Original Documents.

EXTRACTS FROM THE PIPE ROLL OF THE EXCHEQUER, 27 EDW. III. (A.D. 1353), RELATING TO THE EARLY USE OF GUNS AND GUNPOWDER IN THE ENGLISH ARMY.

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In a memoir communicated to the Society of Antiquaries in 1848, and entitled "Proofs of the early use of Gunpowder in England" (Archæologia, vol. xxxii., p. 379), the late Mr. Hunter showed conclusively, from some records in a department of the Exchequer, not only that persons called gunners (gunnarii), and engines of war called guns, were certainly used in the campaign of Cressy, but also that gunpowder was supplied for them. At the present day it seems a work of supererogation to attempt to prove that gunpowder was used for the propulsion of heavy substances, in the place of those machines of various degrees of strength that were worked by torsion and the lever. But it was not so in the fourteenth century. There were then many circumstances which rendered the use of gunpowder, as it has been since applied, almost impossible; and it was not for a considerable period of time that it was considered superior to other means of destruction, even in sieges.

The most probable etymology of the word gun seems to be from mangona, and may in early writings have referred to engines for casting stones by means of slings and weights. So also the word cannon, derived from canna, may have first designated the tube by which the Greek fire was directed. What were called cannon by the French were called

"gonnes" by the English.

In the memoir by Mr. Hunter to which I have referred it was shown that a supply of saltpetre and quick sulphur (sulphur vivum) was included among the munitions of war furnished to the army of Edward III., in 1346, when he commenced the campaign in France, terminated by the capture of Calais, and in which the great battle of Cressy was fought.

No evidence has ever been adduced of the use of guns in English warfare before the expedition of 1346, although there are several notices of their earlier use on the Continent. The documents which furnished Mr. Hunter with his materials describe the circumstances relating to the articles supplied with great particularity, and they certainly do not show beyond dispute that the powder then furnished was an explosive powder. Saltpetre and sulphur alone are mentioned, with the exception of one entry of "pulvis pro ingeniis." This, however, is not said to have been for the guns, and is separated from the entries relating to the ingredients which I have named. It need scarcely be said that without charcoal, saltpetre and sulphur would not make gunpowder, as we now understand it; that is, an

explosive compound powerful enough to propel heavy substances. The objection that it was a weapon which could be used alike by the weak and the strong, and therefore opposed to the true spirit of chivalry, had been urged against the cross-bow, and was soon to be urged with still greater

force against guns.

The difficulty of ascertaining with precision the period of the introduction of engines from which missiles were propelled by means of gunpowder arises chiefly from the circumstance that the term gun was doubtless used to designate some kind of warlike engine, long before the use of gunpowder. Mr. Douce, in a curious note on Kyng Alisaunder, line 3268, where, as he observes, the earliest mention occurs of "gonnes," remarks that it must not be concluded that they were used with gunpowder; they may originally have been engines of the catapult kind. See Weber, Metr. Rom. notes in vol. iii., p. 306. The same observation applies to the passage, where we read that King Aragus, besieged in his castle,—

With gonnes, and grete stones rounde
Were throwen downe to the grounde."

Syr Tryamoure, v. 955.

In the "Avowynge of Kyng Arther" a "gunne" is mentioned, the effect of which is compared to lightning; but still it may be questioned whether the term implies a projectile impelled by any explosive compound, or merely filled therewith;—

----" there came fliand a gunne, And lemet as the leuyn."—Ed. by Mr. Robson, st. 65.

It may be conjectured that the missile here intended was a tube filled with some of the marvellous compounds known as Greek fire, wild-fire, or few volant. The nature and composition of these appliances of ancient warfare, regarded with such dire apprehension, may be found detailed in the treatise Du Feu Gregeois, by MM. Reinaud and Favé, and the essay on the same subject by M. Lalanne. The most complete dissertation, however, on the invention and prototypes of gunpowder and of artillery is to be found in the remarkable work by II. M. the Emperor of the French, entitled

Etudes sur le passe et l'avenir de l'Artillerie.

