into three corps: "Pedites in fronte locavit, sagittis armatos et balistis, item pedites in ordine secundo firmiores et loricatos,

(1) "Si il ni ses gens, ne peuvent par là passer, que ils voisent autour pour querir la voie." (Froissart, i. 266.)

(2) "Et tiel haste avoit-il pour prendre plus forte place que mil chevalers à une foitz fusient enfoundrées en la marrés à son passage." (Letter of Edward III., in Robert of Avesbury, p. 46.)

(3) The Romans formed their order of battle in three lines, composed of—1. *Hastati*, men in the flower of life, armed with long spears. 2. *Principes*, men of maturer age, who formed the *chief strength* of the army. 3. *Triarii*, the oldest of all; veterans, without so much dash, but whose *staying* qualities might be relied upon. The cavalry was stationed on the wings.

ultimo turmas equitum." (W. of Poictou, *Hist. Norm. Scrip.*) So also Wace :—

> " Normants ount treiz compagnies,
> Por assailer en treiz parties."—*Roman de Rou.*

As these battels or divisions were not always engaged, the post of honour—eagerly sought for—was the command of the leading one. Commanders of armies often found it difficult to induce distinguished officers to accept the command of the rear or reserve. At the battle of Auray, in 1364, Sir Hugh Calverley considered himself aggrieved by being appointed by Sir John Chandos to command the rear; but, on being shown the reasonableness of it, he acquiesced.(1) The van was not, however, always in advance, nor the rear always drawn up behind. Calverley, in the above instance, is described as having entered the field by the rear, but his division, although not engaged (except in recovering and bringing back to their own ranks those who were thrown into confusion), was drawn up in rear of the others as a wing. At Agincourt the van was posted as a wing to the right, and the rear as a wing to the left.(2) The English and French at Crecy, and the French at Poitiers and Agincourt, were drawn up in three divisions, in rear of each other, and this faulty formation was the cause of defeat in those battles; for when the first line was disordered, it

(1) " Cette bataille qui s'appeloit arrière-garde se traist sur les champs arrière des autres sur aile, et se mit en ordonnance." (Froissart, i. 492.)

(2) *Vide* Nicolas's *Agincourt*, p. 114.

recoiled on the next, and the tactics and discipline in those days were insufficient to obviate disaster, consequently the whole army was thrown into confusion. The disposition of the English divisions at Auray (just mentioned) gives one the idea of an *échelon* arrangement; and at Agincourt, the English wings disposed to the right and to the left, were doubtless so placed to avoid confusion.

Again, armies were sometimes formed into four or more divisions; sometimes, again, they were massed into one,(1) although, according to an authority cited in *Études sur l'Artillerie*, i. 12, the French, after the defeat at Courtrai, in 1302, never attempted to engage the whole of their force at once. At Mont-Cassel, in 1328, the French army, consisting of about 40,000 men, were divided into ten divisions.

Tactics.

It may be inferred that the tactics of those days were of the simplest description, and manœuvres were comparatively unknown, unless under that term are comprised *feints* and *ruses*, and they formed a considerable portion of the plan of military operations. "Stratagems," says Sutcliffe, a military writer of the sixteenth century, "I call those devices whereby the general doth either hurt or discourage the enemy, or help and encourage his own men: so called because they proceed from the general's head, and policy, whom the Greeks call *σράτηγον*. Ambushes the

(1) "Quand on a moins de gens des communes, mais plus du bonnes gens d'armes, que toute l'assemble soit mise en une seule bataille, sans autres avant-garde ni arrière-garde fors les esles devant." (Christine de Pisan, *Livre des Faitz d'Armes*, ch. xxiii.)

Italians call *emboscate*, for that in woods for the most part such traps are laid. The Romans do better term them *insidias*, and the Greeks ἐνέδρας." (p. 192.) The Normans feigned flight at the battle of Hastings, to induce the English to open their ranks, and leave their strong position. This stratagem was successfully employed in the Wars of the Roses, at the battle of Blore Heath (county of Stafford), in 1459. The Earl of Salisbury feigned a retreat, and allured Lord Audley to follow him with precipitation. When the van of the royal army had passed the brook, Salisbury suddenly faced about, and partly by surprise, and partly by division of the enemy's force, put him to the rout. (1) The detaching a party to lie in ambush, or to make a *détour* and so surprise the enemy, was often a successful device ; and to take up a position where the sun should shine in the face of the enemy, was always considered an important measure. Of strategy, (2) or of any fixed plan of operations, the commanders were generally in profound ignorance. An English commander, Sir Francis Vere, did not disdain to avail himself of *insidias* so late as the end of the sixteenth century. The relation is in his own words, *anno* 1591 :—

"I chose a great number of the lustie and hardie young souldiers, the most of which I apparelled like

(1) Holinshed, p. 649.—Grafton, p. 936.

(2) Tactics (from τάσσω, *to arrange*) is the branch of military science which relates to the practical arrangement of troops *in* battle. Strategy (from στρατὸς, *an army*, and ἄγω, *to lead*) is the art of conducting them *before* battle, with a view to the accomplishment of the object of the campaign.

the country women of these parts, the rest like the men, and gave to some baskets, to others packes, and such burthens as the people usuallye carry to the marketts, and pistolls and short swords under their garments, willing them by break of day to be at the ferrie at Zutphen, which is just against the fort. I willed them to be 2 and 3 in a company, as if they had stayed for the passage-boat of the Towne, and willed them to seate and rest themselves in the mean-tyme, as near the porte of the Forte as they could for avoiding suspition, and to seize upon the same as soon as it was opened. It took so good effect, that they possessed the entrance of the Fort, and held the same, till an officer with 200 souldiers (who has layd in a covert not farre off) came to their seconds, and so became fullie masters of the place." (1)

Ignorance of Position.

In 1356, King John of France, wishing to give battle to the Prince of Wales, near Poitiers, crossed the river at Chavigny, believing that the English were just *in advance* of him, but he found to his surprise that they were *behind*. On the other hand, the Prince was ignorant of the position of the French. (2)

War Cries.

It seems the natural impulse of men rushing into action to raise loud shouts, with the object of terrifying the enemy, as well as of sustaining their own spirits. Each nation had its peculiarity in this respect. They became subsequently defined as war-cries, which the troops were enjoined to raise, and they were useful

(1) MS. fol., King's, B. Mus., 103, f. 11. "Instructions and Regulations," &c.

(2) Froissart, i. 340.

for rallying the combatants. In an encounter near Vilhalpandos, in Portugal, between the French and English, the latter gathered themselves together, *directed by their war-cries*, and the French on their side did likewise.(1) The national war-cry of England was "Saint George." Walsingham relates that Edward III., in a sharp affair outside Calais, called out "Ha, Saint Edward! Ha, Saint George!" which being heard, procured him immediate assistance. (2) That of France was "Montjoye Saint Denis;" (3) of Castile, "Saint James;" of Brittany, "Saint Malo," or "Saint Yves;" and so forth. "Albanach! Albanach!" (4) was the ancient slogan of the Scottish warriors, and "Farrah! Farrah!" that of the Irish; (5) the meaning of which is open to conjecture.

At Crecy, the Genoëse yelled in a most frightful manner to intimidate the English; (6) and at Agincourt, the English greatly astonished the French by their shouting. (7)

There were also personal or family cries of dis-

(1) Froissart, ii. 631.

(2) Rex Edwardus evaginato gladio, Sanctum Edwardum et Sanctum Georgium invocavit . . . . quibus auditis et visis, milites confestim Angliæ confluebant ad regem suum." (p. 168.)

(3) Montjoie was the feudal castle of the Abbey of St. Denis, which is assigned as the reason why the war-cry of the King of France, bearer of the oriflamme, was "Montjoie Saint-Denis." (N. to *Chron. de Saint-Denis*, by Paulin Paris, v. 455.)—"At present," says Grose, ii. 10, "the French, in assaults of the covered way, or any other attack, cry, *Tue, tue*."

(4) *Scotland under her Early Kings*, i. 204, by E. W. Robertson, Edinburgh, 1862.

(5) *Hist. of Ireland*, ii. 162.

(6) Froissart, i. 237.

(7) Monstrelet, liv. i., ch. cliv.

tinguished leaders, as "Lancastre au Comte Derby," of the Earl of Derby; and "Douglas, Saint-Giles," of the Earl of Douglas. The Irish ones, on the authority of Sir James Ware, chiefly terminated in the word *aboe*, which is said to come from an obsolete Irish word signifying cause or business; thus "Butler-aboe" was the cry appropriated to the house of Ormond. O'Neal's cry was "Lomb-deary-aboe," *i.e.*, "the cause of the red hand," which was his crest or cognisance. From the old *aboe*, *aboo*, or *ubooboo*, has evidently sprung the Irish, and now equally English *hubbub*, the meaning of which every one knows. In order to strike terror into the enemy, and to impress him with the belief that he was about to be assailed by superior forces, the combatants were sometimes instructed to raise the cry of leaders who were not present with the army. The French adopted this *ruse* before the Flemings in 1382, (1) and it is stated that the Earl of Salisbury performed such heroic acts in France, that his name became a terror to his enemies. So much so, that a small English garrison, being hard pressed by a French besieging force, sallied forth, crying "St. George! A Salisbury!" which so alarmed the enemy, thinking that he had come to the rescue, that they threw down their arms and fled. (Baker's *Chron.*, p. 181., an. 1424.)

The infernal jargon raised by the Scots to frighten Edward III. and his army has already been mentioned, as well as the midnight attack on the English

(1) Froissart, ii. 337.

camp, which the assailants fell upon with the cry of "Douglas! Douglas!"

The Irish were not behindhand in this respect, as we learn from the pen of a contemporary, the French gentleman who accompanied Richard II. in his expedition to Ireland in 1399, and who relates the incidents of the campaign in an elaborate verse. (1) Of the shouts raised in battle, he writes:—

> "La menoient tel criere et tel bruit
> Qu' à mon advis
> On les eust bien dune grant lieue oys
> A pou de dueil." (p. 301.)

Pass-word.

The English appear to have been the first of modern nations to establish a pass-word, by which at night they might recognise each other. (2) A pass-word, as a sign of mutual recognition, is of great antiquity. "The sword of the Lord and of Gideon," appears as such in Judges vii. 18; and in the revolt of the tribes from Rehoboam, it would appear that the watchword or war-cry was, "To your tents, O Israel." (1 Kings xii. 16.)

The din of artillery and musketry would now be sufficient of themselves to drown such outbreaks, even if silence in the ranks were not enjoined by the exaction of modern discipline. A military writer, however, of the seventeenth century, inserts the

(1) See before, i. 288.

(2) "Thomas Dagorn ordonna que ses soldats diroient l'un à l'autre une parole bien bas, laquelle parole je n'ai pu savoire. Les nôtres s'entreteniaent pour ce qu'ils ne s'entre cognaissoient tant faisoit obscur, mais les ennemis si avoient un signe secret comme devant est dit si s'entregardoient." (*Chron. de Saint-Denys*, v. 474, *anno* 1347.)

observance of war-cries among the code of military laws:—

"Item, that all souldiers entering into battaile, assault, skirmish, or other action of arms, shall have for their common crie and word '*St. George! St. George!* forward or upon them, *St. George!*' whereby the souldier is much comforted, and the enemie dismaide, by calling to mind the auncient valour of England, which with that name hath been so often victorious; therefore he that shall maliciously omit it, shall be severely punished for his obstinacie."(1)

Grose, writing at the end of the last century(2), says, "Although the cry of 'St. George!' has been long disused, war-cries are still kept up among our sailors, who constantly accompany their first broadside with three huzzas, styled by them three cheers; several of our modern officers, among them General Wolfe, recommend, on charging the enemy with fixed bayonets, to give a loud, warlike shout." (ii. 10.)

Fire-arms have necessarily made vast changes in every feature of military art, although the leading principles of war continue the same. A steady, unbroken line pressing on the enemy must drive him out of the field, whether effected by lances or bayonets. The success of military operations has depended in all times upon the nature of the country, and he is the best strategist who selects the strongest positions. In the first three centuries after the Conquest, the order of battle was of the simplest

(1) *The Art of War*, by Edward Davies, 1619.
(2) He died at Dublin of apoplexy, in 1791.

character. The engines of war—catapults, if there were any, casting forth stones or arrows by centrifugal force—were dragged to the front, to defend the flanks. The archers formed a front line, and were placed in very open order, so that they might have full scope for their business. In rear of them were the divisions of men-at-arms in dense masses. Opposing armies in the days of archery were drawn up in closer contact with each other than they were when the science of projectiles was improved. The utmost range of the long-bow was 600 yards. The ranks of the men-at-arms were closely ordered. At Courtray the French front occupied only a space of two bow-shots, and a short stone's throw in depth.

