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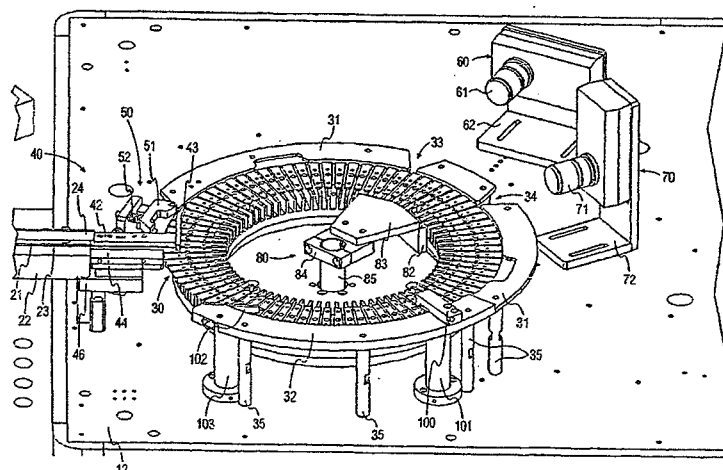
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(54) Title: FASTENER INSPECTION SYSTEM



(57) Abstract: A high-speed fastener inspection system is provided to perform 100 percent inspection of various geometry features and to sort a large number of fasteners at high speed. The inspection system includes a rotary table (30) having an outer periphery, an inner periphery, and a plurality of radial slots extending from the outer periphery to the inner periphery. When a fastener is placed in a radial slot with the head of the fastener facing upward and the shank extending into the slot, the side view of each fastener is unobstructed. A loading mechanism (40), an anti-jam mechanism (50) and a sorting mechanism (100) are arranged along the outer periphery of the rotary table (30). At least one vision inspection camera (60, 70) is provided for capturing the image of each fastener after each fastener is placed in a radial slot. An image analyser is operatively connected to the vision inspection camera (60, 70) for analysing the captured image and to determine whether the fastener is defective. Once the defective fastener has been identified by the image analyser, the sorting mechanism (100) is actuated to remove the defective fastener from the rotary table (30).



For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.