Before we dismiss the curious subject of investigation to which we have thus briefly adverted, we may invite attention to the curious evidence supplied by an English author, whose writings are contemporary, or nearly so, with the subjoined documents. John Arderne, a skilful surgeon in the time of Edward III., gives us, in his Practica, various directions for compounding "fewes Gregois," and "fewe volant," the latter being a sort of oleaginous mixture with which a pipe 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 as in our own times. His recipe is as follows:—"Pernez j. lib. de soufre vif, de charbones de saux (i. weloghe) ij. lib., de salpetre vj. lib. Si les fetez bien et sotelment moudre sur un piere de marbre, puis bultez le poudre parmy un sotille coverchief. Cest poudre vault à gettere pelotes de fer, ou

de plom, ou dareyne, ove un instrument qe lem appelle gonne." See Sloane MSS. 335, 795.

It may be questioned to what extent, and until how late a period, even subsequently to the invention of gunpowder, any of the compounds designated Greek fire, or wild-fire, were used in European warfare. Certain it is that as late as the siege of Breteuil, ten years after the battle of Cressy, the besieged, as we learn from Froissart, were provided with "canons jetant feu," and it is said "Le feu, qui etoit gregois, se prit au toit de ce beffroy."

To return to the campaign of Cressy. In the previously published documents there is nothing to show the provision of any peculiar kind of missile in connection with the guns,—another doubtful circumstance as to the ex-

plosive character of the powder supplied.

The documents which have been already noticed in the Archæologia (vol. xxxii. p. 380-387) could, however, have been but a small portion of the vouchers relating to the great war which were furnished to the Exchequer. They are full of minute particulars, but do not extend over the whole period. While engaged upon another object of inquiry I have very recently met with entries which seem to furnish a complete but condensed account of the supplies for the campaign of 1346. This compotus does not seem to have been rendered till eight years afterwards, a circumstance which may account for its having hitherto escaped notice. It is entered upon that valuable and complete series of rolls which are the earliest of any known class of public documents, the Pipe Rolls of the Exchequer; and it recites that by virtue of a writ under the Great Seal directed to the barons of the Exchequer, 28 Jan. anno regni 27 (A. D. 1353), Robert de Mildenhale, keeper of the king's wardrobe, had furnished his account of all his receipts and expenses between the 17th Oct. anno regni 18 (A. D. 1344) and 29 Sept. anno regni 25 (A.D. 1351). It gives the summary of the documents first noticed by Mr. Hunter, and of others relating to similar supplies of stores for the king's war in France, the originals of which do not now exist. In these entries I think that we obtain two very important connecting links in the chain of evidence, which appears to have been all but complete. We meet with entries for the repair and supply of arms and munitions of various kinds, "Gunnis cum sagittis et pellotis" included, barrels for packing them; in another place, "Gunnis cum pelotis et pulvere pro eisdem gunnis;" also "x. gunnis cum telar" (guns with tillers or handles); vj. pecie plumbi, v. barelli pulveris, et c. magn' pelot' plumbi pro eisdem gunnis."

It may be noticed also that of the ten guns two were large,—" unde ij. gross'," and after the entry of the saltpetre and sulphur occurs "et alio pulvere pro dictis gunnis," which may have been the complete compound, such as would now be termed gunpowder, or pulverised charcoal, possibly,

for mixing with the other materials.

These entries appear most conclusive that the powder used must have been explosive, and that shot or pellets were discharged by it. In another entry of the stores supplied are "xl. quarter' carbon"—40 quarters of charcoal, the other ingredient required to complete the manufacture of the powder proper. This, however, appears to have been provided for the smiths.

¹ See Mr. Albert Way's notes, in the Promptorium Parvulorun, on the word "Gunne,—Petraria, mangonale, gunna,"

p. 218, and on "Wyvlde fyyr,—Spartus, ignis Pelasyus vel Grecus," p. 527.

I would also, in conclusion, call attention to the word "telar"," which repeatedly occurs in the following accounts, in connection both with crossbows and with guns. This somewhat obscure term has been noticed in a former volume of this Journal, in the Accounts of the Constables of Dover Castle, t. Edw. III., in which are found, amongst armour and arms, "xxiv. arc de corn saunz teilers;" in another account, "xxiv. arcus pro balistis sine tellur." Arch. Journ. vol. xi., p. 385. In connection with the guns, as we find the term in the following document, this word probably signifies stocks of wood to which they were doubtless attached, from a very early period of their use, for convenience in handling them; hence, possibly, we find such appliances of war designated by Monstrelet and by other ancient writers bastons a pouldre, or a feu.

