<page>025v</page>

<image>http://gallica.bnf.fr/ark:/12148/btv1b10500001g/f56.item</image>

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<id>p025v\_1</id>

<head>Gunner</head>

<ab>There are three reinforce rings on a cannon, one at the breech, one in the middle, one at the mouth. When founders want to work on their piece or have a cannon or another lighter piece and easier to carry, they make it from the breech ring to the middle one in the same size and proportions as the balls described below. But they taper it more or less one <ms>line</ms> on each side from the middle ring to the mouth ring, always using a compass for their measures from the straight line which they draw in the <fr><tl>modelle en <m>papier</m></tl></fr> whatever pattern. And this reduction is consequently equivalent to seven or eight <ms>quintals</ms> less. And this does not make the piece less secure. This is done for big pieces, but for pieces smaller than the moyen, one has to keep the aforesaid proportion and make the piece in one straight line from one end to the other. Usually the trunnions are commonly situated one foot away from the middle ring in the direction of the breech.

But because some gunners prefer a piece heavier at the front for it is easier to adjust and for that purpose, it is sufficient to place the trunnions closer to the breech and further away from the middle. On the contrary if you want to make it heavier at the bottom, you will place the trunnions

closer to the middle of the piece or forward in direction of the mouth. When you bore your piece make a fluted cast <m>iron</m> box like a bed post and and there must be sixteen flutes or notches in which you will fix sixteen well-even blades, so altogether they will cut and scrape similarly. Because should some not cut or scrape, there would be some waves and spaces in the cannon that would make it ribbed and there would danger that the piece might break in its middle. In order to avoid this the bore has to go evenly from the breech to the mouth and the piece's mouth must be evenly hard so the <m>powder</m> will be released at once with more strength. On the contrary, if it is blocked it goes sideways and makes the piece break.</ab></div>