> " Lors s'estendant grant aleure
> En tel guise que leur rendure
> D'espès *le giet d'une perrete*
> La longueur droiz et qu'on li mète
> Tient bien *deux archies entières.*
>
> *Guiart*, 2e part, *anno* 1303.

At Bouvines, the lines of the two armies extended only over 1,040 paces, although the French army is said to have amounted to 100,000 men.(1)

The usual plan adopted was—the archers commenced the attack, and did their best to create confusion in the enemy's ranks, by wounding the horses of the men-at-arms.(2) Having expended their "artillery," they took to their side-arms—an axe, or mallet, or sword. But as the archers were but

(1) See *Études sur l'Artillerie*, i. 12.

(2) "Les dits archiers navièrent moult de leurs chevaux à Crécy." (*Grandes Chroniques*, v. 161.)

irregular skirmishers, unprotected by armour, they required, when it came to close fighting, the assistance of more solid and compact bodies, so they made way for the advance of the men-at-arms, or mixed themselves up in their ranks, and fought as best they could. And here lay an essential difference in the tactics of the French and English. The French men-at-arms fought on horseback, at least up to the battle of Crecy; the English dismounted, and fought on foot. The advantage obtained by the latter was so great that, after that defeat, the French nobility found it imperative to follow the example. At Poitiers all the French, except 300 men-at-arms, fought on foot like the English, their horses being kept near enough for them to mount upon in case of necessity. The lesson was afterwards taught to the Spaniards. At Najara, in 1367, the Spanish men-at-arms fought on horseback, the English all on foot. (1) But at the battle of Monteil, in 1369, the Spaniards, including Henry de Transtamare himself, all dismounted and fought on foot. (2) The innovation was said to be carried to Italy by Sir John Hawkwood. (3) This was an epoch in military history, and led to one of the great reforms of the age—the appreciation of the foot soldier, and subsequently to the organisation of regular infantry. Its moral effect was greater still, for it was a knock-down blow at chivalry and feudal systems, by diminishing the efficacy of the mounted man.

(1) *Chron. de Duguesclin*, chron. xxxviii. (*Pantheon Littéraire*.)

(2) *Ibid.*, ch. cxix. (3) Matteo Villani and Sismondi, vi. 429.

As early as the Crusaders there are instances, although rare, of knights dismounting and contending on foot. The Emperor Conrad's cavalry, in the second crusade, are said, by William of Tyre, to have dismounted on the emergency and fought on foot.(1) The Princess Anna Comnena says that the French men-at-arms, so terrible on horseback, were little to be dreaded on foot.(2) The practice was more ancient still: we read of it in the classic days. At Cannæ, for instance, the Roman cavalry dismounted and fought on foot.(3)

This dismounting necessitated an alteration in the equipment of the men-at-arms. Their long, stately lances, of sixteen or eighteen feet, were ordered to be reduced to five feet, to render them more handy and stiffer for close fighting.(4) Another requisite humiliation for the equestrian order was that they were ordered in the field to take off their spurs, which would prove an impediment in their marching.(5)

The suppression of the long lance, and the consequent proximity of combat, induced the adoption of a supplementary weapon, and the axe came greatly into vogue. The military chronicles from the latter

(1) "De equis descendentes, et facti pedites, *sicut mos est Teutonicis* in summis necessitatibus bellica tractare negotia." (lxvii., c. 4.)

(2) *Alexiad*, l. v., p. 140. (Paris, 1651.)

(3) See Polybius, iii. 115; and xxii. 47.—Also Procopius, *De Bello Persico*, l. i., c. xviii.

(4) Monstrelet, l. i., ch. cliv.—Saint-Remy, ch. lxii.

(5) At Poitiers, "que tous ceux qui lances avoient les retaillassent aux volume de cinq pieds, parquoi, on se pût mieux aider, et que tous aussi ôtassent leurs éperons." (Froissart, i. 342.)

half of the fourteenth century attest the effect produced by this ancient and terrible implement.

At Auray, in 1364, "chacun homme d'armes portoit son glaive droit devant lui, retaillé à la mesure de cinq pieds, et une hache forte, dure et bien acérée à petit manche, à son côté ou sur son col."(1)

Men encased in armour from head to foot could not possibly march on foot for any distance—in fact, it had to be thrown away sometimes, as has already been mentioned (i. 208); and it is recorded of the Burgundian men-at-arms, when dismounted upon one occasion, that they were so oppressed by the weight of their armour and the heat, that they had to be supported to prevent their falling.(2) It is related of the French and English armies marching to the encounter at Verneuil, that the latter marched slowly and wisely without heating themselves, but the latter too hastily, so that they were out of breath before they joined issue.(3) The proper course was, therefore, to ride to the scene of action, and dismount when the fighting was imminent. At Baugy, in 1421, the English commenced the action before their archers had come up, and were defeated;(4) and at Potay, in 1429, the English were attacked before all their men-at-arms had time to alight.(5) The English men-at-arms invariably fought on foot, but the pre-

(1) *Ibid.*, i. 494.

(2) "Voulez-vous mettre ceste noblesse en danger qui nous suit à pié à pesantes armes, et par telle chaleur qu'il faut les plusieurs porter et soutenir par les bras?" (Olivier de la Marche, p. 464.)

(3) *Chroniques de la Pucelle*, p. 412. (*Panthéon Litt.*, *année* 1424.)

(4) St. Remy, ch. 110.—Monstrelet, ch. 239.—Hall. fol. 76.

(5) Monstrelet, l. ii., ch. lxi.

ference of those of other countries was for remaining on horseback, and the order for dismounting had to be enforced by the threat of death as a punishment for the disobedience. At the battle of Crevant, in 1423, in addition to this order, the horses were sent half a league to the rear, and any found within the distance were to be confiscated.(1) A small number of men-at-arms were, however, generally kept mounted during an engagement, in order that advantage might be taken by a sudden dash of any confusion in the enemy's ranks. Edward III. did so at Buironfosse.(2) The horses in charge of the pages, placed at some distance in the rear, formed a guard against surprise in that quarter, but generally the baggage-carts, which were wonderfully numerous, were drawn round the rear as a defence.(3)

Battle of Falkirk

The rectangular formation was not always adopted. At the battle of Falkirk (A.D. 1298), Wallace formed his pikemen—the flower of his army—in four circular bodies. (4) The object of this formation was—like the modern squares of infantry—to resist the charge of cavalry, which was numerous on the English side. The spaces between each of these circles were filled

(1) *Ibid.*, ch. x.

(2) Froissart, i. 82. "Une autre bataille sur aile . . . . et se tenoient cils à cheval pour *reconforter les batailles* qui brandeleroient" —*i.e.*, to reinforce the divisions. In the Bayeaux tapestry, Odo is represented as urging on a body of troops with the explanation, "Hic Odo *confortat* pueros"—*i.e.*, Here Odo gives renewed energy to the young men.

(3) Froissart, i. 82.

(4) "Statuerint enim Scoti omnem plebem suam per turmas quatuor, in modo circulorum rotundorum." (Hemingford, p. 176.)

with archers. Their front was defended by palisades, the cavalry was in rear, and between them and the English there was a morass. The English who had passed the night on the ground, at daylight discovered the enemy in battle array. Edward formed his order of battle in three divisions. The first, consisting of cavalry, under the command of the Earl Marshal, got entangled in the swampy ground. The second, under the Bishop of Durham, made a *détour* and avoided the swamp, and came upon the Scotch horse, which they charged and broke, but they could make no impression on the pikemen. The King of England then advanced his archers, who were just acquiring the reputation of surpassing those of other nations, and supported them with his military engines. A breach was soon made in each circle, and the men-at-arms dashed in. The whole Scottish army was beaten off the field. Walsingham (p. 76) estimates the Scots' loss at between 50,000 and 60,000, and Trivet (p. 313) at more than 20,000; Matthew of Westminster (p. 431), at 200 horse and 40,000 foot, besides those who were drowned; which proves how little reliance can be placed in numbers, even on the authority of contemporary writers.

The great object of Edward's ambition was to establish his dominion in Scotland, and nothing could exceed the pertinacity with which he pursued it, except the obstinacy with which it was met. His primary political design had been the union of the two kingdoms, to have been effected by a projected marriage between his son Edward and Margaret,

daughter of Eric, King of Norway, and grand-daughter of Alexander III., King of Scotland, whose wife was Margaret, eldest daughter of Henry III., sister to Edward I. Alexander having been killed by a fall from his horse in 1290, his grand-daughter Margaret was acknowledged heiress of the crown of Scotland. King Edward, with the consent of the guardians of that kingdom, betrothed his son, Prince Edward, to the Princess Margaret, by an instrument, dated August, 1290; (1) and Anthony Bek, Bishop of Durham, was constituted Lieutenant of the Kingdom in the names of the Prince and Princess. That intention was frustrated by the untimely death of the young Princess on her passage from Norway. Edward, taking advantage of the intense weakness of Scotland, occasioned by divisions with respect to the succession to the throne, resolved to make a complete conquest of that kingdom by force of arms, and annex it to the crown of England. These designs were not permitted to take effect, and horrible scenes of bloodshed, rapine, and devastation continued for many ages.

In A.D. 1300, Edward finding himself at peace with other powers, summoned his forces to meet him on the borders of Scotland, and set out from London in April, accompanied by his new Queen and his eldest son Edward; and taking his route through Lincolnshire, he crossed the Humber into Yorkshire; and having left the Queen at Brotherton, where she was delivered of a son, proceeded to Carlisle, and

(1) Rymer, vol. ii., p. 482.

entered the western marches of Scotland, at the head of a numerous and well-appointed army, in three divisions, consisting of the flower of the English nobility. With this army he traversed the southern counties of Scotland, and having subdued the castles of Jedburgh, Dumfries, Roxburgh, and many more, he sat down before the castle of Carlaverock, situated at the mouth of the Nith in Solway Frith, a place which, according to Camden (*Brit.*, p. 1,197), had till then been deemed impregnable.

This siege formed one of the principal events of that campaign; the preparations for carrying it on were extensive; military engines of unusual magnitude were constructed and transported thither, and every exertion was made to reduce the castle. At length the attempt was crowned with success, and the garrison was forced to surrender, and submit to the King's mercy. (1) Edward not finding provisions in that ravaged country sufficient for the supply of so

(1) "The Scots re-possessed themselves of this castle; and its gallant owner, Sir Eustace Maxwell, supported a long siege again, and obliged the assailants to retire. He then dismantled it, and in return for this sacrifice the pecuniary acknowledgment due to the Crown for this castle and estate was remitted to him and his heirs. It was afterwards re-built, or rather re-fortified; but in 1355 it was taken by Roger Kirkpatrick, and razed." (Major, *De Gestis Scotorum*, p. 217.)—It was ruined by the Earl of Surrey, in 1570 (Camden's *An.*, p. 217), and it remained "a weak house of the family of Maxwell," its possessor having been created, in 1424, Lord Maxwell of Caerlaverok, and his lineal descendant, Robert, the ninth lord, was created Earl of Nithisdale in 1620. He restored the castle in 1638; and it was surrendered on terms to Cromwell; at which time, in a receipt given for the furniture, eighty beds are mentioned. A description of its actual state in 1772 is given in Pennant's *Tour*, ii. 112. (Note to *Observations on the Wardrobe of King Edward I.*)

large an army, consented to grant the Scots a truce.

After the terrible examples he had made of Wallace and other champions of national independence, Edward probably concluded that every chance of insurrection was at an end. It had taken him thirteen years to forge the fetters for Scotland, but in less than six months she was again free. Robert Bruce, by the murder of Comyn, had assumed the title of King, and was crowned without opposition at Scone. He, however, was shortly driven to last extremities, and obliged to fly to Ireland to save his life, yet before the conclusion of the same year, 1306, he was again in arms and formidable; so that Edward, although exhausted by a long and wasting malady, had again to take the field, and put himself at the head of an army with the design of crushing him utterly. By short marches he reached Burgh-upon-Sands, a petty village of Cumberland, on the shores of Solway Firth, and there on the 7th July, 1307, he expired, in sight of the devoted country. (1)

His dying injunctions to his son were to prosecute the war against Scotland, to carry his dead bones along with the army, (2) and never to recall

(1) Froissart (i. 53) erroneously makes the death occur at Berwick.

