XXXIV.—*Proofs of the Early Use of Gunpowder in the English Army.* By JOSEPH HUNTER, F.S.A.

Read March 16th, 1848.

IN the course of the researches which have been instituted at home and abroad into the history of an invention which has had in various ways most extensive influences on the state of society, and in particular on its application to the art of war, reference has been often made to a passage in an old Italian historian, John Villani, in which it is stated that instruments, which can only have been cannon in the ordinary sense of the word, were used by King Edward the Third at the Battle of Cressy. It has not been discovered that the statement receives any support from any of our own historians; and the utmost of the corroboration which it has received from the testimony of our Records amounts only to this, that persons named *gunnarii* occur in an account of the Expenses of the Siege of Calais, which ensued immediately on the Battle of Cressy. This authority was first adduced by Camden (Remains, 4to. 1629, p. 204), and is presumed to be the same with that which is more punctually cited by Sir Henry Spelman (*Glossarium*, voce *Bombarda*) as an account of Military and Civil Expenses of King Edward III. from the 21st of April, in the 18th of his reign, 1344, to the 24th of November, in the 21st, 1347, where, under the head “Artificers and Workmen” to whom payments were made, occur—

Mariners	.	.	.	.	.	.	.	LX.
Armourers	.	.	.	.	.	.	.	VII.
Artillers	.	.	.	.	.	.	.	VI.
Gunners	.	.	.	.	.	.	.	VI.

This is undoubtedly a very strong corroboration of the statement that guns were used, if not at the Battle of Cressy, yet in the expedition of King Edward the Third, of which that battle was the most memorable incident. The artillers might be men who were employed in the use of other warlike machines which went under the general name of artillery; but gunners can hardly be understood, distinguished

as they here are from artillerymen, in any other sense but as persons employed in the management of cannon.

Yet the fact that gunners are found as a class of persons in the English army as early as the year 1346 does not seem to have gained the hold which it deserves on the minds of persons who have made this department of military antiquities the subject of their inquiries, and that by the term gunners we are to understand persons who had the management of instruments of war, the effect of which depended on the explosive quality of the substance called gun-powder : so that I trust I may not be doing an unacceptable service to the inquirers into this subject in bringing before them new and stronger proof from our National Records of the use of gunpowder in the army of King Edward, in the year of the Cressy expedition. We shall see that considerable quantities were made in England for the King's use both before the army left the shores of Britain and while the King lay encamped before Calais.

The dates which require particularly to be observed in reference to this subject are (1), that on July the 1st, in the 20th year of his reign, 1346, the King was at Freshwater, in the Isle of Wight, waiting for a favourable wind to transport his army to France ; that on the 12th he landed at La Hogue in Normandy ; that, after wandering about in that province, committing great devastation and advancing as near to Paris as Poissy, he returned towards the northern coast, and met with the French army in the Forest of Cressy ; that there the great battle was fought, on Saturday, the 26th of August ; that he then advanced upon Calais, where he arrived on the 4th of September, and was engaged in carrying on the siege for the remaining months of that year, and for several of the succeeding year, 1347.

In the period of which we are now 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 the charge of them was called the Clerk or the 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. The office was held at the time of which we are speaking by Thomas de Roldeston ; and this is the person whom we shall find to have been employed in making gunpowder for the King's use a little before and during the expedition.

In a book of accounts of money paid out of the King's chamber in the time of Robert de Burton, receiver of the moneys in the said chamber, from December 25, 18 Edward III. 1344, to the 18th of October, 1347, deposited among the records of the Exchequer, are sundry payments to Roldeston for things provided by him for

the King's use, as "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 facturam pulveris pro ingeniis, et emendatione diversarum armaturarum—XL. sol."—*Pulvis pro ingeniis*, when instruments of war are the subject, can scarcely be any thing but gunpowder: and when we find among the payments that there was money paid to him for a tent which was intended especially for the King's own use, we can hardly doubt, though the account extends over three years, 1344 to 1347, that these payments to Roldeston were made before the departure of the expedition of 1346, and in contemplation of it.

