<page>021v</page>

<image>http://gallica.bnf.fr/ark:/12148/btv1b10500001g/f48.image</image>

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<id>p021r\_2</id>

<ab>Others place two poles<comment>c\_021r\_01</comment> fixed well into the earth such that one is <del>equally</del> as far from the edge <del>and</del> <add>of the</add> muzzle of the cannon as the other. And underneath they place the above-mentioned <tl>ruler</tl>.<comment>c\_021v\_01</comment> Then when want to shoot at night, they push their cannon straight towards the above-mentioned ruler &amp; make it so that the edge of the mouth rests on the end of the aforesaid ruler. Next, they measure with a ruler or similar thing cut to measure, from one pole to the side of the cannon &amp; if it is too close or too far from it, they adjust it &amp; do thus from the side of the other pole.</ab></div>

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<id>p021v\_1</id>

<head>For unspiking a cannon</head>

<ab>Some say that one should remove the ball if the cannon is loaded &amp; give fire through the mouth of the cannon. But it is to be believed that the fire would sooner exit that way than going to seek its exit through its usual touch-hole<comment>c\_021v\_02</comment> which is spiked &amp; constrained. The most reliable way is that the <pro>gunner</pro>, who is often a <pro>founder</pro>, wedges &amp; thoroughly rivets the <m>nail</m> that the enemies placed, and with a <tl>trepan</tl> makes <del>at the side</del> another touch-hole next to the one which has been spiked, which will be done in an hour. And if with time the violence of the <m>powder</m> loosens the <m>nail</m> with which the piece is spiked, you will make a thread in the second touch-hole &amp; place a <m>screw</m> in it quite perfectly which will never come undone.<del><fr>M</fr></del></ab></div>

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<id>p021v\_2</id>

<head>Defense of a town</head>

<ab>There is nothing that has a greater effect for the defense of a breach than petards placed at the entryway at the time of the assault. They carry a lot of ammunition. <del><fr>be</fr></del> One fills them with <m>cart nails</m>, <m>big steel dice</m>, bits of <m>chain</m> &amp; similar things. And when one senses that the enemies are close, one sets fire to all. Grenades, too, well-made and aptly thrown, cause great damage. And to make them worse, one puts roughly <del>pestling</del> pestled <m>glass</m> either in the molds or in the crucible, when one wants to cast them. This worsens the wounds. The grenades ought not to be too brittle. But it is good that they be somewhat alloyed with the substance of the pieces in order that, holding the blast a little rather than breaking, they have more violence.</ab></div>