Towards the close of the following documents will be found an extract relating to very different matters, which, however, I have thought of sufficient interest to be placed before our readers. Under the head of the Ornaments of the King's Chapel, amongst vestments, &c., we here find mention of a number of books of diverse romances, delivered by the keeper of the wardrobe, by order of the king, to John de Padbury, to be distributed in the manner directed by the king himself. It is much to be regretted that the subjects of these books of romance are not stated. There is also mention of xxvj. quaterni of various writings, and of four bags containing rolls and memoranda of accounts, remaining with certain books of romance in the

custody of the keeper of the wardrobe.

It should be observed that the following extracts comprise only a small portion of the entry upon the Roll.

Among the Records in the custody of the Master of the Rolls, deposited in the Public Record Office, to wit, Pipe Roll, indorsed—" Mag. Rot. 27 Edw. III.," it is thus contained:—

Compotus Roberti de Mildenhale custodis garderobe Regis infra Turrim London' de receptis, misis et expensis' empcion' et liberat' diversarum rerum per ipsum in officio suo ejusdem garderobe factis per breve Regis et per aliud breve Regis de predicto [magno] sigillo directum Thesaurario et Baronibus hujus scaccarii, datum xxviij. die Januarii anno xxvijmo, per quod Rex mandavit eisdem Thesaurario et Baronibus quod cum eodem Roberto, tam de omnibus pecuniarum summis per ipsum ad receptam scaccarii predicti et alibi a predicto decimo septimo die Octobris, anno xviijo, usque xxixmo diem Septembris, anno xxvto, de prestito receptis, quam de empcione arcuum, sagittarum, cordarum pro arcubus, et omnium aliorum necessariorum per ipsum ad opus Regis provisorum, et liberacione eorundem, necnon de armaturis et omnibus aliis rebus Regis que in custodia ejusdem Roberti in Turri predicta medio tempore extiterunt, una cum aliis custubus et expensis super custodiam premissorum omnium per ipsum factis, computarent, et super compotum suum predictum debitas allocaciones, juxta vim et effectum mandatorum Regis, tam sub privato et secreto sigill' Regis quam sub sigillo de Griffon' i ei directorum, fieri facerent.

Rymer's Fædera, vol. ii. p. 1076, edit. Caley, a document is given from Close Roll 13 Edw. III. 1339—"de litteris sub

¹ We are not aware that any impression of the seal of the griffin, used by Edward III., has been described. In

EXPENSE.

Et in ij. incudibus, ij. paribus suffocalium, viij. martellis grossis et minutis, ij. bicorn', j. grynston cum le wynche, ij. touyrnes,2 mm. libris ferri, xx. garbis asseris, et xl. quarteriis carbonum pro officio et operacionibus fabrorum, xl. lignis vocatis cost' pro balistis inde faciendis, xl. lignis pro telar's balistarum, xij. libris nervorum, xx. libris visci, xx. libris grossi fili, xl. paribus stirop' et clav' pro balistis predictis, l. nockes pro telar', xij. paribus hamorum, firmaculorum, et anulorum pro baudrie', exx. clavis vocatis somernailes pro telar', iiij. libris vernish, j. corio equino, c. cornubus pro dictis balistis, iiijor libris cere et cod',4 c. boces pro telar', iij. peciis balon', ij. patellis eneis pro visco calefaciendo, l. skynons, dc. parvis clavis et takett', vj. paribus passuum de cornu cervorum pro telar', ij. pellibus vocatis hundefhisskynnes, ere pro braeles telar', pergameno pro balistis, et ij. cistis pro officio et opere balistariorum emptis per dictum tempus hujus compotus,-xx. li. xv. s. iiij. d., per breve Regis de sigillo Griffon' datum xº die Junii, anno xixº, per quod Rex mandavit eidem custodi quod de illis xx. li. xiiij. s. per ipsum de Waltero de Wotewange receptis instrumenta pro fabris et balistariis pro passagio Regis ordinata emi, et eadem instrumenta pro fabris Johanni Lyghtfot, et pro balistariis magistro Roberto Lalblast' et Simoni Vernynghowe, per indenturam liberare faceret. quibus instrumentis et rebus prescriptis respondet infra, sicut continetur ibidem Et in defectubus arcuum, balistarum, sagittarum, et quarell' reparandis et emendandis per diversas vices, una cum cera, vernish, cepo, cornubus, nockes, hundfisshskynnes, hamis, cordis, carbonibus, alis aucarum, et aliis diversis rebus pro reparacione predicta, necnon barellis pro armaturis fraiandis, clavis ferri, oleo, furfure, coreo, diversis coloribus pro reparacione et emendacione diversorum armorum, baudric', firmaculis