But in this 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. The accountant in this instance is John Cook, the Clerk of the King's Great Wardrobe (which is to be distinguished from the Privy Wardrobe at the Tower), who renders account of moneys received and expended by him from the 22nd of December, 19 Edw. III. 1345, to the 31st of January, 23 Edw. III. 1349. In this account we find the various issues stated with great particularity, and the dates usually given of the King's writs authorising and commanding the payment. Here we find payment made to Thomas de Roldeston for wax used by him in making the King's tent, which was formed of the material called cloth of Reynolds; and the date of the King's writ is the 4th of May, in the twentieth year, 1346, a few weeks before the King actually sailed. In connection with this entry, as immediately following it in the account, we have the following decisive passage:—"Et eidem Thomæ de Roldeston, per manus Willielmi de Stanes, ad opus ipsius Regis pro gunnis suis, IX^cXII. lib. sal petre, et DCCC.LIII^{xx} VI. lib. sulphur vivi, per breve Regis datum x. die Maii, dicto anno xx^o: per quod Rex mandavit prefato custodi quod computaret cum prefato Willielmo de Stanes de sal petra et sulphur vivo per ipsum provisum et de precepto ipsius Regis prefato Thomæ liberata, ad opus ipsius Regis, allocando eidem rationabile precium percellarum quas idem Willielmus per indenturam prefato Thomæ liberavit, per indenturam ipsius Thomæ receptionem ejusdem sal petre et sulphur vivi testificantem, sicut continetur ibidem." "And to the same Thomas de Roldeston, 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], by which the King commanded the said keeper to account with the said William de Stanes for the saltpetre and sulphur provided by him, and by

the King's precept delivered by him to the aforesaid Thomas for the King's use, allowing a reasonable price to the said William for what he delivers to the said Thomas, as is contained in the indenture of Thomas testifying the receipt of the said saltpetre and quick sulphur."

This can leave no doubt in the mind of any one that in the month of May, 1346, 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 by the King's command in preparing a powder, of which the principal if not the sole ingredients were saltpetre and sulphur, to be used in the King's guns.

The whole amount of the two ingredients taken jointly (for there is no mention in these accounts of charcoal) is only 1798 pounds : and this 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 and delivered to the said Roldeston for the King's use for his guns. All that was at that time obtained in pursuance of this command was 750 pounds of saltpetre and 310 pounds of quick sulphur. This is collected from the following entry in the same account of Cook, the Keeper of the Great Wardrobe :—
 "Et eidem Thomæ ad opus Regis pro gunnis suis DCC.L. lib. sal petræ, et CCC.X. lib. sulphur vivi, per breve Regis datum xxv. die Novembris, per quod Rex mandavit prefato custodi quod provideri faceret ad opus Regis totum salte petre et sulphur vivi quod inveniri poterit vendendum, et illud prefato Thomæ liberari faceret per indenturam ipsius Thomæ receptionem ejusdem sal petre et sulphur vivi testificantem, sicut continetur ibidem." This order to buy up all the saltpetre and sulphur that was anywhere to be found is not less remarkable at this early period than is the smallness of the quantity of each which was procured. We may infer from the issuing such an order that the experiment of this new mode of warfare had been in the King's opinion completely successful.

In September in the 21st year, 1347, the King being still at Calais, there was another payment to William de Stanes for saltpetre and sulphur supplied by him to Thomas de Roldeston :—"Et Willielmo Stanes pro M.M.XXI. lib. de salpetra et CCCC.LX.VI. lib. sulphur vivi ab eodem Willielmo ad opus Regis per Thomam de Roldeston Clericum Privatæ Garderobæ Regis emptis C.LX.VII^l. II^s. II^d., precium cujuslibet libræ sal petræ XVIII^d, et sulphur vivi VIII^d." The date of the writ is September 15. Here we obtain the price which the King paid for the ingredients, far beyond, we may believe, the usual price of them.