(2) "He called his eldest son, and made him swear, in the presence of all his barons, by the saints, that as soon as he should be dead he would have his body boiled in a large caldron until the flesh should be separated from the bones; that he would have the flesh buried and the bones preserved; and that every time the Scots should rebel against him, he would summon his people, and carry against them the bones of his father; for he believed most firmly that, as long as

Gaveston. [1] Edward II. disobeyed them all. In August he repaired to Scotland, and received the homage of the Scottish barons at Dumfries, and at the head of a numerous army advanced in pursuit of Bruce. But war had few attractions for him, and under pretence of making preparations for his marriage and coronation, he hastily returned to England. He caused his father's remains to be interred in Westminster Abbey, and immediately recalled his favourite, Piers de Gaveston, from banishment. So far as this individual was concerned, the sequel proved the policy of the dying King's advice.

In 1314, the terror of the English power being abated by the feeble conduct of the young king, Robert Bruce actively availed himself of the occasion, and a rapid train of success had made him master of almost all Scotland. Stirling Castle continued to hold out. It was strictly blockaded by a division of the Scottish army under "the Bruce's" brother Edward, who concluded a treaty with Sir Philip Mowbray, the governor, that if he were not relieved before St. John the Baptist's day, the castle should be surrendered. Robert Bruce blamed his brother for the impolicy of a treaty which gave time for the King of England to assemble his forces, and to march to the relief of the castle. The consequence was that each

his bones should be carried against the Scots, those Scots would never be victorious." (Froissart, i. 25 [Johnes].—Also Walsingham, *sub anno.*)

(1) *Sic* in Rymer, ii., pt. i., *anno* 1307, August.—The magnificence of the grants bestowed upon him by the King is prodigious. No wonder he became an object of deadly jealousy.

kingdom mustered its strength for the inevitable conflict.

Edward II. forthwith issued a mandate to the sheriff of York and others, to furnish infantry only for the expedition, and the reason of this is stated in the preamble :—" We have understood that our Scottish enemies and rebels are endeavouring to collect as strong a force as possible of infantry, in strong and marshy grounds, where the approach of cavalry would be difficult, between us and the castle of Stirling. Therefore to remove our said enemies and rebels from the several places as above-mentioned, it is necessary for us to have a strong force of infantry fit for arms."(1) Wherefore the sheriff is commanded to equip and send forth a body of 4,000 infantry, to be assembled at Werk, upon the 10th day of June next. He also ordered levies of foot-soldiers in Wales, because the King required men accustomed to fight in forests and on mountains, and able to drive the enemy from strong and rugged places, difficult for cavalry to approach. He also requested aid from " his beloved," the chiefs of the Irish septs, with all the force they could muster ; but they do not appear to have arrived. (2)

The number of the foot-soldiers furnished by the sheriffs of the specified counties amounted to 14,500

(1) Rymer, iii. 463.

(2) The request is headed "Rex succursum rogat ducum Hybernicorum," and is addressed to "dilecto sibi Eth' Okonhor, duci Hybernicorum Conactiæ." It is plain, from the difference between this letter and the usual summons to vassals, that none of the Irish chieftains had sworn fealty to him. He does not give the title of king to any, but that of *dux* to twenty-six. Their names are printed in Rymer, iii. 476, *anno* 1307.

men; 7,040 were required from Wales. The cavalry might not have been so numerous as usual, and some of the great lords had been excused attendance by royal writs (Rymer, iii. 476), so that probably the strength of the army did not exceed 30,000 or 40,000 fighting men. The numbers, however, vary, according to the sentiments of the writers. (See the account of the battle in Fordun, xii. 21.)

Civil dissensions delayed the departure of the King and the army, and it was only a week before the day fixed for the surrender of Stirling, that Edward marched from Berwick; and though the army was encumbered by a long train of provision-wagons and military engines, it reached the neighbourhood on the eve of the festival. On the previous day King Robert Bruce had selected the field of action, and took post there with his army, consisting of about 30,000 disciplined men, and about half the number of disorderly attendants upon the camp. The ground was called the New Park of Stirling; it was partly open, and partly broken by copses of wood and marshy ground. He divided his regular forces into four divisions. Three of these, drawn up at intervals, formed the front; the fourth division was the reserve in the rear. The line extended from a north-easterly direction from the brook of Bannock, which was so rugged and broken as to cover the right flank effectually to the village of Saint Ninian's, probably in the line of the present road from Stirling to Kilsyth. Edward Bruce commanded the right wing, which was strengthened by a strong body of cavalry under Keith,

the Mareschal of Scotland, to whom was committed the important charge of attacking the English archers: Douglas, and the young Steward of Scotland led the central wing; and Thomas Randolph, Earl of Moray, the left wing. The King himself commanded the fourth division, which lay in reserve in rear of the others. The royal standard was pitched, according to tradition, in a stone, having a round hole for its reception, and thence called the Bore-stone. It is still shown on the top of a small eminence, called Brock's-brae, to the south-west of St. Ninian's. (1) His main body thus disposed, King Robert sent the followers of the camp, 15,000 and upwards in number, to the eminence in rear of his army, called, from the circumstance, *the Gillies' hill.*

The military advantages of this position were obvious. The Scottish left flank, protected by the brook of Bannock, could not be turned; or, if that attempt were made, a movement by the reserve might have covered it. Again, the English could not pass the Scottish army, and move towards Stirling, without exposing their flank to be attacked on the march.

The ground in front of Bruce's position, being part of a park or chase, was considerably interrupted with trees; and an extensive marsh, still visible, in some places rendered it inaccessible, and in all of difficult approach. More to the northward, where the natural impediments were fewer, Bruce fortified his position against cavalry, by digging a number of

(1) The account of the battle is taken from Sir Walter Scott's careful notes to *The Lord of the Isles.*

pits so close together, says Barbour, as to resemble the cells in a honey-comb. They were a foot in breadth, and between two and three feet deep, many rows of them being one behind the other. They were slightly covered with brushwood and green sods, so as not to be obvious to an impetuous enemy.(1)

All the Scottish army were on foot, excepting a select body of cavalry stationed with Edward Bruce on the right wing, under the immediate command of Sir Robert Keith, the Marshal of Scotland, who were destined for the important service of charging and dispersing the English archers.

Thus judiciously posted, in a situation fortified both by art and nature, Bruce awaited the attack of the English.

The English vanguard, commanded by the Earls of Gloucester and Hereford, came in sight of the Scottish army upon the evening of the 23rd of June. Bruce was then riding upon a little palfrey, in front of his foremost line, putting his host in order. It was then that a gallant English knight, Sir Henry de Bohun, dashed forward and offered single combat

(1) "And in ane plane feld by the way
Quhar he thockt ned behafit away
The Englishmen, gif that tha wold
Thron the Park to the castell hald,
He girt men mony pottis ma,
Of ane foot bred round, and all tha
War dep up till ane manis kne,
Sa thik that tha micht liknit be
Till ane wax-cayme that beis mais."
(p. 263, Spalding Club edit.)

to the Scottish King, in accordance with chivalric usage.

> "And quhen Glosyster and Herfurd war
> With thair bataill approchand ner,
> Befor thaim all thar came rydand,
> With helm on heid, and sper in hand,
> Schyr Henry the Boune, the worthi,
> That wes a wycht knycht, and a hardy."
>
> (Barbour's *Bruce*, B. viii.)

The English knight recognised the King, by seeing him ordering the line of battle, and also "by the crowne, which was set upon his bassynet." De Bohun thought he should have an easy victory, seeing the King on so sorry a nag, and with couched lance he spurred at him, but somehow, "Schyr Henry myssit the noble King." Bruce then stood in his stirrups, and with his battle-axe clove the skull of the English knight, and the violence of the blow broke the shaft of the weapon in twain. The issue of this duel had a great effect upon the spirits of both armies. The English vanguard at once retired; probably it was not thought advisable to hazard an attack, under the *prestige* of a bad beginning.

Next morning at day-break,(1) Maurice, abbot of Inchaffray, placing himself on an eminence, celebrated mass in sight of the Scottish army. He then passed along the front, barefooted, and bearing a crucifix in his hands, exhorted the Scots, in few and forcible words, to combat for their rights and their liberty.(2)

(1) "Bruse cam early yn the morning with 3 Batells of foot, taken Example of the Fleminges that on foot a little afore had discomfited the Pour of Fraunce at Courtray." (Leland's *Coll.*, ii. 547.)

(2) Fordun, xi. 21.

Battle of Bannockburn.

The English army now advanced to the attack. The narrowness of the Scottish front, and the nature of the ground, did not admit of their having the full advantage of their numbers, nor is it very easy to make out what was their order of battle. The vanguard, however, appeared a distinct body, consisting of archers and spearmen on foot. Barbour in one place mentions that the English force was drawn up in nine battles or divisions, but in another place he says—

> "The English men . . . .
> Were not arrayed on such manner:
> For all their battels samyn [altogether] were
> In a *schiltrum*."(1) (Vol. ii., p. 137.)

There is a difficulty as to the meaning of the term, but the probability is, that as there was not space for an extended front, the whole army, excepting the vanguard, was formed in one solid and compact body, perhaps in an irregular mass. While the van of the English army advanced, 800 men-at-arms, commanded by Sir Robert Clifford, were detached from the main army, and made a circuit by the low grounds to the east, and attempted to relieve Stirling Castle.(2) Bruce had enjoined Randolph, who commanded the left wing of the army, to be vigilant in preventing any advanced parties of the enemy from throwing succour into the castle. The attempt was unsuc-

(1) In the Romance of *Richard I.* (sec. iv.), "He brak asunder the *schiltrome*."—"SHILTRON, *turma clipeata*, a troop armed with shields." (Jamieson's *Etym. Scot. Dict.*)

(2) "Duces Anglorum pedites cum arcubus atque lanceis in prima componunt acie; equites diversis alis retro constituerunt. Ex parte vero Scotorum omnes erant pedites." (Walsingham, 104.)

cessful, and the English detachment, after a short but severe struggle, was driven back.

Two large stones erected at the north end of the village of Newhouse, about a quarter of a mile from the south part of Stirling, attest the site of that memorable skirmish.

The English archers of the vanguard commenced the attack with their usual bravery and dexterity, and so fierce was the onset, and so obstinate the resistance, that the result long remained doubtful. Bruce was compelled to call his reserve into the line, and then employed a manœuvre which was eminently successful. He ordered a selected body of 500 men-at-arms—

> "Armyt in to stale,
> That on lycht horse war horsyt welle,"(1)

detached from the right, under command of Sir Robert Keith, to make a *détour*, and by avoiding the bog, and keeping on the firm ground, they were enabled to fall upon the left flank and rear of the English archers. These latter, being unprovided with spears, or any means to defend themselves against cavalry, were instantly thrown into disorder, and spread through the whole English army a confusion, from which it never fairly recovered. The followers of the Scottish army, observing from the hill in the rear the impression produced upon the enemy by the bringing up of the Scottish reserve, fastened sheets to tent-poles and lances, and showed themselves like a new army advancing to battle. This unexpected

(1) Barbour's *Bruce*, B. ix.

apparition completed the confusion which was already among the English, who fled in every direction, and were pursued with immense slaughter. The English cavalry dashing forward to renew the conflict, fell into the trap that had been laid for them, and many riders and horsemen were slain.(1) Barbour says that 200 pairs of gilt spurs were taken from the field.

> "Twa hundre payr of spuris reid (red or gilded)
> War tane of knichtis that war deid."

Edward II., notwithstanding his deficiency in moral courage, showed in the fatal field of Bannockburn personal gallantry not unworthy of his great sire and greater son. He remained on the field till forced away by the Earl of Pembroke, when all was lost. He then rode to the Castle of Stirling, and demanded admittance; but the governor remonstrating upon the imprudence of shutting himself up in that fortress, which must so soon surrender, he assembled around his person 500 men-at-arms, and avoiding the field of battle and the victorious army, fled towards Linlithgow, pursued by Douglas with about eighty horse. They hung upon Edward's flight as far as Dunbar, too few in number to assail him with effect, but enough to harass his retreat so constantly, that whoever fell an instant behind, was immediately slain or made prisoner. The King's ignominious flight terminated at Dunbar, where the Earl of March, who still professed allegiance to him, "received him

(1) Barbour is silent on this circumstance; but it is mentioned by Fordun (xii. 20).

full gently." From thence he escaped to Bamborough in a fishing vessel. His privy seal and treasures, with the military engines and provisions for the army, fell into the hands of the conquerors.(1)

One more incident of the battle is worth narrating, being entirely in keeping with the romantic spirit of the times. Sir Egidius, or Giles de Argentine, one of the most accomplished knights of the period, and Aymer de Valence, Earl of Pembroke, were appointed to attend immediately upon the person of Edward II. at Bannockburn. When the day was utterly lost, they forced the King from the field. De Argentine saw him safe from immediate danger, and then took his leave of him; "God be with you, sir," he said, "it is not my wont to fly." So saying, he turned his horse, cried "An Argentyr"—his war-cry —plunged into the part where the fight still raged the hottest, and soon met that death which he sought.(2) Lord Hailes remarks, that "Sir Giles d'Argentine was a hero of romance in real life."(3)

Such were the immediate consequences of the battle of Bannockburn, than which the English never sustained a more bloody and disastrous defeat. Its

(1) "Boum armenta, gregesque ovium et porcorum, frumentum et hordium cum molendinis portatilibus, et vinum in doliis atque cadiferreis . . . cum petrariis et ligonibus, trabiculis et mangonellis, scalis et ingeniis, pavilionibus et canopeis, fundis et bombardis cæterisque bellicis machinis." (Fordun, xii. 21.)—The *targia*, or signet, was restored to England through the intercession of Ralph de Monthermer, ancestor to Lord Moira, who is said to have found favour in the eyes of the Scottish king. (Continuation of Trivet's *Annals*, vol. ii., p. 14.)

