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(54) Title: EXPANDABLE HEATER

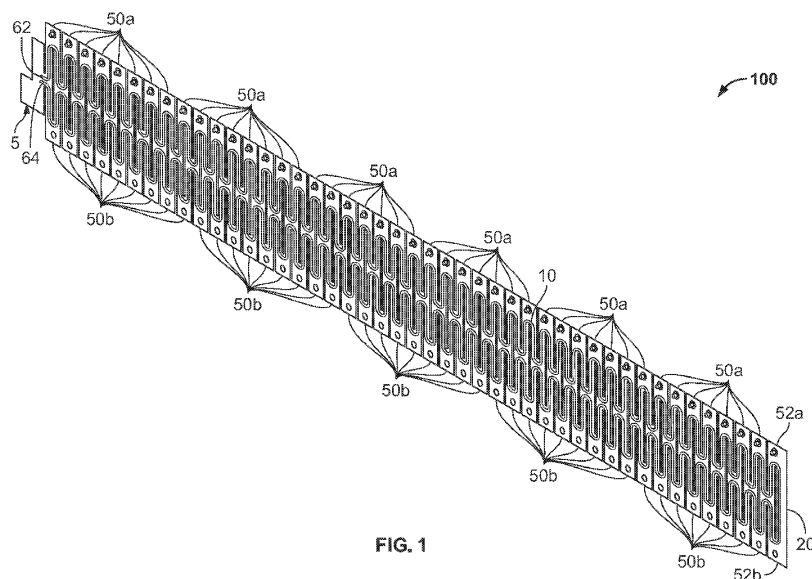


FIG. 1

(57) Abstract: An electric heating element system for heating a pipe is disclosed, having an electrically resistive heating element configured for connection to an electric power source and an approximately rectangular-shaped substrate comprising a length. The substrate includes a first row of slots transverse to the length, a second row of slots transverse to the length and laterally aligned with the first row of slots, a third row of slots transverse to the length and alternatingly positioned along the length relative to the slots in the first and second rows, and a first row of fastener ends and a second row of fastener ends defined by the first row of slots and the second row of slots, respectively. Each of the first and second rows of fastener ends are configured to secure the substrate to the pipe. The substrate's length is adjustable for installation on the pipe.

[Continued on next page]

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