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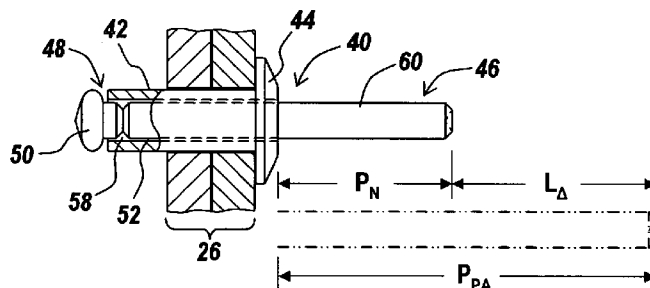


Fig. 3

(57) Abstract: A blind rivet design has an exposed mandrel portion modified from the conventional and standardized mandrel to reduce amount and cost of materials required to produce the mandrel, while also minimizing costs related to production, use, and spent mandrel disposal, all while still making use of conventional riveting tools for rivet setting and maintaining rivet performance. To work with the inventive blind rivet design, a conventional riveting tool, i.e., a rivet gun with a replaceable nosepiece, may be utilized, with a modified nose housing attached. The replaceable nosepiece and modified nose housing on the conventional rivet setting tool enables use of a mandrel having a reduced exposed mandrel portion relative to conventional and standardized mandrels. In addition, a modified stepped approach to setting the rivet may also be utilized in conjunction with the inventive rivet design to enable use of an even further reduced exposed mandrel portion.

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