(2) Walsingham, 195. "Dominus Ægidius de Argenter," &c.

(3) *Annals of Scotland*.

more remote effects were the complete re-establishment of the national independence of Scotland. The continuator of Trivet's *Annals* gives the list of the killed and prisoners.

It is remarkable that the Scottish commanders did not reap the benefit of experience, and take advantage of the successful manœuvre adopted by Bruce, namely, of charging the unprotected archers in flank. Almost every subsequent battle which they lost against England, was decided by archers, to whom the close and compact array of the Scottish phalanx afforded an exposed and unresisting mark. The battle of Halidoun Hill, fought scarce twenty years afterwards, was so completely gained by the archers, that the English are said to have lost only one knight, one esquire, and a few foot-soldiers. At the battle of Nevill's Cross, in 1346, where David II. was defeated and made prisoner, John de Graham, observing the loss which the Scots sustained from the English bowmen, offered to charge and disperse them, if a hundred men-at-arms were put under his command. "But to confess the truth," says Fordun,(1) "he could not procure a single horseman for the service proposed."

Battle of Crecy.

At Crecy (Saturday, August 26, 1346), the English army was drawn up in three divisions. The van, under the nominal command of the Prince of Wales, consisted, according to Froissart, of 800 men-at-arms, 2.000 archers, and 1,000 Welsh brigands. The second "battle" consisted of 500 men-at-arms and

(1) "Sed ut verum fatear, nec unum quidem obtinere potuit." (*Scotichronicon*, lib. xliv., cap. iii.)

1,200 archers. The third of 700 men-at-arms and 2,000 archers.

According to this enumeration, the English army amounted to 8,200 men. But there must be some mistake in this, for Froissart himself has stated that Edward had landed a fortnight before at La Hogue, in Normandy, with 4,000 men-at-arms and 10,000 archers, exclusive of Irish and Welsh footmen.(1) Avesbury records that about 1,000 ships, great and small, were required to transport the army and its supplies;(2) and Knyghton, 1,100 great vessels, and 500 small.(3) There had been almost continuous fighting since the day it landed, but the English had invariably proved the victors, and do not appear to have sustained any serious losses. They must, however, have had some: at the forcing of the passage of the Somme, they were attacked vigorously by a French division of 12,000 men.(4)

It has been before remarked (vol. ii., p. 4) that in numerical calculations, men-at-arms should be multiplied by 3, as each one was attended by a page and a custrel; that would add 8,000 more to the sum above, and with Irish and Welsh, the total of the army is generally computed at 28,000 to 30,000 men. It is scarcely credible that Edward would have had the temerity to have landed in France with avowed hostile intentions, accompanied by a smaller force than that.

The position taken up by Edward to await the

(1) *Chron.*, i. 217.
(2) p. 123.
(3) p. 2,585, apud Twysden, *Scrip. Angl. decem.*
(4) Froissart, i. 230.

attack of the French was admirably chosen; no army could have been better posted for encountering the attack of a superior force. On his right for several miles lay the forest of Crecy, the ground gently sloping down to the valley through which flowed the little Maye; on his front, for a couple or perhaps three miles, extended a fine undulating plain, gradually rising towards the road from Abbeville to Hesden. On the left the ground rose abruptly up to a hill that commanded a view of the whole plain; this height sprung from the end of the village, and on it were several windmills. From one of these the tradition is that the King viewed the scene of action.

In rear of the windmills, a little to the left, he was protected by a wood, which formed a belt, extending nearly the whole length of the plain, on his left. In front of this wood, a circle was formed of the wagons, into which all the horses of the army were turned.

The army had halted upon the ground early on Friday morning; the two marshals, the Earl of Warwick and Godefroy de Harcourt, a French refugee, were unceasing in their exertions to make the best possible disposition of the troops, and in surveying the position. The scouts returned and reported that there was no prospect of an attack during that day, and the English obtained a rest, which they must greatly have required. The King and all lay out on the ground that night.

At early dawn the King was afoot, and after having performed his devotions, and most of the army

having partaken of the sacrament, the trumpets sounded and the divisions were formed.

The Prince of Wales's division had the honour of being the van. The men-at-arms were drawn up in line, the light-armed Welsh and Cornish men in rear of them, (1) and the archers in open order along the front, "en maniere d'une herse," as Froissart expresses it; a mode of formation to which further allusion will be made.

The second division, under the command of the Earls of Northampton and Arundel, was drawn up as a wing of the first, in order to act as its support in case of need, (2) and was formed, probably, at a short distance on the left flank, its rear resting on the belt of trees before mentioned.

The third division, under the immediate orders of the King, was in reserve, and occupied the high ground in rear of the position near the windmills.

The skill and order of this disposition, with the tranquillity with which it was effected, must have gone far to compose the minds of the soldiers; and the King, after each commander had received his instructions, that he might further inspirit them, rode through the ranks with such an air of cheerfulness

(1) "Et la *entre* les Anglois avoit pillards et ribaux, Gallois et cornouaillois qui poursuivoient gens d'armes et archers, qui portoient grands coutilles, et venoient *entre leurs gens d'armes et leurs archers qui leur faisoient voie.*" (Froissart, i. 241.)

(2) "Le comte de Norhantonne et le comte d'Arondel et leur bataille, qui faisoient la seconde, se tenoient sur aile bien ordonnément et avisés et pourvus pour conferter le prince, si besoin étoit." (*Ibid.*, 237.)

and alacrity, as conveyed the highest confidence to every beholder. It was then nearly mid-day; [1] the men were then ordered to procure their refreshment; and having replaced their eating and drinking utensils in the carts, they sat down on the ground in their places, with their arms and basinets laid before them.

What admirable confidence—what bravery and discipline! That little army had sat down to eat what reasonably might be expected to be the last meal to many—perhaps to all; and there they rested on the ground, to await the arrival of the mighty host that was on the march to assail them; we do not hear of a dissentient voice, not one case of desertion, not a whisper for pacification or evasion from the death encounter.

The King of France had passed the Friday night in the Abbey of St. Peter at Abbeville, his numerous army lying out in the adjacent towns and villages wherever they could find shelter. At sunrise he issued forth to assemble the army, and to commence his march towards Crecy, distant about ten miles. Philip had collected his forces from all parts; witness the crowned heads and "grands seigneurs" who were present. Froissart states, when 12,000 men disputed the passage of the Somme with him, that the remainder of the French army amounted to more than 100,000 men. He also says that the forces of the King of England did not amount to one-eighth part

(1) "Il fut heure de haute tierce." (Froissart, i. 235.)—A canonical division of the day, from about 9 a.m. to about noon.

of those of the King of France; taking the French army at 100,000 men, an eighth would amount to 12,500. So that it would appear that he either overrates the numbers of the French, or underrates those of the English.

The march of the French army was effected in so disorderly a manner, that the knights who had returned from reconnoitring the English army, advised a postponement of the engagement till the morrow, when the troops would be refreshed, and when the whole army could be brought up together and marshalled. The King, approving, sent orders to the front and rear to halt, but the commanders were too independent to obey, and the masses in the rear kept surging on, forcing forward the van, till they came within sight of the English. When Philip beheld the enemy, he lost all control of himself, and ordered his marshals to bring the Genoëse archers to the front, (1) and directly to commence the attack, "au nom de Dieu et Monseigneur Saint-Denis."

The Genoëse were considered the most accomplished arbalestiers of the day; there were about 15,000 of them present with the French army. They represented through their constables that they were sorely wearied, having already marched more than six leagues, all armed, and having their cross-bows to carry, and were consequently unfitted for great exertion. Their remonstrance was, however, unheeded, and Count d'Alençon, the King's brother, took the opportunity

(1) Under the command of Carolo Grimaldi and Antonio Doria. (See G. Villani, l. xii., c. 66.)

of reviling them, in unison with that sentiment of chivalry which despised the foot-soldier.

At this juncture we are told that a fearful thunder-storm occurred, accompanied with torrents of rain, which obscured for a while the light of the sun; when it had passed away, the sun again shone forth brightly, in the eyes of the French, but on the backs of the English.

The French came into action without any marshalling of their ranks; as soon as the Genoëse could be collected in a mass to the front, they shouted as loud as they could, with the object of terrifying the enemy. (1)

What a contrast was presented on the other side! As soon as the French army appeared, the English sprung to their feet, and without any hurry or confusion stood in their places. They remained perfectly still, as long as the shouting only continued; but as soon as the Genoëse made ready their cross-bows, the English archers advanced one pace to the front, and let fly such volleys of arrows, with such rapidity and precision, that the chronicler likens it to a snow-storm. (2) It is generally asserted that the Genoëse had suffered their bow-strings to get wet, and that thus relaxed, their quarrels fell short of their mark. Froissart does not mention the circumstance, but it is

(1) This was the usual mode of proceeding. So at the battle of Verneuil, in 1424:—". . . Et à l'approcher élevèrent tous ensemble les Anglais un grand cri, comme ils ont accoutumé de faire, duquel s'émerveillèrent moult les Français." (Monstrelet, liv. ii., chap. xx., p. 538; edit. du Panthéon.)

(2) "Que ce sembloit neige." (i. 237.)

likely enough; it would be difficult to wrap up a cross-bow, and we have grounds for believing that the English archers were provided with bow-cases. In the records of the Exchequer, among other items, there are payments of "leathern cases for bows and arrows," supplied to Edward III. between the years 1344 and 1347. (1)

Froissart says the Genoëse did not expect to find such archers as the English were,(2) and being pierced by the unerring shafts in all directions, were easily beaten, most of them cut their bow-strings,(3) and some flung their weapons away, turned round and retreated.

Immediately in rear of the Genoëse was a strong body of men-at-arms, drawn up in line. When King Philip beheld the discomfiture of the cross-bowmen—disgusted with their inertness—seeing, too, that they were throwing the whole of the van into confusion—instead of endeavouring to rally them, or allowing them to retreat on the flanks, he called out to the men-at-arms to "kill the riff-raff (*ribaudaille*) who were needlessly stopping the way."

The order was obeyed, and dismal was the scene,

(1) *Archæol.*, xxxii. 381.

(2) "Les Gennevois, qui n'avoient pas appris à trouver tels archers que sont ceux d'Angleterre, quand ils sentirent ces sagettes qui leur perçoient bras, têtes et ban-levre [face] furent tantôt déconfits." (*Ibid.*)—It was not, however, the first occasion on which Genoëse and English archers had met. (See Froissart, i. 186.)

(3) With the object of rendering them useless, or of employing the stock as a weapon. At Mons-en-Pévèle, the cross-bowmen of Ghent felt so little confidence in their arm, that they cut the strings, and used the stock as a mace. (*Monacus Gandavencis*, fol. 414), quoted in *Hist. de l'Artillerie en Belgique*, 1865, p. 22.

when those mailed horses and warriors rode down and trampled to death those on their own side! The Genoëse, seeing the little value at which their lives were estimated, fought with the horse to force a passage through them. A wild cry of despair and madness rose as they vainly contended with fearful odds—the heavy horse in front, the English arrows in the rear, bringing horse and foot to the ground as they crunched through armour and head-piece; horse and rider thus overthrown, impeded the passage of those following, who, rolling over them, created one of those fearful scenes of warfare which required only one deepening touch to render it the sublime of the horrible, and that was when the Welsh and Cornishmen, rushing out from amidst their men-at-arms and archers (who never quitted the ranks), drew their long knives and cut the throats of all rolling on the ground. Counts, barons, knights, and esquires, whatever their degree, thus perished, for mercy or ransom was unknown that day.(1) Perhaps, too, at this moment, the three or four cannon which Edward is said to have brought with him, were discharged, and added noise to the confusion, if no more fatal result.(2)

At last two gallant knights, the Count Louis de Blois (nephew of King Philip), and the Duc de Lorraine, extricating themselves with their commands

(1) "Ni nul étoit pris à rançon ni à merci, car entre eux ils l'avoient ainsi au matin ordonné." (Froissart, p. 239.)

