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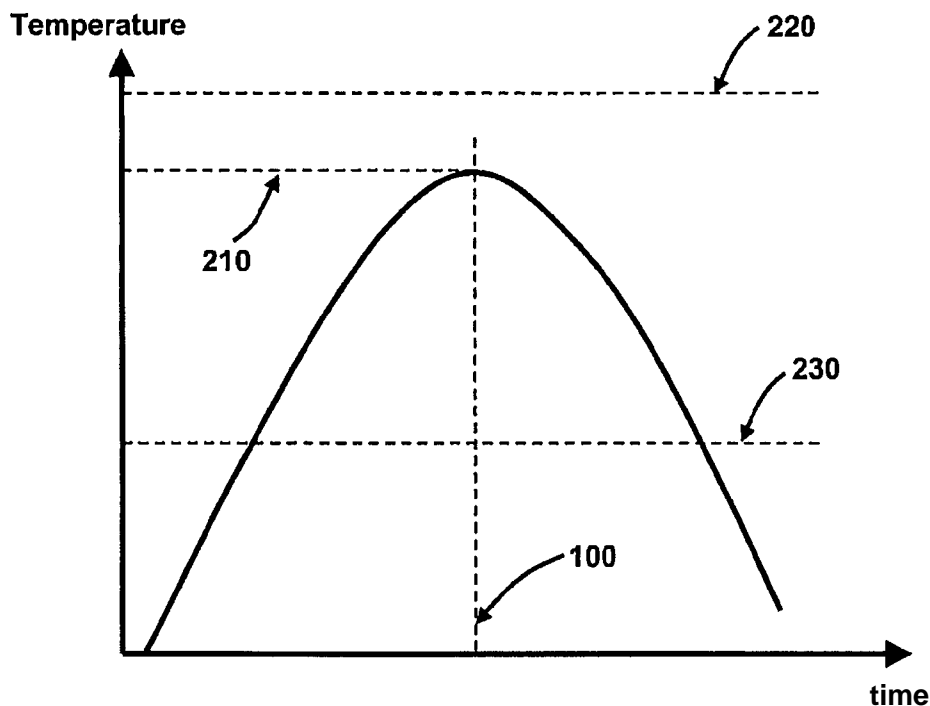
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(54) Title: **FLASH TEMPERING PROCESS AND APPARATUS**



(57) Abstract: A method for tempering a workpiece is provided. The method includes providing a ferrous alloy workpiece having a martensite and/or bainite phase therein, heating at least a portion of the workpiece to a preselected temperature and then cooling the workpiece to a lower temperature. The preselected temperature is below the austensizing temperature of the alloy and the heating is accomplished in no more than 60 seconds. One embodiment of the present invention heats the workpiece using resistance heating.

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