<page>082v</page>

<image>http://gallica.bnf.fr/ark:/12148/btv1b9059316c/f170.item</image>

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<id>p082v\_1</id>

<head><pro>Watchmakers</pro></head>

<ab>In the past, they tempered their springs by dipping them into <m>molten lead</m>. But today they temper their springs straight, &amp; bend them once tempered, which is a beautiful secret.</ab>

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<id>p082v\_2</id>

<head>Casting <m>lead</m> in <m>lead</m></head>

<ab>There are some who make their cavities with thick <m>lead</m>, then cast <m>lead</m> in them.<lb/>

<m>Lead</m> when not cast hot enough, is white, &amp; blacker when cast well hot.</ab>

<ab>

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One can make a <tl><m>lead</m> mold</tl>. &amp; to cast in it, fumigate it with <m>candle soot</m>. But it is never that neat.</ab>

<ab>

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Never does <m>Lead</m> come so neat as <m>tin</m>.</ab>

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<id>p082v\_3</id>

<head>Sand</head>

<ab>If it is too fat, one ought to reheat it and sieve it again.</ab>

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<id>p082v\_4</id>

<head>Ways of casting in <m>bronze</m></head>

<ab><m>Latten of <fr>potin</fr></m> <del><fr>cor</fr></del>, which is the most brittle, molds more neatly, according to the opinion of many people, than <m>fine latten of skillets</m>, just like all <m>fine latten</m> molds neater than <m>red copper</m>. If you want to cast something fine &amp; thin, the entire secret is to cast as hot as possible so that the substance boils. You will recognize that it is hot enough when it smokes a lot and while stirring it throws sparks. To heat well, place your <tl>crucible</tl> as low as possible &amp; at the very bottom of the <tl>forge</tl>, so that the <tl>bellows</tl> <del><fr>fra</fr></del> beat on the middle of the <tl>crucible</tl>, for in this way it is better than on the <tl>grill</tl> on which one usually puts the <tl>crucible</tl>, under which the <tl>bellows</tl> beat. It is true that the <tl>crucible</tl> risks more danger breaking, but you can <m>lute</m> it as you know <pro>founders</pro> do. And also, one ought to maintain the <m>charcoal</m> between the <tl>bellows</tl> &amp; the <tl>crucible</tl>. Also take heed to cast all at once &amp; not in increments &amp; drop by drop, which would stop &amp; plug up the conduit of the substance. And if make in the cast an <fr>abreveoir</fr> to <fr>abreuver</fr> the medal, it would be even better. And so that the substance heats well at the bottom, stir it, once melted, with a <tl><m>wood</m> stick</tl>, for <m>iron</m> only makes it brittle. Turn.</ab>

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Some put <m>wool stuffing</m> in order to heat it &amp; make it run.</ab>

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Put under your <tl>crucible</tl>, one large <tl><m>iron</m> <fr>platte</fr></tl>, which will redden &amp; will maintain the heat under your <tl>crucible</tl>.</ab>

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The <m>copper</m> substance is found to be good for casting, when once broken it makes the grain long &amp; not short, for it demonstrates that it is soft. It is <ms>half</ms> <m>fine latten</m> &amp; <ms>half</ms> <m>red copper</m>. This long grain is called long stalk.</ab>

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