There is another purchase of saltpetre and sulphur within the period of Cook's

account, 1346, 1347, and 1348, with which it is not necessary to trouble the Society, all the material facts being in proof without it.

No evidence has ever been produced of the use of guns in English warfare before the expedition of 1346 : and neither in accounts, indentures, writs, or inventories of an earlier date which have fallen under my notice do we find any mention of guns or gunpowder, though warlike instruments of various kinds and sometimes with names indicating their formidable and destructive character, are of very frequent occurrence. The campaign of July and August 1346 may therefore be safely assumed to be the time when the explosive force of gunpowder was first brought to bear in the military operations of the English nation. Perhaps it was then also that other nations first became sensible of the power of this new element in the art of war, and began to copy from us. This gives a new interest to that expedition ; and, as it is a point of history to which Englishmen are accustomed to look back, as to a time when the power and grandeur of the nation were signally manifested in the sight of the world, I may be permitted, before proceeding to some other evidence respecting the early use of guns in English warfare, to lay in the briefest manner possible before the Society a journal of the few weeks of the campaign from an unpublished authority. We shall find it more exact and precise than are the accounts of Edward's marches and countermarches in even the most minute of our historians. It is found in the Journal of the King's Kitchen for the period.

The king landed at "Hok," or "Hogges," in Normandy, meaning the port of La Hogue, on Wednesday, the 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 Herbert, and Saint Lo. He then appears to have changed his purpose, and to have directed his march towards Caen, arriving there on Wednesday the 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 second of August, having passed through Treward and Leoperty. He was two days at Lisieux : on the 4th of August he was at Durenville, on the 5th at Limburgh, the 7th at Oil de Boef, and the 8th at Pount Vadreel. The daily stages were now, Longville, Frenose, Appone, Ferelaguillon, and Poissy, where he arrived on the 13th of August. He was then about 12 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 of August. He spent the 22nd and 23rd at Asshen.

We then find him in this humble but authentic chronicle :—

Thursday, August 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 events which had occurred in those days.

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 of September, at Chateauneuf; on the 2nd and 3rd at Vintvill; and on Monday, the 4th of September, he arrived before Calais.

To return to the more immediate subject of this communication. The advantages of this new mode of warfare were never wholly lost sight of from the time of this expedition, though the bow, of old the favourite instrument in English warfare, continued to be the weapon of offence most in use. In the 34th of Edward III., 1360, there were only four guns of copper, and $16\frac{1}{2}$ pounds of gunpowder in the Privy Wardrobe. One of these guns, with many arrows and bows, was taken by Lionel, Earl of Ulster, when he went to Ireland. This might however be but in consequence of the demand for foreign service, since the department of the gunnery in the Tower became of sufficient importance before the 44th year of the King, 1370, to be detached from the office of the Privy Wardrobe, or at least to have an officer of its own under the Keeper of the Wardrobe. An account rendered by this officer of his receipts and expenses, from the first of March in the 44th year, 1370, to the 31st of March in the 48th year, 1374, is annexed as an appendix to this communication.

Calais was in those times scarcely less than the Tower a depot of military stores. William de Redeness was keeper of the King's stores at Calais in 1369, and the two following years; at which time there were in his charge 15 guns, 106 pounds of saltpetre, 260 pounds of quick sulphur, 3 great guns of brass and one of iron, 200 bullets of lead, 1038 pounds of quick sulphur, and 889 pounds of saltpetre in 6 barrels, 84 pounds of gunpowder, and 24 bullets of lead. There is notice also of 6 pounds of sea-coal in connection with sulphur and saltpetre, as if mineral-coal might then be used for charcoal.

In 1379 the Keepers of the Castle of Carisbrook report the purchase of 100 pounds of saltpetre at 15*d.* the pound, and 50 pounds of sulphur at 6*d.* the pound. They bought also a certain quantity of gunpowder, and 2 brass cannons, which cost 6*l.* 6*s.* 8*d.* This was early in the reign of Richard the Second, into which reign it is not proposed further to extend this communication.