(2) The question of the presence of guns in the English army has been discussed already. (*Vide* p. 206.)

from the disordered van, fell fiercely upon the Prince of Wales's division. They were followed by a crowd of auxiliaries—French, Germans, and Savoyards—who broke through the ranks of the archers, and reached the men-at-arms, whom they engaged in desperate sword-to-hand combat. The second English division now advanced in support of the Prince, but the conflict grew fierce and doubtful, and Sir Thomas Norwich was sent to the King to request a reinforcement. Edward, who from the windmill had noted every move of the battle, demanded if his son were killed or thrown, or so wounded that he could not help himself. On being told that he was uninjured, but hard pressed by the enemy, the undaunted monarch declined to interfere, in order that the honour and glory of the day might remain to the Prince alone, and to those who had him in charge. This answer was hailed as a prediction of victory, and infused fresh courage into the combatants.

Attack after attack was made and repulsed. The English never quitted their position. Philip was impatient to join the Count d'Alençon, but the archers and the men-at-arms in his front opposed an impenetrable barrier. At each charge he lost the bravest of his attendants; his horse had been killed under him; and his friends advised him, but in vain, to retire. At length it began to grow dark; his brother and the Count of Flanders had fallen; the battle was evidently lost, when John of Hainault, begging him to reserve himself for victory on some other occasion, laid hold of his bridle, and led him away by force. With a

small retinue of five barons and sixty men in all, he escaped to the city of Amiens.

Thus the two divisions of the English had defeated the entire French army, the number of the slain far exceeding that of the slayers. In detached bodies, many in ignorance continued to charge the English, but, as they were isolated, it was only to their own destruction. As the darkness increased, the fighting gradually ceased. The loud shout, the call to comrades, and the cry for banners died away. Silence spread over the plain. Edward, who had never put on his bassinet during the whole time, now descended from his position. The meeting of sire and son must have been interesting. The King threw himself on the neck of the heroic Prince, and extolled his conduct. Young Edward received the congratulation with becoming modesty and submission.

That night, fires were lighted, the English army bivouacked on the ground in quietness and order, for the King would not allow any one to leave his post. The darkness of the night was succeeded by a dense mist in the morning. To gain information Edward sent out before sunrise a division consisting of 500 men-at-arms and 2,000 archers, who soon found themselves in the midst of a body of the enemy from Beauvais, Rouen, and Abbeville, which, ignorant of the preceding events, had marched all night to overtake the enemy. These Frenchmen, unsuspicious of danger, and unprepared for sudden attack, were massacred almost without resistance. A similar mistake proved equally fatal to the Archbishop of Rouen, and

the grand prior of France, who were coming up with a numerous body of men-at-arms. As the day cleared, thousands of Frenchmen were discovered in the fields, who had passed the night under trees and hedges, in the hope of finding their lords in the morning. These too were put to death by the English horsemen: so that the carnage of the second is asserted to have exceeded that of the former day.

In the course of the day, the King ordered the Lords Cobham and Stafford to examine the field of battle. They took with them three heralds, to ascertain from the surcoats of the knights, and two clerks to record, the names and rank of the slain. In the evening they presented their report, by which it appeared that eleven princes, 1,200 knights, and about 30,000 men had fallen. The King and Prince lamented especially over the death of the valiant King of Bchemia,(1) a proof that in Froissart's time it was not believed that he had fallen by the Prince's hand. A truce of three days was proclaimed to allow the enemy to bury their dead; and Edward assisted in mourning at the funeral service in the neighbouring church of Montenay.(2)

The French army was sufficient to have enclosed the enemy; had proper measures been taken, the victory must, in all human probability, have remained on the other side. But, without diminishing aught

(1) "Et par espécial, le roi d'Angleterre et son fils complaignirent longuement la mort du vaillant roi de Behaigne, et le recommandèrent grandement, et ceux qui de-lez lui étoient demeurés." (i. 243.)

(2) Probably *Maintenay*, on the river Authie." (Note to Buchon's edition of Froissart.)

from the merit of the little army, it is clear that the salvation of the English and the awful disaster of the French were attributable entirely to the misconduct of the French commanders.

It is interesting to know that the battle-field remains very much in *statu quo*: the forest, though in diminished extent, is still there, and King Edward's windmill exists in substantial repair. It is known by the name of the "*Moulin de pierre*," but it has been repaired recently with brick. A stone cross erected in memory of the King of Bohemia, and supposed to mark the spot where he fell, has lately been restored, and stands on what is now known as the "*Chemin de l'armée*."(1)

In a small volume, in the possession of Sir Henry Ellis, dedicated to Lord Burghley, and imprinted at London in 1593, entitled, *The Description of the Low Countries, and of the Provinces thereof, gathered into an Epitome out of the "Historie of Lodovico Guicciardini,"* this sentence occurs: "In the Convent of the order of St. Francis in this Towne (Luxembourg) lieth buried John King of Boheme (sonne to the Emperour Henry the 7, and father to Charles the fourth), slain at the battaile of Crecy by the English, An. 1348."(2)

Herse.

The term "*herse*," which Froissart employs to exemplify the manner in which the English archers

(1) Some of the local information was derived through the kindness of Walter Lawrence Lawrence, Esq., F.S.A., and the Curé de Crécy-en-Ponthieu.

(2) See *Notes and Queries*, 3 S., xi. 369.

were drawn up at Crecy and elsewhere, having a double signification, admits of some misapprehension. "Les Anglois etoient ordonnés en trois batailles," he says, speaking of Crecy, "celle du prince tout devant, leurs archers mis en manière d'une herse, et les gens d'armes au fond de la bataille." At Poitiers he records a similar arrangement: "Les gens d'armes ont mis tout devant eux les archers en manière d'une herse."

The word "*herse*" in French denotes a harrow (the shape of which agricultural instrument in France was, and indeed is still, generally triangular), and also that pyramidal instrument upon points of which candles are still affixed in churches in that country. In this latter sense, the word is often to be found in wills and in the old accounts of English church-wardens. (1) Father Daniel (*Milice Française*) and other writers, French and English, have therefore asserted that the English archers were drawn up in triangular-shaped bodies. Again, "*herse*" in fortification is used to express a movable sort of defence, formed of pieces of timber, joined cross-ways, stuck full of iron spikes, and so called doubtless from its similitude to a harrow, let down by the besieged in front of the gate of a castle to defend it when attacked, or to stop the passage of assailants into the fortress.(2)

(1) "Et ma volunte est d'avoire *un herce* ov synke tapirs." (Will of Brian de Stapilton, A.D. 1394. *Testamenta Eboracensia*, clix.)—Also "For making the herse lyghtes and the paskal tapers." (Church-wardens' Accounts of St. Helen's, Abingdon, in *Archæol.*, i. 11.)

(2) "Herse (ἑρκίον), barrière ou cloture dont on environne une maison pour la fortifier. Instrument qui a divers rangs de dents." (*Dict. de l'Académie.*)—See also James's *Mil. Dict.*, in *voce* "Herse."

In this sense it is used by one of the translators of Froissart. "The archers (at Crecy) were formed into the manner of a portcullis or harrow." (Edit. Johnes, i., ch. cxxix.) This appears the most natural interpretation, and that in fact Froissart meant no more than that the archers which were posted along the front should be a bulwark and an impediment in the same manner as a herse or palisade of a building impedes the advance of besiegers, and the ranks of the archers bristling with arrows in position might perhaps continue the resemblance. (1) The following passage in Grafton's *Chronicle* corroborates this interpretation:—"He (Richard III.) drew up his vanguard in a long continuous line of horse and foot, and in advance of these he placed the archers, *like a strong fortified trench or bulwark.*" (ii. 151.)

"Herse," says Barnes in his *History of Edward III.*, p. 336, "is undoubtedly the best way of embattling archers, especially when the enemy is very numerous, as at this time (at Crecy); for by the breadth of front, the extension of the enemie's front is matched; and by reason of the thinness in flank, the arrows do more certain execution, being more likely to reach home."

Archers were of course placed in front, where they could obtain an uninterrupted view of the objects they

(1) Vide *Anc. Arm.*, ii. 77.—Also *Études sur l'Artillerie.* "Munis de leurs pieux, ils [*i.e.*, the English archers] formaient une barrière infranchissable, et Froissart les comparait non à un instrument aratoire, mais à la grille de fer nommée également herse." (i. 22.)—We do not, however, hear of archers' stakes until the battle of Agincourt.

had to aim at, and open order would be the best adapted for their work. But the word "*cuneus*" has been used to designate the formation of bodies of archers. We find this expression used in the narrative of an eye-witness, one of the priests that accompanied Henry V. in his expedition to France in 1415. (1) "Intermiscuisset cuneos sagittariorum," he says, describing the mode in which the King arranged his forces at Agincourt. It will appear that the main body of archers, protected by their stakes, were drawn up in front, and that small parties were placed in the intervals between the three grand divisions which were all in line, which filled up the spaces *like wedges,* without necessarily implying that they were triangular.

The wedge-like formation was, however, often adopted, and was of ancient origin. The Greeks made use of it and called it *ἔμβολον,* it was like the letter Δ; there was also the converse, like the letter V, to which they resorted to meet an attack directed against them in the former shape. The Romans adopted it, and called it *cuneus* or *trigonum,* which the soldiers nicknamed *caput porcinum.* (2) But these were solid triangular-shaped masses of heavy-armed infantry, so

(1) This narrative exists in MS. in the British Museum, in the Cottonian Library (*Julius,* E. iv.), and in the Sloane MSS., No. 1,776. It is also printed by the English Historical Society (*Gesta Henrici Quinti*).—Sir Harris Nicolas gives a translation of it (the original is in Latin), and continually refers to it as the work of "the most valuable writer of the period," although an anonymous historian, under the designation of "Chronicler A." (*Vide* Preface, *Hist. of the Battle of Agincourt,* p. ix.)

(2) Vegetius, lib. iii., cap. xix.

ordered for the purpose of breaking through the enemies' ranks, which did not enter into the plan of operations for the English archers to do, either at Crecy or Agincourt. We hear of the German cavalry being formed into the wedge, in the fourteenth century, by a graduated extension of the files, beginning with seven men at the apex: "As was usual," says Fronsberger, "with the ancients, who sharpened their battle array (for the horsemen), or formed it into a triangle; thus, perhaps, there were seven men in the first file, eight in the next, nine in the third, ten in the fourth, up to half the men," &c. (1)

In 1302, a body of Flemish artillery adopted a similar formation, with the peculiarity of taking each other's arm, to prevent their ranks being broken in acting against the French. "Les François virent une très grande bataille (des Flamands) qui contint bien huit mil hommes, et avoient ordonné leur bataille en guise d'un escu, la pointe devant, et s'estoient entrelaciez l'un en l'autre, si que on ne les peut percier." (2)

The fighting Bishop of Norwich (A.D., 1382; see before, vol. i., p. 272) drew up his infantry in wedge-shape, to fight against the Flemish. "The Bishop placed himself among the horsemen, and set the footmen in a battell, marshalled edgewise wedgewise, broad behind and sharp before; the archers were ranged on either side." (3)

(1) *Kriegsbuch*, B. ii., fol. 66.
(2) MS. Chron., cited in *Études sur l'Artillerie*, i. 12.
(3) Hollinshed, p. 442.

The battle of Maupertuis, or, as it has been more familiarly known as that of Poitiers, was an instance of a victory gained by generalship, or, more properly speaking, by strategetical skill. It was by strategy that the Black Prince saved his little army, and reaped an almost unequalled victory. The tactics he made use of were of the simplest character. The merit of the English at Crecy was the intrepid steadiness with which they stood up against an overwhelming force. The experience of five centuries confirms this as the characteristic of British soldiers. At Poitiers, the position selected by the Black Prince saved the little English army from annihilation, and the same unflinching confidence was present there, too. Mr. Hallam observes that we have less reason to be proud of this victory, as the majority of our army was composed of Gascons.(1) With an army which no historian makes amount to 12,000 men, and which, if Froissart is to be believed, consisted of only 8,000, which he had led in what would be termed in these days a "filibustering" expedition, he found himself about to be attacked by an army whose numbers are variously estimated at from 40,000 to 60,000 men, under King John and most of the nobility of France.(2) Young Edward of England quailed not. Retreat, had he contemplated it, was impracticable. There was no alternative but to await

(1) *Mid. Ages*, vol. i., ch. i., pt. ii., p. 54.

