<page>139r</page>

<image><http://gallica.bnf.fr/ark:/12148/btv1b10500001g/f283.image></image>

<div>  
<id>p139r\_1</id>  
<head>Casts of <m>lead</m> and <m>tin</m></head>

<ab>  
<add>When it is often melted, it becomes brittle &amp; <del>fl</del> frangible, because it is cast very hot &amp; renders it half calcined. Therefore, use new ones. </add></ab>

<ab>The alloy that I have put in use for lizards &amp; snakes is two <ms>℥</ms> of fine tin for one <ms>lb</ms> of new &amp; unadulterated lead. The mold is made of the above said sand, common to all metals, when it is reheated let it cool until you can hold your finger without harm in the hole of the gate. As for lead, one melts it in a crucible <del>ju</del> in the fire, with bellows, until the crucible &amp; the lead are red. When it is in this state, purge it again of charcoal, either with a scraper made for this purpose or with the wind of a little bellows. <del>l</del> This done, let it rest thusly red &amp; reheat a little on its own, then throw in, if you want, a little resin, to burn the filth. However some find it better not to put any in, because it leaves filth. But, when they are ready to cast, they ought not to forget to throw inside as well, as big a bean of looking-glass tin for each <ms>lb</ms> of lead, and that it <del>e</del> should be red like melted metal when it enters in the mold. And if the mold is big, it is better to put it in a press, in order that it joins well &amp; that the lead does not spread at all outside the mold. However, should this happen &amp; that for the first or second or third time your mold were not full, cast boldly, for, provided that your metal is red, it will set again &amp; join with the other, and come out very neat, like the principal one. The same can be said for fine tin for thin things. And the alloy of fine tin is one <ms>℥</ms> of new lead for one <ms>lb</ms> of this. Large molds should be placed in very tight presses, between two sheets of copper <del>pu</del> &amp; then bury them in the sand, which is better than ash, because <del>i</del><del>l est</del> by its weight it seals better. Otherwise these large molds are subject to opening slightly by the weight of the metal. Some make square pots</ab>

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When the medal is thick, one is not bound to casting as hot as when it is thin.</ab>

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Note that if you want to cast with <m>cuttlefish bone</m>, they ought not be very hot, because they will burn the <m>cuttlefish bone</m>. Test for this effect with paper. If it reddens the paper, it is enough, it is good to cast, but if it blackens the paper, it is too hot.</ab>

<ab>  
<margin>left-bottom</margin>  
@If you want to cast a written paper, make your alloy with <del>plom</del> half lead &amp; half tin &amp; as soon as it is melted, cast between two <fr>carton</fr>, in a very flat &amp; level place &amp; with a point of gold or hard wood, etch on the left the writing that you want. And having poured lead on a <fr>carton</fr>, press on top with the other adapted <fr>carton</fr>.</ab>

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