It being now established on sufficient evidence that in the year 1346 the explosive property of gunpowder was applied in England for the purposes of war, it becomes a question of some curiosity whether this idea originated in the English mind, or whether we but availed ourselves of a practice which other nations before us had adopted. On this question, having nothing to add to what has been so diligently collected by many other writers, I shall content myself with observing that the traces of any earlier use of the gun by other nations are faint and perhaps uncertain. Munster assigns the first use of gunpowder in war to the year 1350, when it was used in the Danish seas; and all seem to agree that it was not till the wars between the Venetians and the Genoese, about 1380, that the invention became famous among the Italian states. The strongest evidence for an earlier date than 1346 seems to be the passage cited by Du Cange from an account of the Treasurer at War in France of the year 1338. This occurs under the word *Bombarda*, “*Illius ab ann. 1338 in Gallia usum fuisse docet Computum Bartholomæi du Drach Thesaurarii guerrarum istius anni: A Henri de Faumechon pour avoir poudres et autres choses necessaires aux canons, qui estoient devant Puy Guillaume.*” This is eight years earlier than the battle of Cressy. What was the popular and general opinion on the subject at the beginning of the sixteenth century we may collect from the Epitome of the Chronicles by Achilles Pirminius, 12mo. 1538, who says, under the year 1392, *Tormenta bombardarum, hac tempestate à monacho quodam Germanico, inventa primum sunt.* The whole question will no doubt undergo a complete investigation in the work on which Prince Napoleon Louis Bonaparte is engaged, entitled, *Etudes sur le passe et l’avenir de l’Artillerie*, Paris, 4to. 1846. The first volume only has yet appeared, but in it we find a table of contents for the whole work, which leads us to expect in the third volume a critical inquiry into the history of the invention of gunpowder, and its application to purposes of war. I am indebted for my knowledge of this valuable work to Sir Henry Ellis, who possesses one of the very few copies which have yet reached England.

Whether it would be an honour or a dishonour to England to have led the way in the use of these instruments of destruction will probably long continue a point on which different opinions will be held. Honourable it would however be to the inventive genius of our countrymen, and evidence of advanced civilization in England in the 14th century, and we ought not to say peremptorily that it would be dishonourable, when looked at in the aspect in which humanity would place it. The poets and divines seem indeed to have conspired with one accord to represent it as the invention of the demons or men of demoniacal disposition, and

also as the resort of cowardice. Petrarch leads the way. Melancthon refers the invention "Diabolo architecto," and regards guns but as invented "in generis humani perniciem." Then at home we have Spenser, Drayton, and Milton all referring the invention to the detested spirits. Yet there is a higher and perhaps a juster view of the subject, taken by two men not to be named in this society without reverence, Camden and Spelman. Camden defends the invention thus:—"Some there are 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." But Sir Henry Spelman is bolder: and, referring perhaps to that passage of Melancthon, he describes the gun as "*Machina ad stabilienda Humana Imperia, potius quam ad delendum humanum genus (ut nonnulli queruntur) enata:*" and more boldly still,—"*Execrantur pacis invidi hanc machinam: mihi autem semper visa est non sine Dei opt. max. providentia revelata. Utpote quæ novæ universalis monarchiæ spem omnem in futuro tolleret, pacemque tandem universalem orbi induceret.*" This result, however, is rather to be hoped and wished for than expected; but if it must needs be that war and contention shall come, whatever the inventive genius of man can contrive which shall on the whole shorten the duration of the calamity, or mitigate its evils, however on a first view it may appear to bear the stamp of savageness and cruelty, is really a great triumph for humanity.

Particule compoti Johannis de Derby de omnibus receptis expen. et custag. per ipsum fact. pro gunner. R. a primo die Martij anno xliiij^o. usque ultimum diem eiusdem mens. anno xlvij^o.

Rec. denar. { Idem reddet compotum de xxiiij. li. xij. s. v. d. recept. de Johanne de Sleaford clerico private Garderobe Reg. infra Turrim London. per divers. vic. per temp. huius comp.

Summa xxiiij. li. xij. s. v. d.