(2) Knyghton says the number of the French in the battle, "de omni populo," was 40,000.—Froissart says they were full 50,000 fighting men, of which 3,000 were knights. (i. 346.)

the coming of the King, who was marching upon him in all haste, and to fight it out as best he could. With this view he selected the best possible ground for such an encounter. His right rested on the foot of a hill, his left was protected by hedgerows and bushes; the approach to his front between these two was so narrow, that scarcely four horsemen could ride abreast. His rear was surrounded by vineyards. These natural advantages he had availed himself of, and he had artificially strengthened his camp as far as possible. The carts and baggage were brought in and ranged at the rear, so as to strengthen weak places. For two nights he occupied this bottle-shaped position, awaiting the voluntary but unavailing mediation of the Churchman, who tried to stop the effusion of blood, and who went backwards and forwards, from one army to the other, on his peaceful errand. King John, irritated by the young Prince's temerity, and thinking that the moment of vengeance had arrived, offered such terms as the gallant Englishman would not accept.

How bravely the little army held out! how strong its *morale* must have been! for the English were short of provisions, and they feared delay more than fighting the French. The utmost prudence and courage could not have saved them, had the King of France been aware of his present advantages and known how to deal with them. His great superiority in numbers would have enabled him to surround the English position, and, by cutting off the possibility of supplies, have forced them to surrender at dis-

cretion. A single hungry deserter could have told the tale, and the English would have been at the mercy of their foes. But there was not that one.

At the end of the lane where the ground bulged out the Prince drew up his men-at-arms on foot, their horses being close by, in case of need. Immediately in front of these were the English archers, disposed, as Froissart expresses it, "en manière d'une herse." A small party of knights only were kept mounted, ready to act as circumstances might require. In advance, under cover of the vines and hedges on either side, archers were posted, to command the entrance to the defile. In addition, 3,000 horsemen and the like number of archers were ordered to wind round the hill on the right, and surprise the enemy in flank.

The King of France drew up his army in three divisions of 16,000 each, all on foot; and as there was no reaching the English army except through the narrow lane, a chosen band of 300 knights and esquires were appointed to ride through it, and break the archers. There was also a corps of German horsemen, who were to be kept in reserve to support the divisions of the French marshals. The attacking force of the 300 was to be immediately followed up by the divisions of the dismounted gens-d'armes—in column, we may presume—who were to engage the English men-at-arms hand to hand. This plan of operations was suggested by Eustache de Ribaumont, and, unfortunately for the King of France, adopted.

No sooner did the French mounted party appear

in the lane than they were assailed by such deadly volleys from the archers who lined the hedges, and who being very near them, and yet placed in perfect safety, coolly took aim and slaughtered them with impunity, that the whole body was thrown into confusion. But few of them were enabled to penetrate and emerge in front of the English, and these met with so warm a reception that they were either killed or taken prisoners; the horses, maddened by the long barbed arrows, [1] became unmanageable, the passage was choked, and the supports were unable to advance. The consequence was that the large force which was marching on this point was thrown into frightful confusion. At this critical moment the horsemen and archers, who had been sent round, made their appearance, and attacked in flank the division under the Dauphin. This completed the disorder in his ranks, and the men recoiled and carried confusion to the others.

The Prince saw his opportunity and seized it. He made his way out with the men-at-arms who were ready mounted, and dashed in, shouting their loud war-cries, amidst the surging masses of the French. To preserve any order in retiring was impossible; the retreat was soon changed into a flight. The German horse, giving up all for lost, followed the example, and galloped from the field.

The French King did his utmost to retrieve the fortune of the day, fighting on foot with a battle-axe, his youngest son Philip, at that time not fourteen

[1] "Longues sajettes barbues." (Froissart, i. 347.)

years of age, valiantly remaining at his side. But his courage was insufficient to stem the consternation that had become general; at length, spent with fatigue and despairing of success, he yielded himself a prisoner, and was carried to the presence of his conqueror and cousin, the Prince of Wales.

Battle of Agincourt.

Passing over a space of time, we alight at Agincourt, and there we see two armies watching each other on a cold, stormy day of October, 1415. One, composed of way-worn Englishmen, looking insignificant in point of numbers to the magnificent display made by the other, for most of the nobility of France was there, clad in heaviest armour, with barded horses fresh for the encounter, whose very banners and other ensigns (according to the testimony of a contemporary) (1) more than out-numbered the men-at-arms on the other side.

It was a trying time for those English as they stood in their ranks in momentary expectation of an attack, but they displayed the courage of true Christian soldiers, for many of them fell on their knees, and with clasped hands implored the protection of God, and were eager to confess their sins, (2) feeling how desperate was their position; but none of the writers, French or English, record the fact of any of them having deserted their colours.

It was a relief for them when at sunset the French columns were observed marching off the ground, and

(1) Elmham, p. 63.

(2) St. Remy, p. 89.—"Lefevre de Saint Remy, gentil-homme, Picard du parti Bourguignon, qui suivait l'armée de Henri." (Michelet, *Hist. de France.*)

taking up quarters for the night in the orchards and villages of Agincourt and Ruissauville. This operation was performed amidst much noise and vociferation; but King Henry, who maintained a rigid discipline, forbade his troops from following their example, and commanded silence to be observed under the usual penalties of the articles of war. (1) Henry's attention was then directed to find some place of shelter for his troops, for they were exhausted by hunger and their long day's march. A white road shining in the darkness seemed "providentially" (2) to have led him to the village of Maisoncelle, and there the English army was better supplied with provisions than it had been since it left Harfleur, and a cottage was assigned to the King for his night's lodging. (3) Thus those who on the morrow were to be ranged in such deadly strife were lying in bivouac but one short mile from each other. That night—the eve of a terrible battle—was passed by the two armies in a manner strictly consistent with their relative situations. The French nobles unpacked part of their baggage, and procured straw to lie down upon, as the weather was cold and rainy; and confident in their numbers, they are reported to have played at dice for the disposal of the prisoners which they calculated on securing. The English, on the other hand, prepared their weapons for the coming conflict, and themselves by confessing and receiving the sacrament. (4)

(1) Pierre de Fenin, p. 400.
(2) Titus Livius.
(3) Titus Livius.
(4) Monstrelet.

During the night there was an attempt made to surprise the English, which, however, failed. But when all was quiet, Henry ordered some competent officers to examine the ground by moonlight, by whose report he was the better enabled to array his forces.(1) At daybreak both armies were on the alert. The energetic King of England, at the conclusion of his religious exercises,(2) mounted on a small white horse, quietly ordered out his forces, and drew them up without sound of trumpet. He seized all the natural advantages of the ground, and posted them most advantageously. The position was admirably calculated to preserve a small army from being surrounded by a great one. The lines extended as far as the open space would permit; and the same causes which acted prejudicially to the French were favourable to the English, for their flanks were protected by coppices and hedgerows, whereas these enclosures were among the causes of the discomfiture of the French, for they prevented the deployment of their masses. The whole force of the English was drawn up in line, four deep, with no reserve. The King took the command of the centre; the van, under the Duke of York, was posted as a wing on the right; and the rear, under Lord Camois, as a wing on the left. A handful of men-at-arms and archers was detached as a guard for the baggage that was left at Maisoncelle, about a

(1) Elmham, p. 59.

(2) "Car il avoit coustume d'en oyer chascun jour, trois (messes) l'une après l'autre." (Jean de Vaurin, *Chron. d'Angleterre*, vol. v., pt. i., ch. 9.)

mile to the rear, and there the priests that attended the army were stationed.(1) It is to one of these, "sitting on horseback among the baggage in the rear of the battle," that we are indebted for a valuable and detailed account of Henry's expedition from first to last.(2)

The archers were placed in advance of the line, in two triangular bodies, in the intervals between the wings and the main body. They were protected by those stakes with which they had been ordered to provide themselves when an attack from cavalry was anticipated on the march from Harfleur. These stakes were six feet long, sharpened at both ends; and they were directed to plant one sloping inwards, and the other outwards, towards the enemy, thus making a very efficient defence in the shape of chevaux de Frise. The military chaplain before referred to, who evidently took great pains to ascertain everything that occurred, writes that the King mixed up wedges of archers between each division.(3) St. Remy, an eye-witness of the battle,(4) says, "The King only formed one line, and all the men-at-arms were placed in the middle. On the sides of the men-at-arms were the archers." (pp. 89, 90.) According to Monstrelet, a contemporary French writer, "Sir Thomas Erpingham placed the archers in front, and the men-at-arms

(1) St. Remy, p. 89.

(2) See before, note, p. 543.

(3) "Et intermiscuisset cuneos sagittariorum suorum cuilibet aciei." (See before, p. 543.)

(4) "And it is true that I was with them (the English), and saw that which I have related."

behind them. He then formed two wings of men-at-arms and archers" (Edit. 1595, p. 228.) This, perhaps, is what the priest meant by "intermiscuisset cuneos." In Sir Harris Nicolas's *Agincourt* there is a plan of "The position of the English and French armies on 25th Oct., 1415." In this the wings are placed in advance of the centre, and the archers in one large wedge between the wings. He does not state his authority for this arrangement, and it does not agree with the statements just quoted. Moreover, Agincourt is depicted on the French left, whereas Tramecourt was on their left, and Agincourt on their right.

The position taken up by the French was an extremely injudicious one—in the plain between Agincourt and Tramecourt, which skirts the high road to Calais,(1) consequently, with a view of intercepting the English on their march thither. The ground was, however, wholly inadequate for the movements of such an immense body(2) as they consisted of, and the extension of their front was restricted by the existence of two roads. The consequence of this was that they were deprived of the advantage they should have derived from their prodigious superiority of numbers. They were drawn up

(1) Elmham, p. 62.

(2) To the copious investigation of Sir Harris Nicolas (*Agincourt*, p. 109) we are indebted for a statement of the numbers of the French army as they are given by the contemporary writers, French and English. From their contradictory estimates, it will be seen how difficult it is for us to form an accurate calculation. As a *résumé* we may state that the greatest number given by the English writers is 150,000 men; the lowest, 60,000. The greatest number given by French writers, 150,000 men; lowest, 10,000 men-at-arms.

in three divisions, with two wings, forming their lines in two sharp fronts like two horns, increasing towards the centre; a formation, no doubt, necessitated by the confined character of the ground. They were obliged to form their lines unnecessarily deep, thirty-one files,[1] and their archers were so crowded as to prevent their acting efficiently. Of the wings, one consisting of 1,600 men-at-arms was designed to attack the flank of the English; the other, of 800 picked men-at-arms on horseback, to break their line. They are also stated to have had several pieces of ordnance, on the flanks, but whether they did any execution, or whether they went off at all, is not told us;[2] as to the English, the probability is that they had none. The armies remained inactive for some hours. It appears that negotiations were on foot for an adjustment of differences, but it is not clear from which side they emanated—at all events, they were broken off. Towards noon, Henry thinking that the French might be waiting for some reinforcements, and that delay could only bring increased danger to him, gave the order to attack. "Banners advance," said the King, and the venerable Erpingham threw his truncheon in the air, exclaiming, "Now strike." A curious scene was then witnessed: the whole English army prostrated itself on the ground, and each man, beseeching the protection of the Almighty, put a small piece of earth into his mouth, in remembrance, it has been conjectured, that

(1) St. Remy, pp. 88-92.
(2) St. Remy.—Livius.—Elmham.

he was mortal, and formed of dust.(1) They then in gallant trim marched against the enemy "in three lines," that is, in one line three deep, the men shouting, and the trumpets sounding.

It must be borne in mind that the English forces were all dismounted, but the French mostly mounted; the English relied on their archers, the French on their men-at-arms. The battle commenced by the English archers discharging their arrows as soon as they came within range of the enemy. A French division of men-at-arms attacked the archers on each side, but was speedily forced to retire; and the other division, which was specially directed to break through the archers' ranks, was repulsed by coming into contact with the stakes. The ground was unfitted for the movements of cavalry, not only from its enclosed character, but also from its wet and spongy state.(2) The weather having proved cold and rainy, it had been found necessary to keep the horses moving all night. The consequence of the tramping of some thousands of horses may be easily imagined; it

(1) A singulis in ore capta terræ particula." (Tit. Liv., 18; Elmham, 65.)—This singular custom had been introduced by the peasants in Flanders before the great victory which they gained over the French cavalry at Courtray, in 1302. A priest stood in front of the army, holding the consecrated host in his hand, and each man, kneeling down, took a particle of earth in his mouth, as a sign of his desire and an acknowledgment of his unworthiness to receive the sacrament." (G. Villani, l. viii., c. 55, p. 335.)—As late as the battle of Flodden we hear of Sir Bryan Tunstall taking up mould and putting it into his mouth, in token of his mortality. (See *Archæol. Ælian.*, N.S., iii. 217.

