<page>125r</page>

<image><http://gallica.bnf.fr/ark:/12148/btv1b10500001g/f255.item.r></image>

<div>

<cont/>

<id>p124v\_3</id>

<ab>&amp; from these conduits &amp; <fr>abrevouers</fr>, you can also put there small threads of <m>wax</m>, which are joined to the body, in order that the <m>metal</m> goes more easily from one part to another &amp; runs quickly everywhere. And from these conduits, you lead your gates &amp; your vents without spoiling anything.</ab>

<ab>

<cont/>  
<margin>left-top</margin>  
<figure>

<id>fig\_p125r\_1</id>

<link><https://drive.google.com/open?id=0B9-oNrvWdlO5ZHJJRXJlU2RFZlk></link>

</figure>  
With small rolls, you make your gates and vents without danger of crusting &amp; removing anything from the mold, because the wax, being taken away, leaves the empty space all made. Make your vents coming from the head, which is in the bottom, towards the cast. Make also your gate so that it is <del>too</del> but little thick, and makes within its course two or three notches, for this corrupts fury of the<m>metal</m> and makes it flow with ease, without bubbling nor making too much smoke, which hinders its run. You can divide it also in two or three branches thus

<figure>

<id>fig\_p125r\_2</id>

<link><https://drive.google.com/open?id=0B9-oNrvWdlO5bDlqQzJZemktSFk></link>

</figure>

when it approaches the molded thing, and make always holes in the gate,</ab>

<figure>+</figure>

</div>  
<div>  
<id>p125r\_a1</id>  
<head><m>Plaster</m></head>

<ab>When you <del>v</del> mold something to cast <m>wax</m> in it, you mold in plaster alone, reheated after having been pulverized. For, once reheated in <m>stone</m>, the outside is cooked, and the inside stays almost raw. Transparent grey <m>plaster</m> is not strong, but a good one, is one, that, once wet, is white &amp; sets very quickly. Nevertheless I have found the grey <x><m>plaster</m></x> to be quite firm and hard after it has set, but it takes longer <x>to work with it</x>. Know the nature of each. You will never mold very neatly if you do not soak until it is quite clear and liquid, your <m>plaster</m> or the core's <m>sand</m>. Soak it straight away after it has been reheated.</ab>

<ab>  
<margin>left-middle</margin>  
However, if you mold with <m>plaster</m> that has been reheated once as said, coat the first mold well with <m>oil</m>. And when the second cast has set and you have prepared it, soak it in <m>water</m> for a long time. And if it does not release, soak it in hot <m>water</m>, because cold <m>water</m> hardens it.</ab>

<ab><x>Something</x> to know</ab>

<ab>And hot <m>water</m> softens it <x><m>plaster</m></x> more than cold <m>water</m> <x>which</x> does not penetrate it <x><m>plaster</m></x> as <x>it does</x> <m>mixed</m> <m>plaster</m> because it <x><m>plaster</m></x> is stronger and <m>mixed plaster</m> is spongier. <m>Medal</m>s are cast from this <m>powder</m>ed, reheated <m>plaster</m>, <x>and the <m>medal</m>s</x> will be waterproof as though they were <m>varnish</m>ed. In Germany, people hang these <m>medal</m>s on houses. See to it that the <m>water</m> is very hot, and if the <m>water</m> is boiling, it will not endanger <x>it</x>. All molds <x>made</x> of plaster only or molds <x>made of</x> <m>mixed</m> <m>plaster</m> are stripped from it.</ab>

</div>  
<div>  
<id>p125r\_a2</id>  
<head>Scimitars</head>

<ab><pro>Workers</pro> from Damascus or from Hungary, neighbors to the Turks, separate <m>iron</m> from the <m>mine</m>s with <m>steel</m>. And they cast the blades of the scimitar in <m>sand</m> with this first <m>steel</m> <x>that was</x> first casted from its <m>mine</m>. Afterwards, they <x>the blades</x> cut other <m>iron</m> without without great difficulty because all melted <m>iron</m> is harder than soft <m>iron</m> beaten into <x>...</x> and bars. Thus is the <m>steel</m> of scimitars, but it is quite brittle. When someone takes the haft of a scimitar off, that person recognizes <x>it</x> well by the tip in the haft which is cast in <m>sand</m>.</ab>

</div>  
<div>  
<id>p125r\_a3</id>  
<head>Hearing from afar</head>

<ab>Make a small hole into the ground, put your ear against it during the night or during an equally quiet time, and you will easily hear the muffled sound.</ab>

</div>  
<div>  
<id>p125r\_a4</id>  
<head>Secret</head>

</div>