Empt. divers.
rerum.

{ Idem computat in bagg. de coreo oll. et patell. terr. fagot. salic. talwod. et al. necessar. divers. offic. gunner. tangent. empt. et expend. super factur. pullveris et pil. plumb. pro gunner. necnon cariag. portag. et batell. plumb. barell. cum sulfur et salpetr. et al. rerum predict. de diversis locis usque Turrim London. Quenesburgh. et alibi una cum vadiis divers. operar. operanc. et laboranc. circa pulveres et pil. plumb. predict. faciend. et fundend. infra tempus huius compoti cxvj. s. vj. d. Et in ij. mort. eneis iij. pestell. ferr. xij. coclear. ferr. pro pil. plumb. fundend. x. form. de laton. pro eisdem pil. faciend. j. par. balanc. xxx. barell. parv. cum garnett. hasp. et stapul. pro pil. plumb. inponend. et cus-

todiend. viij. al. barell. maioribus pro pulv. xxx. cerur. parv. pendent. pro predict. xxx. barell. ccxx. lb. salpetr. ij. sars. et xvij. belowes empt. ad diversa precia infra dictum tempus xix. li. viij. s. ij. d.

Summa xxv. li. iiij. s. viij. d. Et habet superplus. xij. s. iij. d.

Rec. divers.
rerum.

Idem r. de ij. mort. eneis. iij. pestell. ferr. xij. coclear. ferr. x. form. de Laton. j. par. balanc. xxx. barell. parv. cum apparatu viij. al. barell. maioribus xxx. cerur. parv. pendent. ccxx. lb. salpetr. ij. sars. et xvij. belowes de emptione ut supra. Et de j. cista flandr. xxix. gunn. ferr. vj. martell. ferr. xxviij. drivels ferr. xxviij. firingyrens ferr. xiiij. patell. ferr. x. par. forcipum ferr. pro form. predict. j. carr. vj. wag. plumb. j. pipa et ij. barell. salpetr. pond. pur. m. liiij. lb. recept. de Johanne de Slefors. Et de j. wag. et vj. clav. plumb. rec. de Willielmo de Slefors. clerico operac. R. apud Westm. Et de j. barell. de sal. gēme cc. lb. salpetr. xij. gunner. de laton. et ij. barell. de sulfur. vyf. pond. Dlxvj. lb. rec. de Helmingo Leget. De quibus

Devastatio
expen. et li-
berac. divers.
rerum.

Idem computat in devastatione et casual. perditione circa operac. pulver. et pil. plumb. et diversis viag. R. infra tempus predict. v. colear. ferr. j. par. balanc. vij. barell. parv. cum apparatu viij. barell. maiora xxx. cerur. j. sars. xj. belowes ccxij. lb. salpetr. ciij^{xx}. lb. sulfur. iij. gunner. ferr. j. gunner. de laton. ij. martell. ferr. xv. drivels ferr. xj. firingyrens iiij. wag. vj. clav. plumb. Et in expens. iij^c.xx. lb. salpetr. et cvij. lb. sulfur. vyf. fact. in pulver. et expend. in predict. viag. et vj. wag. et xxj. clav. plumb. in pil. expen. in eisdem viag.

Et idem computat liberasse predict. Johanni de Slefors ij. mort. enea iij. pestell. ferr. vij. coclear. ferr. x. form. de laton. cum x. par. forcipum ferr. xxiiij. barell. parv. cum garnett. et al. apparatu ferr. j. sars. vij. belowes. j. cistam flandr. xxvj. gunner. ferr. iiij. martell. ferr. xiiij. drivels ferr. xvij. firingyrens xiiij. patell. ferr. j. carr. et xj. clav. plumb. in pil. fact. et ij. parvis peciis plumbi viij^c.vij. lb. salpetr. pur. ij^c.xliij. lb. sulfur. pur. cxxxv. lb. salpetr. et xlix. lb. sulfur. in pulv. fact. et xj. gunner. de laton. et j. barell. de sal. gēme.