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<image>http://gallica.bnf.fr/ark:/12148/btv1b10500001g/f39.image</image>

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<id>p017r\_1</id>

<head>On <pro>cannon-makers</pro></head>

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The cannon <fr>tire de poincte en blanc</fr> five to six hundred <ms>paces</ms>. But not for making battery, for which it is only able to make a good execution of two hundred paces, or three hundred at the most, it should not be any farther. Its ball usually weighs 40 <ms>lb</ms> of the King's standard. There is a fowler, which weighs xxv <ms>quintals</ms>, which is a small, short cannon. It is for fighting the cassemattes des fossés &amp; for close fighting. It bears large cannonballs of 40 <ms>lb</ms> of the King's standard like the others. It bears in the breech only the width of two balls &amp; a quarter of a ball. The front only bears the width of one ball &amp; the a third of a ball. Its load is similar to those bigger, namely xx <ms>lb</ms>. And when one wants to try them, one ought not to overload it, for this damages the piece. And for the first time &amp; until it has been fired five or six shots, it is better not to give its whole load, for the piece is stabilized. And the test that one can do is to give it a load of xx <ms>lb</ms> of fine arquebus <m>powder</m> instead of ordinary cannon <m>powder</m>. And four good <al>horses</al> are sufficient to carry it. They are easy to use &amp; close up they make as much force as the big ones, particularly for private houses &amp; small towns &amp; fortresses of little importance. They are not more prone to bursting than the others because they are short. For that which gives great strength to the <m>powder</m> &amp; endangers the piece of breaking is the length of the piece, because the <m>powder</m> is burned entirely before it goes out, &amp; its energy is held in containment longer in a long piece than a short. The fowler is usually seven to eight <fr><ms>pan</ms></fr>s long. It is true that this is a <ms><fr>pan</fr> of <pl>Montpellier</pl></ms> &amp; not a <ms>pan</ms> of the King's standard, which is not used in casting cannons for making them good. For the <ms><fr>pan</fr> of <pl>Montpellier</pl></ms> being shorter, the cannons proportioned there are shorter also, &amp;compensate in thickness the length that they would have by the <ms><fr>pan</fr> of the King's standard</ms>, by which measure they will be found longer. But also they will be thinner. The strength of the fowler for making battery is 80 <fr><ms>paces</ms></fr>.</ab>

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The great cannon, because of the weight of its ball, carries a range of only a thousand or xii hundred <ms>paces</ms> without landing, &amp; doing good, it usually does iii good.</ab>

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The fowlers do not have a large range if not close.</ab>

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One knows the good alloy of a piece by seeing it. For if, with the energy that they expel into the area around them, they redden, that is to say that they are composed of a sufficient quantity of <m>rosette</m>. If not, they are only of <m>metal</m>, which appears whitish. If they themselves do not make this demonstration, scratch &amp; you will see. </ab>

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The good alloy for pieces is of three <fr><ms>parts</ms></fr> of <m>rosette</m> &amp; one of the fine <m>metal</m> from a big bell, where there is more <m>rosette</m> than in the <m>metal</m> of small bells. The <m>metal</m> usually costs xv <cn>lb</cn> &amp; fine <m>rosette</m> xv or xvi.</ab>

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The <ms><fr>pan</fr></ms> of <pl>Montpellier</pl> is equivalent to six <ms>poulces</ms> of the King's standard, which holds two common. </ab>

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It is necessary, for aiming a piece well, that it be as high at the side of the opening as the breech. Otherwise, one does not aim well.

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