secreto sigillo Regis, vocato Griffoun, factis, ad scaccarium allocandis," whereby the king directs the treasurer and barons of the Exchequer to recognise "literas de secreto sigillo nostro vocato Griffoun," as of force and effect in regard to deliveries or payments made in virtue thereof by stewards, receivers, or bailiffs, &c., of manors, lands, and tenements, "ad cameram nostram reservatorum." The like will be found repeated in 1341, ibid. p. 1152. We hope to give on some future occasion a full notice of the various privy seals and secreta used by Edward III.

² Probably tewel-irons, or tewels, the technical name for a small iron tube at the back of a forge, through which the wind from the bellows is conveyed to the

3 The telar', as has been observed previously, were probably stocks for crossbows or guns; the term occurs also in another part of this account in connection with the latter; here we find nails, somernails, boces, braeles, with various other things required for the telar, the uses of which we are unable to explain. The nocks to receive the cords of the

crossbow when in a state of tension are likewise described as appertaining to the telar'; the baudric' were probably some portions of the apparatus for bending the bow, which was done by aid of a stirrupshaped iron attached to the end of the stock, as shown in Skelton's Illustrations of the Goodrich Court Armoury, pl. xciv. The hami, hooks, here mentioned with other articles, were for drawing the cord, as shown in the apparatus there figured. "Tiller" properly signified the stock, but sometimes the entire crossbow. Nares gives "Tiller, a steel bow or crossbow." The long handle of a rudder, which bears a certain analogy of form, is likewise called a tiller, and in Suffolk, according to Moor's Glossary, the handle of a farm shovel, &c., is so termed.

⁴ Code is explained in the Promptorium Parvulorum to be cobler's wax. "Code, sowters wex; Coresina." It may have been used for waxing the bowstrings. In a receipt for a good "entreet," or plaster for wounds, in Sloane MS. 100, f. 17, "Spaynisch code" occurs with resin, grease, and other substances.