(2) "La terre profondement detrampée était composée d'une argile tenace" (stiff white clay). (Sismondi, *Hist. des Français.*)

rendered the ground in front of the French position like a quagmire. The English could not have had a better entrenchment. All the contemporary historians make mention of the very heavy armour of the French knights and men-at-arms. The horses became easy victims for the archers' shafts; they floundered in the deep mud; infuriated by wounds from arrows, they became unmanageable; many fled upon the van, and threw the whole line into confusion. Henry took instant advantage of this fortunate circumstance by ordering a rapid advance. The French advanced guard suddenly altered its front, formed in three columns, and charged with all the intrepid fury of a French onset. The English gave way, but were quickly rallied, and their lost ground was recovered. The conflict then was very severe. The English archers having expended their arrows, threw aside their bows, and seizing axes, poles, swords, and spears, which were lying about in all directions, committed great havoc. The assailants speedily reached the French second line, and here for a time the English met with a fearful resistance; but the confusion in the front had extended to the rear, and those numbers on which the French had placed such reliance became the chief cause of their destruction. The rear seeing the disasters in front, took to flight; as a last effort, a gallant charge was made by the Counts of Marle and Fauquembergh at the head of some 600 men-at-arms, but without success, and they shared the fate of the bravest of their comrades. The battle lasted about three hours. Although the archers have been

specially mentioned, every man in the English army must have been able to give a good account of himself, for the number of slain in that short period, considering that it was hand-to-hand work, was prodigious—the King was specially prominent. It can be told of very few victories, Crecy excepted, that the number of the enemy slain was greater than the entire force of those that slew them. The French lost 10,000 men, the English 1,600.(1)

At one period of the action, a report being brought to the King that his rear was about to be attacked, he issued orders for the slaughter of the prisoners, and an esquire and 200 archers were detailed for that horrible office. It is not too much to be believed that Henry had recourse to it with repugnance; even the French contemporary writers justify the butchery as an act of self-preservation. (2)

(1) See the accounts of French and English writers, collected in Nicolas's *Agincourt*, p. 132.—It is an interesting coincidence that in 1816 a portion of the British army was cantoned in the immediate neighbourhood of this celebrated battle-field, and the different corps were invested with their Waterloo medals on the field of Agincourt.—See a communication addressed to the Royal Society of Literature in 1827, by Dr. John Gordon Smith, who was present on the occasion. The writer states that the changes that have taken place in the field of Agincourt are singularly few, and that it remains (in 1827) sufficiently in *statu quo* to render the accounts of the battle perfectly intelligible. Those who travel to Paris *viâ* St. Omer and Abbeville, pass over the scene of the action. It is about sixteen miles beyond St. Omer, and about thirty from Abbeville.

(2) The old French chronicle is frequently quoted by Fabyan, and gives the reason for the lamentable slaughter of the prisoners—viz., an expected attack from the troops of the ex-King of Sicily, which is valuable testimony from a foreigner.—Hardyng records the following fact, which ought to be mentioned in justification of the humanity of the English at this period:—After the victory gained by the allied

The three battles of Crecy, Poitiers, and Agincourt present a striking affinity to one another in their most important features, and illustrate the mode of warfare of the chivalric period which they embrace. From Crecy in 1346 to Agincourt in 1415, very little change is perceptible in the military art. War was still a desultory and predatory *raïd,* without any defined basis of operations. The science of artillery had made but very little progress. What a change had been wrought in 1815, four hundred years later, when the same nationalities were again arrayed in warfare, and when 402 guns were brought to bear on the ranks of the contending armies! (1) These three great battles were each won by the archers. It was, *par excellence*, the epoch of the bow. Allowing due merit to the English princes for their selection of the positions, it was the shafts from the archers' bows that caused the confusion in the enemy's ranks. The French knight and the English knight were a match for each other, but the sturdy, sinewy, well-practised English bowman was unrivalled. On each of these grand occasions the same characteristics are apparent: on the part of the English princes, reckless temerity; with scarcely any higher notion than that of plunder or bravado, they had ventured so far into their enemy's territory, as to leave themselves no chance of

Burgundian and English forces at St. Cloud, in 1411, the Duke of Burgundy proposed to put the French prisoners to death, but the English interposed, drew up their men in battle array, and declared they would rather die than see their prisoners murdered. (Note, p. xii., to *Gesta Hen. V.*, Eng. Hist. Soc.)

(1) Wellington's *Despatches.*—Siborne's *Waterloo*, App. xxx.

retreat. On the part of the French commanders, extraordinary imprudence, by which the English were saved from inevitable destruction. On the day of action, again, there appears the same presence of mind, skilful strategy, indomitable courage, and confidence in the result, on one side; the same precipitation, confusion, and vain confidence on the other. The immediate results, too, of these victories were similar: a trifling loss on one side, great slaughter on the other; and the victors, instead of pursuing their advantages, and pushing the French with vigour, seem immediately to have relaxed their efforts. The poverty of all the European princes, and the small resources of their kingdoms, had, doubtless, much to do with these continual interruptions to hostilities, which reduced military operations rather to incursions than campaigns.

The victory of Agincourt was one of those instances of extraordinary success which seem sometimes to attend on foolhardy adventures. It was a battle gained against all reasonable calculation and hope. Chivalrous feeling was rife in the King, but nothing can justify his audacious march through a hostile country, with the wanton exposure of life it entailed on every one concerned.

The little army that conquered at Agincourt, it will be remembered, was the remnant of that force of 30,000 which two short months before had entered the Seine and invested Harfleur. But they had been so wasted by dysentery, that Sir Harris Nicolas, who has attentively considered the subject, and who through-

out his elaborate history has given a most impartial account, is of opinion that after the necessary guard was left behind for the defence of the town, the English army that marched with the King from Harfleur did not exceed 9,000 men, with a strong probability that it consisted of little more than 6,000. (1) With such a force as this—many of them still suffering from the effects of the pestilence—Henry hesitated not to send home his fleet; and, instead of sailing direct for England, to contemplate reaching it by the circuitous route of Calais, which was, by way of bravado, marching right through his enemy's country. From the 8th to the 24th of October, this band of devoted followers had endured all privations consequent upon their perilous position. They carried eight days' provisions with them; when they were exhausted, they had to rely upon obtaining their supplies *en route*, not always an easy matter; but in some instances they were provided with bread and wine. (2) The King's spirit never flagged; he maintained a rigid discipline, and he even hanged one of his own men for robbing a church of a copper-gilt pix, on the line of march. And when the hour of his utmost peril had arrived, and he was confronted by an enemy at least ten times greater than his own, he refused the terms of peace that were offered to him.

(1) *Agincourt*, p. 78.—The priest's account is, "that they [the French] were, according to their own reckoning, more than 60,000 that drew the sword, when our fighting men did not exceed 6,000." (*Ibid.*, p. 278.)

(2) *Ibid.*—M. Michelet pays the following compliment to the English soldier:—"Le vin ne manquait pas; et avec du vin, le soldat anglais pouvait aller au bout du monde." (*Hist. de France.*)

Henry's unabated confidence is characteristically described in the answer made on the night before the battle to Sir Walter Hungerford, who was regretting that he had not, in addition to the small retinue which he had there, 10,000 of the best English archers, who would be desirous of being with him. Henry rebuked him, and said, that as his hope was in God, he would not, if he could, increase his forces by a single person. (1) Had the Constable of France refused to attack, or waited till necessity drove the English to abandon their position, the result would have been very different: it would seem that, recollecting the disasters of Crecy and Poitiers, he was determined not to commence the attack, but that when the English line approached so near, and the French men-at-arms were annoyed by arrows, their feudal impetuosity could no longer be restrained. But why the Constable, who could have marched away to any point two-thirds of his host, and yet have more than enough for his position, did not dispatch a strong division to make a

(1) This anecdote is recorded by the chaplain, Livius, Elmham, and Hollinshed.—Shakespeare, unlike his usual historical accuracy, puts the words into the mouth of the Earl of Westmoreland, who was not present with the expedition, having been appointed to defend the marches of Scotland:—

"*West.* Oh, that we now had here
But one ten thousand of those men in England,
That do no work to-day!
K. Hen. What's he that wishes so?
My cousin Westmoreland? No, my fair cousin:
If we are marked to die, we are enough
To do our country loss; and if to live,
The fewer men, the greater share of honour.
God's will! I pray thee, wish not one man more."
(Act. iv., sc. 3.)

détour of the woods in which Henry was embosomed, and by which he was saved, and so attack him in his rear, can only be explained by the contempt he must have felt for his enemy, and the certainty that, even if he remained motionless, the King of England must yield to his overwhelming numbers. "To the valour, discipline, and conduct of the English," says Sir H. Nicolas, "no words can do justice; but fortunately no powers of language are required. The event itself is their best eulogy; and when viewed without reference to the situation of their adversaries, and when the comparative numbers alone are considered, their success was scarcely less than miraculous. Without attempting to take one laurel from the brows of the victors, or wishing, even in the slightest degree, to lessen the glory of a triumph which has never been surpassed, it may be said that any army, no matter of what extent, would under precisely similar circumstances be annihilated; that the leaders of the French were alone to blame for the defeat which they sustained at Agincourt, not from any want of bravery after it commenced, but for suffering themselves to be attacked in such a position; and that brilliant as is the event in the English annals, it is no otherwise humiliating to the French, than from the consideration that it arose from the want of military skill in their commanders. He, therefore, who attempts to deduce from that battle proof of superior prowess on the part of the conquerors, or founds on it a reflection on the courage of the vanquished, betrays consummate ignorance of the real merits of the case."

The introduction of fire-arms revolutionised the military system of every European country. The pike and halbert, however, made a stout defence against the intruding arquebus and caliver, and maintained their position for at least two centuries later. Another epoch in military art was the subsequent introduction of field artillery. History is replete with instances of the extreme caution and reluctance with which innovations upon ancient customs, and especially military, were adopted, even when recommended by the probability of improvement; and future historians will doubtless record the same of our times. It is edifying for us to read of the disgust with which the introduction of fire-arms was regarded:—"C'est une honte, qu'un homme de cœur soit exposé a périr par une misérable friquenelle," were the words of the chivalrous Bayard. The Marshal de Montluc is still more emphatic:—"Would to God," said he, "that that accursed instrument (arquebus) had never been invented; I should not now bear the marks of it; and many brave and valiant men would not have been killed by cowards, who would not dare look in the face him whom they stretch on the ground with their wretched bullets."

In the dearth of English information of the period above spoken of, we must look abroad to learn the progress of military science. In the fifteenth century the Swiss were the great regenerators of the art. A poor country with a sparse population, it was destined successfully to withstand and secure its liberties

against the most powerful and warlike states of the Continent; and its infantry became the model for all nations. The Swiss battalions, or squares, were of great depth, and composed of 3,000 to 8,000 men. In order that these might support each other as much as possible, they were generally arranged in three lines in the following manner:—The second line was formed a little in the rear, and to the right of the first, in *échelon*, so as to protect the flank of the latter; the third, destined to act as a reserve, was placed centrally, an arquebus shot or less to the rear of the second. By this arrangement either of the three battalions could advance or retire without disturbing the others. The third line was kept sufficiently distant from the others, so as to be out of range of hostile shot, and, in case of disorder, to prevent it from being overwhelmed by the flight of the others. The men were divided into halberdiers, pikemen, and arquebusiers. The halberds were used in the *mêlée*, the pikes—the first rank kneeling—to resist cavalry, and the arquebusiers were posted on the flanks. This formation combined the advantage of both the phalanx and legion, inasmuch as it possessed the impenetrability of the former, as well as its weight in a charge, and the system of supports and reserve of the latter; but it also retained the immobility of the phalanx, without much of the mobility of the legion, and was ill adapted to intricate operations. The discipline of the Swiss, to which they owed their success as much as to their courage, was very severe; sentence of death

was pronounced against any one who quitted the ranks, and absolute silence was enforced. The headlong and repeated charges of the Austrian and Burgundian chivalry availed little against this calm and solid mass of living valour. (1)

During a great part of the reign of Queen Elizabeth, a company of infantry consisted of about 100 men. The following is the strength of one in the army sent to Ireland, under Essex, in 1598: "A captain, lieutenant, and ensign; two serjeants, one drummer, and one surgeon; with 94 effective private men, and 6 dead pages for non-effectives allowed the captain." (2) The arms were divided in this proportion: In every hundred men were 10 halberdiers, 30 pikemen, 20 archers, 20 musketeers, and 20 arquebusiers, and each man carried, besides his principal weapon, a sword and dagger. Each company had a colour or ensign, and the mode of formation recommended by Sir John Smythe, in 1594, was—the colours in the centre guarded by halberdiers, pikemen in equal proportion on each flank of the halberdiers, then the musketeers, then archers and arquebusiers on each extreme flank to act as skirmishers. (3)

It has already been mentioned that in this reign it became customary to unite a number of companies into one body, called a regiment, which at this period

(1) *History of Infantry*, by H. B. Stuart, Lieut., Bengal Army, p. 60. Quarritch, 1862.

