

against it, and adjusted it so well that the first shot fell within 12 paces of the enemy's engine, the second fell near the box, and the third struck the shaft and split it in two.

Already in the first half of the 13th century, a French poet (quoted by Weber) looks forward with disgust to the supersession of the feats of chivalry by more mechanical methods of war :—

“Chevaliers sont esperdus,
Cil ont auques leur tens perdus ;
Arbalestier et mineor
Et perrier et engigneur
Seront dorenavant plus chier.”

When Gházán Khan was about to besiege the castle of Damascus in 1300, so much importance was attached to this art that whilst his Engineer, a man of reputation therein, was engaged in preparing the machines, the Governor of the castle offered a reward of 1000 dinars for that personage's head. And one of the garrison was daring enough to enter the Mongol camp, stab the Engineer, and carry back his head into the castle!

Marino Sanudo, about the same time, speaks of the range of these engines with a prophetic sense of the importance of artillery in war :—

“On this subject (length of range) the engineers and experts of the army should employ their very sharpest wits. For if the shot of one army, whether engine-stones or pointed projectiles, have a longer range than the shot of the enemy, rest assured that the side whose artillery hath the longest range will have a vast advantage in action. Plainly, if the Christian shot can take effect on the Pagan forces, whilst the Pagan shot cannot reach the Christian forces, it may be safely asserted that the Christians will continually gain ground from the enemy, or, in other words, they will win the battle.”

The importance of these machines in war, and the efforts made to render them more effective, went on augmenting till the introduction of the still more “villanous saltpetre,” even then, however, coming to no sudden halt. Several of the instances that we have cited of machines of extraordinary power belong to a time when the use of cannon had made some progress. The old engines were employed by Timur; in the wars of the Hussites as late as 1422; and, as we have seen, up to the middle of that century by Mahomed II. They are also distinctly represented on the towers of Aden, in the contemporary print of the escalade in 1514, reproduced in this volume. (Bk. III. ch. xxxvi.)

(*Etudes sur le Passé et l'Avenir de l'Artillerie*, par L. N. Bonaparte, etc., tom. II. ; *Marinus Sanutius*, Bk. II. Pt. 4, ch. xxi. and xxii. ; *Kington's Fred. II.*, II. 488 ; *Froissart*, I. 69, 81, 182 ; *Elliot*, III. 41, etc. ; *Hewitt's Ancient Armour*, I. 350 ; *Pertz, Scriptorum*, XVIII. 420, 751 ; *Q. R.* 135-7 ; *Weber*, III. 103 ; *Hammer*, II. 95.)

NOTE 4.—Very like this is what the Romance of Cœur de Lion tells of the effects of Sir Fulke Doyley's mangonels on the Saracens of *Ebedy* :—

“Sir Fouke brought good engynes
Swylke knew but fewe Sarazynes—
* * *

A prys tour stood ovyr the Gate ;
He bent his engynes and threw thereate
A great stone that harde droff,
That the Tour al to roff
* * *

And slough the folk that therinne stood ;
The other fledde and wer nygh wood,
And sayde it was the devyls dent,” etc.—*Weber*, II. 172.