ferr' pro eisdem, meremio pro telar' balistarum, bordis pro coffris faciendis ad arcus, et doleis ad balistas, sagittas, cordas, et armaturas imponendas et trussandas ad traducendum versus parte(s) Francie pro guerra Regis, simul cum stipendiis diversorum operariorum premissa reparancium, ac eciam batellagio, cariagio, et portagio rerum earundem per diversas vices et diversa tempora, infra predictum tempus hujus compotus,—xxxiij. li. xiij. s. x. d., per predictum breve Regis annotatum supra in titulo hujus compotus, et per aliud breve Regis de predicto sigillo Griffon' datum primo die Februarii, anno xixo, per quod Rex mandavit eidem custodi quod omnes arcus, sagittas, balistas, baudic' (sic) quarell', haucepes, armaturas, gunnis cum sagittis et pellotis, reparare, et coffras (et) dolia pro eis imponendis et trussandis providere et emere, et ea in manibus pro passagio Regis eskippare faceret, sicut continetur ibidem Et in centum minutis ingeniis vocatis Ribald',5 pro passagio Regis versus Normanniam et alias partes transmarinas, faciendis, bordis et alio meremio, rotis, axibus, clavis, lanceis' ferr' ascerat', cordis et aliis minutis necessariis pro eisdem emptis, una cum cariagio dictarum bordarum, rotarum, et aliarum rerum premissarum de diversis locis ubi empta fuerunt et provisa usque predictam Turrim Regis, ac eciam stipendiis carpentariorum ingenia illa faciencium, per diversas vices dicto anno xixo.—cxviij. li. ix. s. iij. d. ob., per breve Regis de predicto sigillo datum primo die Octobris dicto anno xixo., per quod Rex mandavit eidem custodi quod centum Ribald'pro guerra Regi(s) fieri faceret, sicut continetur ibidem. De quibus Ribald'respondet infra. Et in defectubus xxxij. pavillonum Regis majorum et minorum reparandis et emendandis, pannis de Worstede et Card' de Lumbardia, filo diversi coloris, corda grossa et minuta, coreis bovinis tannatis, meremio pro post' et cavill',6 pannis cilicinis, et saccis, ollis, et clavis ferri, et aliis minutis necessariis pro reparacione et emendacione dictorum pavillonum emptis, et in eisdem reparacione et emendacione expensis, preter card', linum, telam, filum et cordam recepta de Johanne Coke, unde respondet infra, una cum vadiis et stipendiis quorundam pavillonariorum et aliorum operariorum circa reparacionem et emendacionem predictas existencium, necnon cariagio eorum pavillonum de predicta Turri Regis London, usque ad pratum extra Bermoundesey ad erigendum et siccandum, et de pratis illis usque predictam Turrim, et aliis minutis expensis circa premissa factis per diversas vices et tempora diversa predicto anno xxmo.,—xxj. li. ij. s. ij. d., per breve Regis de sigillo predicto datum iiij. die Marcii eodem anno, per quod Rex mandavit eidem custodi quod omnes pavillones, arcus, sagittas, balistas, baudric', hausepes, armaturas, gunnis (sic) cum pelotis et pulvere pro eisdem gunnis, et omnes alias res Regis garderobam suam tangentes, tam in custodia ejusdem custodis quam in custodia Thome de Roldeston clerici Regis existentes, pro passagio ipsius Regis ordinatas, reparari et emendari, et pavillones, arcus, sagittas, armaturas, et alias res premissas eskippari et prefato

engines were worked.

Cavilla, or cavile, a peg or pin either of wood or of iron, according to Ducange,

⁵ Ribaudequin, in Latin Ribaudequinus (Ducange), an engine of war, being a little platform sometimes on wheels carrying a powerful bow which threw javelins five or six feet in length with great force. See Roquefort's Glossary, and Felix De Vigne's Vade Mecum du Peintre, vol. ii. pl. A. p. 41. The name has been derived from the Ribauds, the soldiery by whom these

in v.; in French cheville.

7 Haussepied? probably the pied de chevre, or lever for bending the crossbow. See Skelton's Illustrations of the Goodrich Court Armoury, pl. xciv. The word occurs before, written haucepes.

Thome pro predicto passagio Regis liberare faceret, et per quod breve Rex vult quod de vadiis, misis, et expensis aliis circa premissa per ipsum custodem factis, idem custos debitam habeat allocacionem, sicut continetur ibidem. Et in magno ingenio in predicta Turri disjungendo et eodem simul cum aliis ij. ingeniis ibidem tractando usque le Watergate ad iij. shout' 8 ibidem provis' pro ingeniis illis ducendis ad naves Regis in la Pole et apud Grenewych, pro eisdem et aliis rebus infrascriptis ducendis usque Caleis ad Regem provisas, et eciam portagio x. gunn' cum telar', ix. coffrarum cum armaturis, vi. peciarum plumbi, v. barellorum pulveris, et c. magnorum pelot' plumbi pro eisdem gunn' usque dict' shout', iiij. bord' pro j. coffr' ad cavillas predictorum ingeniorum imponendas inde facienda, clavis ferri pro eodem, et ij. cabul' pro dictis ingeniis emptis, una cum conduccione predict' iij. shout', et vadiis et stipendiis carpentariorum et portitorum diversorum circa premissa laborancium, per diversas vicesxiiij. li. iiij. s. xj. d., per breve Regis de privato sigillo datum primo die Septembris predicto anno xxº. per quod Rex mandavit eidem custodi quod omnia ingenia et gunn' cum eorum apparatu in Turri Regis predicta, et alia diversa, scilicet meremium, bord' de Estriche, clavos, cabul', pelles equinos et bovinos, pellot', barellos, et salpetre, et pulver', et omnimodas res alias ad ingenia et gunn' illis (sic) spectantes eskippari et ij. cabul' nav' pro navi Regis vocato la Rodecog', et dolia et coffras pro arcubus, sagittis et cordis trussandis emi, necnon omnes arcus et cordas sagitt' in custodia ipsius custodis existentes trussatos similiter eskippari, et ea omnia Waltero de Westone et Thome de Copham clericis Regis adducenda ad Regem apud Calesiam liberari faceret, sicut continetur ibidem.

