<page>023r</page>

<image>http://gallica.bnf.fr/ark:/12148/btv1b10500001g/f51.image</image>

<div>

<id>p023r\_1</id>

<ab>A petard is made so that it weighs three <ms>quintals</ms> and carries a cannonball flat on the side from which it must exit and round on the side of the cannon, as if it was a cannonball cut in half. It is two pans long. It has to be loaded with xxv <ms>lb</ms> of powder because it has to be full to the mouth &amp; has to burst. Its bottom is not thicker than the mouth &amp; is made of one single piece. Its substance has to be better than that other artillery piece, and for 4 <ms>quintals</ms> of fine <m>copper</m> there must only be one quintal of <m>metal</m> so that it absorbs the shock, and so that, when fired with more force, it is more efficient. It has to be used against a door with a <tl>large <m>iron</m> cross</tl> before the ball, and once loaded, needs to be covered with a firmly sewed rough <m>canvas</m> which should be completely smeared with <m>turpentine</m>. Four handles need to be added to it while it is cast, it <corr>is</corr> thus easier to place. The <m>iron</m> cross is fixed to the mouth with the <m>canvas</m> covering it. The handles have to be held at its muzzle's edge, as you can see. To place it, you need three or four <m>iron</m> <tl>pegs</tl> of one <fr><ms>pan</ms></fr> long &amp; as thick as a <ms><bp>finger</bp></ms>, which have their point like a <tl>gimlet</tl>, &amp; the entire leg in the shape of a screw like an auger, and a ring on the other end to turn them with a short <tl>stick</tl> that fits into the <tl>ring</tl>. And the <tl>pegs</tl> are fixed on the door, not straight, for they would not have any strength, but crooked as if you wanted to fix them towards the middle of the <m>petard</m>, and to that effect, the hole of the handles needs to be quite large. In that way, the shooting <m>petard</m> pushes the <tl>pegs</tl> forward and sideways into the door, and makes more fracture. Once it is placed, it is necessary to have <fr>saucisse de <m>buckram</m></fr> @ made in this manner: take eight or nine <fr><ms>canes</ms></fr> of <fr><m>buckram</m></fr> strip or more if the ditch is larger, and make the strip four or five <ms><bp>fingers</bp></ms> wide. Have it well sewn in such a way so that it is like a bowel where a <tl>stick</tl> as thick as a <ms><bp>finger</bp></ms> could fit. Fill it completely with good</ab>

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<ab>

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This one is to be put below an undermined tower with its muzzle towards the top. One casts two large <m>iron</m> <tl>rings</tl> &amp; with a <tl>stick</tl> or two, four men carry it. They are also used for placing within wall breaches but just half a charge is necessary, that is x <ms>lb</ms>, &amp; fill it with some <m>pebbles</m> &amp; <m>cart pebbles</m></ab>.

<figure>

<id>fig\_p023r\_1</id>

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<link><https://drive.google.com/open?id=0B9-oNrvWdlO5RzRNM284T3Q0eTQ></link>

</figure>

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It is necessary to cover it entirely with a <m>waxed</m> <m>canvas</m> &amp; rubbed with <m>turpentine</m> and other <m>combustible things</m>. This cover is made to ensure that the ball does not fall and in order that when the cover is given fire, the <m>primer powder</m> does not fail. At the top of the touch-hole, it will be necessary to put in a good quantity of <m>primer powder</m>. Some put on the ball a cross of <m>iron</m> which is longer than the mouth of the <m>mortar</m> by two <fr><ms>pans</ms></fr>. Others only put the ball.</ab>

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