<page>017v</page>

<image>http://gallica.bnf.fr/ark:/12148/btv1b10500001g/f40.image</image>

<div>

<cont/>

<id>p017r\_1</id>

<ab>The large canon is for great batteries and usually weighs fifty five or 60 <ms>quintal</ms>s. The breech is two cannonball and three quarters each. The mouth is one cannonball and three quarters each. It is thirteen or fourteen <fr><ms>pan</ms>s</fr> in length. But they are very uneasy to drive. The proper battery, to be used rapidly and to have great impact, is a hundred fifty to two hundred <ms>pace</ms>s. It is true that a fair impact can be had from three or four hundred <ms>pace</ms>s, but more <m>powder</m> is needed. Its usual load is 20 <ms>pound</ms>s of <m>powder</m>; its cannonball weighs 40 <ms>pound</ms>s, and 25 <al>horses</al> are required to carry it. When one needs a longer range than the usual one, half a <ms><tl>linstock</tl></ms> of canon <m>powder</m> is added. 80 or a hundred shots can be made with this canon per day, but it needs to be cooled down after each nine or ten shots if the battery is continuously used; if there are some breaks, it is not necessary to refresh it as often. For each <ms>quintal</ms> of <m>copper</m> - or one <ms>quintal</ms> and a half for big cannons - a <ms>quintal</ms> of <m>metal</m> is added. The <m>metal</m> is composed of eight <ms>pound</ms>s of <m>tin</m> for each <ms>quintal</ms> of <m>rosette</m> and even less for big bells for which we use only six <ms>pound</ms>s of fine <m>tin</m> for a <ms>quintal</ms> of <m>rosette</m>, to give it a louder voice. Because the more <m>tin</m> there is, the clearer the sound is. For canon founding, if the material and <m>charcoal</m> is provided as it is usually done because <pro>master</pro>s cannot afford it, it costs 10 to 12 <cn>pound</cn>s per <ms>quintal</ms>. And when the <pro>master</pro> provides everything, you give him 40 <cn>pound</cn>s per <ms>quintal</ms> for big pieces such as cannons, according to the King's ordinance. And 50 <cn>pound</cn>s for smaller pieces. For the more matter there is, the more the <pro>master</pro> makes profit. Another kind of 30 <ms>quintal</ms>'s fowler is founded which is longer than the others, and usually 8 <fr><ms>pan</ms>s</fr> long, which is used to attack fortifications and <fr>cassemattes</fr> by displaying them, at night, in groups on the moat's edge.</ab>

<figure>◯</figure>

<ab>

<margin>left-top</margin>

Each side of the breech's opening is half a cannonball thick, plus a third of a cannonball.</ab>

<ab>We give it two <ms><tl>linstock</tl></ms> of cannon <m>powder</m> for its load, and half a <ms><tl>linstock</tl></ms> of arquebus <m>powder</m> and the same for the others.</ab>

<ab>

<margin>left-middle</margin>

<figure>#</figure>

The alloy of cannons from <pl>France</pl> is made of one <ms>quintal</ms> of metal for two of <m>rosette</m>. But those of <pl>Toulouse</pl> and <pn>Ponce</pn>t put 3 <ms>quintal</ms>s of <m>rosette</m> for one of metal.</ab>

<ab> The <m>rosette</m> used to remelt is better than <m>rosette</m> for cauldrons, for the latter get all dirty.</ab>

<ab>

<margin>left-bottom</margin>

The older pieces are composed of almost as much of each, that is to say a part of <m>rosette</m> and one of metal. This alloy can be recognized with a <tl>burin</tl> because the matter is acid and the part scraped off with the <tl>burin</tl> is yellow and white.</ab>

<cont/>

</div>