ORNAMENTA CAPELLE REGIS.

diversis romanc' ad faciendam inde voluntatem Regis, et modo quo Rex ipsum assignavit per breve Regis de sigillo Griffon' datum xvo die Septembris, anno xixo, per quod Rex mandavit eidem custodi quod ipse x. libros diversarum romanc' prefato Johanni ad faciendum inde voluntatem ipsius Regis, modo quo ipse Rex eundem Johannem assignavit; et Johanni de Lovedale duos libros romanc', Thome de Colleye j. librum romanc', de dono Regis, liberare faceret, sicut continetur ibidem; et Johanni de Lovedale duos libros de romanc', et Thome de Colleye j. librum de romanc', de dono Regis, per idem breve Regis, sicut continetur ibidem. Et remanent iij. superpellicia, v. libri de romanc', xxvj. quaterni de diversis scriptis, et iiij. bag' cum rotulis et memorandis de diversis computibus.

Ingenia et Instrumenta fabrorum et Balistariorum. Idem reddit compotum de ij. ingeniis cum apparatu, x. gunnis cum telar'

⁸ A shoute, a boat, Schuyt in Flemish and Dutch, is a term not uncommonly used by old writers, and in some of the fen districts: a flat-bottomed boat used in duck-shooting is still called a shout. In the compotus of William de Kellesey, Clerk of the Royal Works, 2 Edw. 1. amongst miscellaneous records of the Queen's Remembrancer, are payments for constructing the wooden bridge at Westminster, an engine to drive piles, &c., and

for the hire of a boat—"una navicula vocata shoute." So also we find in Parl. Rolls, vol. iv. p. 345, in the year 1429, mention of "merchaundise carried on the Severn as far as Salop in trowes, botes, cobles, and shutes." The navy in which Richard I. conveyed his army to Palestine is described as consisting of "cogges and dromoundes, many galeye, berges, schoutes, trayeres fele." Richard Coer de Lion, v. 4785.

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, viij. martellis, vj. paribus tenellarum, x. garbis asceris, dc. libris ferri Ispann', ij. paribus suffocalium, ij. bicorn', et ij. touyrnes, simul receptis de predicto Thoma de Hattefeld in garderoba predicta per diversas vices infra dictum tempus lujus compotus, sicut continetur in dicto rotulo de particulis Et missis Regi usque Calesiam, inter alias armaturas et res Regis ibidem missas per Clementem Atte Merke valettum camere sue, ij. ingeniis cum apparatu, x. gunnu (sic) cum telar', quorum ij. gross', v. parvis barellis cum salpetre et sulphure vivo, lxxiij. pellot'plumbi grossis, xxxj. parvis pellot', et vj. peciis plumbi pro gunnis predictis, per duo brevia Regis, quorum j. datum primo die Septembris, et aliud secundo die Septembris, anno xxo, allocatis supra in particula liberacionum armaturarum et indentura predicti Clementis alloc' ibidem de receptis, sicut continetur ibidem. De quibus idem Clemens debet respondere, et respondet infra. Et eq.º

⁹ In printing the foregoing document the contractions have been extended, except in numerous cases where some doubt occurred as to the correct reading. We may remark in particular, as regards the word "gunnis," that it is invariably written thus, or "gunn," with a horizontal line over the last letter; with one exception only "gunnu," with a line over the u. As we find this mode of contrac-

tion elsewhere in the record, as in the expression "iij. shout," with a line over the t, we conclude that "gunnis" is the plural of the English word gun. Mr. Hunter, in a document of the same period, given in the Archæologia, vol. xxxii., p. 386, has printed, "—xxix. gun' ferr',—iij. gunner' ferr', j. gunner' de laton."