(2) Fynes Moryson's *History of Ireland.*

(3) *Instructions, Observations, and Orders Mylitarie, &c.*

consisted of 500 men, or five companies, each one retaining its own colours.

At the commencement of the seventeenth century, there appeared on the stage of Europe two wonderful professors of the art of war—Maurice, Prince of Orange, and Gustavus Adolphus, King of Sweden—men possessed of as high military talent as the world ever beheld. The life of either was almost one unbroken series of battles, sieges, and victories.

Many Englishmen, of a military turn of mind, finding no scope for their predilection at home, took service under the young Prince Stadtholder, whom Folard pronounced to be the greatest infantry general that had appeared since the time of the Romans, and a "Low-Country officer" became the descriptive designation for an accomplished soldier.

Gustavus Adolphus appeared as a bright spirit, lighting up the darkness of the age. At seventeen he ascended the throne of Sweden, and began his reign by giving peace to his country. His quick perception soon detected the enemies with whom he would have to deal, and he determined to render himself independent of the mere power of fortune. The cause of religious liberty was soon found to be closely identified with national independence, and the consequent Thirty Years' War is one of the most memorable of any recorded in history. The very period at which this great contest falls, tends to augment the interest which it inspires. It stands alone—a separate era—dividing modern times from

the middle ages. All the ancient manners, habits, institutions, and modes of thought, were lost or modified during the war; those that survived re-appear at its close in a more polished form, perhaps, but too often without their former vigour and simplicity.

Great Britain had, for the first time, seen the crowns of the three kingdoms placed on the head of the same prince. But the advantages of this fortunate union, the source of so much future greatness and glory, were not at first perceived; and England, under the reign of Elizabeth, was more powerful, and exercised more influence abroad, than Great Britain under the first kings of the house of Stuart. As a nation, she took no direct part in the Thirty Years' War, but thousands of her sons supported, in arms, the honour of their country; and no laurels gathered in the field were more nobly won than those gained by the British soldiers who followed the fortunes of Gustavus Adolphus.

Gustavus Adolphus.

Endowed with a high and inventive genius, he originated a system of tactics, not only superior to the one then in use, but, in principle, inferior to none that has since been devised. The landing of Gustavus in Germany is the dawn of a new era. By improved science alone could he expect to render his little army equal or superior to the forces of Catholic Germany. The custom of the day was to form infantry into huge masses of mailed pikemen, so flanked and surrounded by musketeers, as to render

their weapons almost useless. Gustavus separated the pikemen from the musketeers, forming small divisions of each, so as to render them more movable and capable of supporting each other, according to the actions of their respective weapons. Pikes were shortened, matchlocks reduced in weight, so as to be able to be fired without a rest, cartridges and pouches were substituted for the clumsy bandoleers, and the men were relieved of the cumbrous part of their armour.

The cavalry were treated in the same way. The equipments were lightened, and the troopers taught to depend more on the sword than on fire-arms. Only a single volley was to be fired by the front rank, and was immediately to be followed by a sword-in-hand charge, at full speed. Gustavus knew how to combine the action of infantry and cavalry, and it is probably a misapprehension to suppose that he mixed up the two arms. He was the first so far to do homage to the fatal power of artillery, as to diminish the ranks of the infantry from twelve to six. Rapidity of attack, and celerity in every movement, were the great objects at which he aimed. The portable leathern guns have already been mentioned.(1) By such means he bewildered the slow and heavily-armed Germans, and out-manœuvred the Imperial generals.(2)

In Gustavus's German campaign of 1632, the British element was in great force. There were in

(1) i. 422, note; ii. 251.
(2) See Colonel Mitchell's *Life of Wallenstein*, 154.

the Swedish service 6 generals, 30 colonels, 51 lieutenant-colonels, and 10,000 men (these were mostly Scotch); a number sufficient to entitle Great Britain to a fair proportion of the honour acquired.(1) The Marquis of Hamilton, whom we have heard of before in these pages as employed by Charles I. against the Covenanters, commanded four regiments composed of English and Scotch; each one consisted of ten companies of 150 men each. Donald Mackay, Lord Reay, was colonel of a Scotch brigade; he was succeeded by Sir John Hepburn.(2) After the fall of Gustavus, the brigade appears to have been taken into the French service, where it became afterwards known as *Le Régiment de Douglas*, being commanded by Lord James Douglas. This corps is supposed to have come over to England at the Restoration, and to have been formed into the 1st Royal Regiment, or Royal Scots. (See Cannon's *Records.*)

It is no wonder that the pupils of such good schools were in great request. The system of the Flemish and Swedish armies was brought over here, and a number of military treatises were published inculcating the principles of these two distinguished masters.

The figures of the motions of the Exercise of the Pike in Grose (ii. 340) are copied from Hexham's *Proceedings of the Art Military, under the command of the Prince of Orange*, 1642.

From one of the *King's Pamphlets*, E. 117, we

(1) See Monro's List.—Harte's *Hist.*, i. 210.
(2) Grant's *Mems. of Sir John Hepburn.*

obtain the strength of each regiment of foot at this date, as follows:—

The Colonel's company	200
The Lieut.-Colonel's	160
The Serjeant-Major's	140
Seven Captains'	700
Total	1,200

This pamphlet is headed "List of the Army raised under the command of his Excellency Robert, Earle of Essex, and Ewe, Viscount Hereford, Lord Ferrers of Chartly, Bourchier and Lovaine, appointed Captaine-Generall of the Army employed for the defence of the Protestant religion, the safety of his Majesty's person and of the Parliament, the preservation of the laws, liberties, and peace of the kingdom, and protection of his Majesty's subjects from violence and oppression."

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APPENDIX.

(*Vol. II., Page* 478.)

The royal standard was captured at the battle of Edgehill, and the standard-bearer, Sir Edward Verney, killed. It was gallantly re-taken by Captain John Smith, who, putting an orange scarf over his shoulder, rode in amidst the enemy, and snatched it from the hand of him who was bearing it, and galloped off with it, and laid it at the feet of his sovereign, who made a banneret of him that same evening. The King afterwards presented him with a gold medal with his profile on the obverse and the royal standard on the reverse, worn with a green ribbon.(1)

Robert Welch, an Irishman, assisted in this exploit, and the following order is registered in the Heralds' College:—

"CHARLES R.

"Our will and pleasure is that you make a medal in gold for our trusty and well-beloved Sir Robert Welch, Knight, with our own figure and that of our dearest sonne Prince Charles. And on the reverse thereof to insculp ye form of our Royal Banner used at ye battail of Edge-hill, where he did us acceptable service, and received the dignity of knighthood from us; and to inscribe about it PER REGALE MANDATUM CAROLI REGIS HOC ASSIGNATUR ROBERTO WELCH MILITI.

"Given at our Court at Oxford this 1st day of June, 1643."

(See *Numismatic Chronicle*, xv. 80.)

(1) Bulstrode, 83.

ERRATA.

Vol. i., p. 67, line 25.—For "seu quum pedes *viet*," read "seu quum pedes *iret*," &c.
Vol. i., Plate 12.—For "Date *circa* A.D. 1100," read "1000."
Vol. i., Plate 13.—For "Date *cir.* A.D. 1000," read "1100."
Vol. i., p. 208, foot-note.—Omit the comma after "Paulin."
Vol. i., p. 467, foot-note.—For "Clarendon, vii. 24," read "Clarendon, B. vii. 211."
Vol. ii., p. 320, line 9.—For "ETVI," read "CELVI."
Vol. ii., Plate 14.—For "William Gordon Watson," read "Henry George Watson."
Vol. ii., Plate 22.—For "1643," read "1693."
Vol. ii., Plate 51.—For "ETVI," read "CELVI."
Vol. ii., p. 348, line 9 from bottom.—For "per B. *Con. Milit.*, 1518," read "per R. Con., *Milit.*, 1578."
Vol. ii., p. 452, line 2.—For "(No. 4,685)" read "(No. 847, fol. 50)."
Vol. ii., p. 576, col. 1, line 5 from bottom.—For "406, 569," read "406, ii. 569."
Vol. ii., p. 578, col. 1, line 24.—For "19" read "79."
Vol. ii., p. 579, last line of col. 2.—After "Camp, 417," add "Royal Archers, ii. 89."
Vol. ii., p. 580, col. 2, line 10 from bottom.—For "19" read "79."
Vol. ii., Plate 46.—For "muzzle caps" read "muzzle cups."

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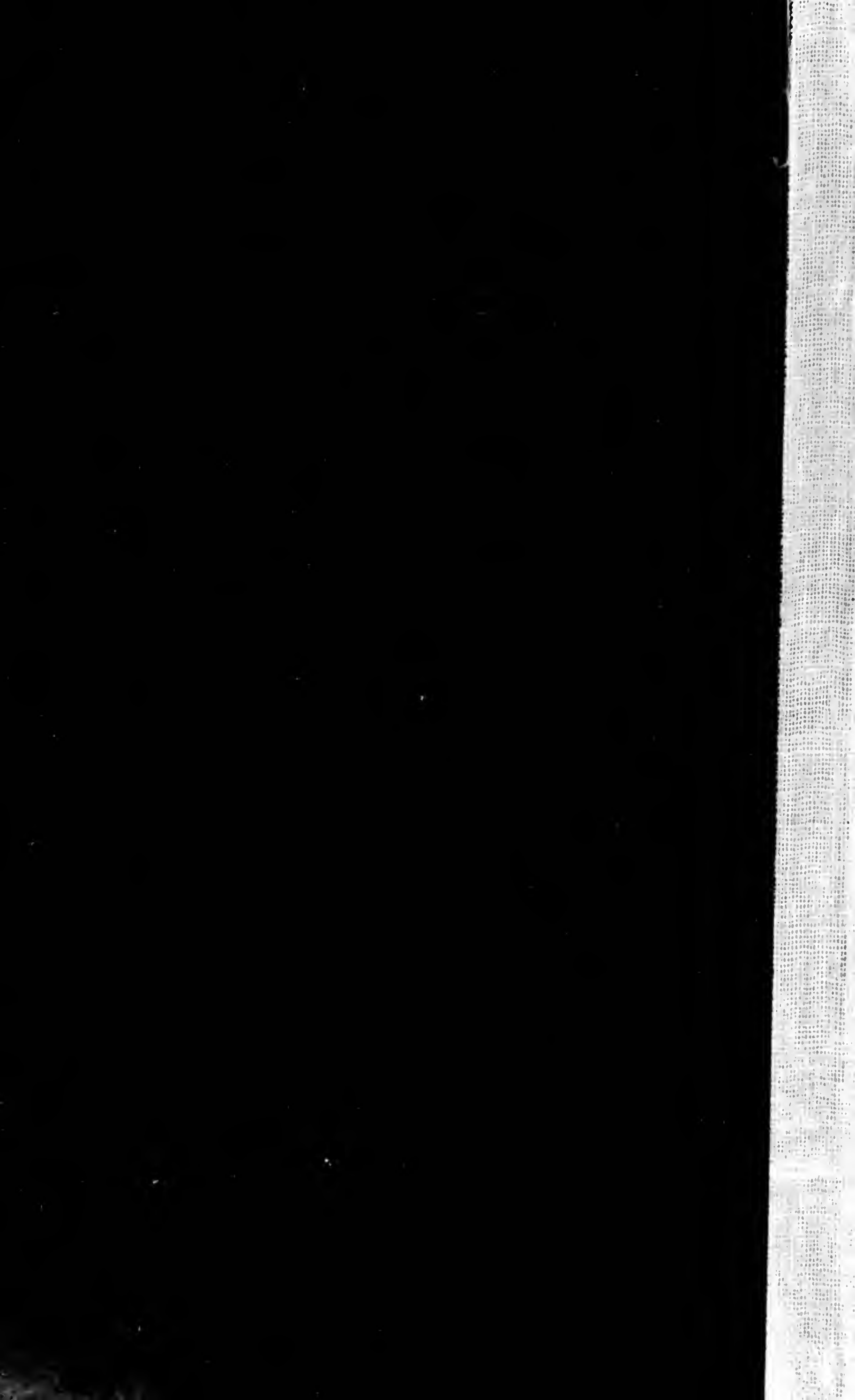

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