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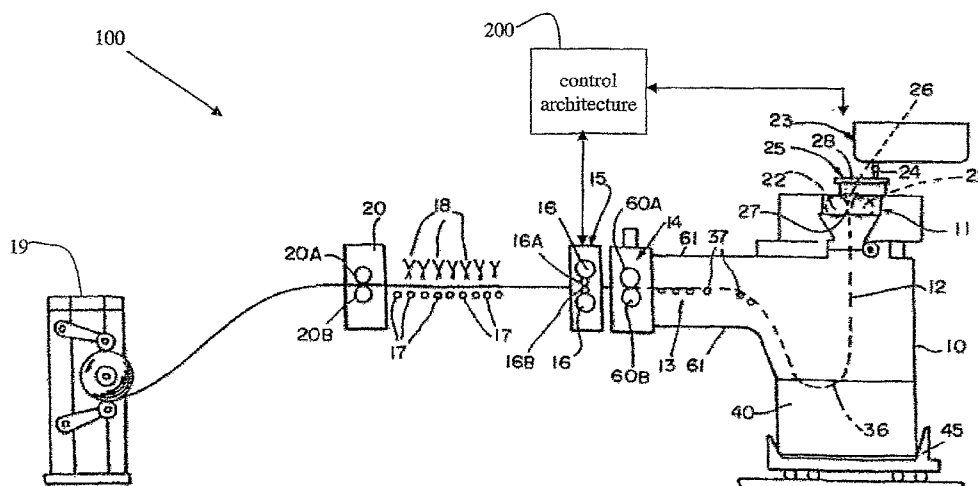
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[Continued on next page]

(54) Title: METHOD AND PLANT FOR INTEGRATED MONITORING AND CONTROL OF STRIP FLATNESS AND STRIP PROFILE



(57) Abstract: Apparatus and method of controlling strip geometry in a casting plant having a rolling mill. A target thickness profile is calculated as a function of the measured entry thickness profile of the strip while satisfying profile and flatness operating requirements. A differential strain feedback from longitudinal strain in the strip is calculated by a control system by comparing the exit thickness profile with the target thickness profile, and a control signal is generated to control a device capable of affecting the geometry of the strip processed by the hot rolling mill. A feed-forward control reference and/or sensitivity vector may also be calculated as a function of the target thickness profile, and used in generating the control signal sent to the control device. The control device may be selected from one or more of the group consisting of a bending controller, gap controller and coolant controller.

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