

(19) **United States**(12) **Patent Application Publication** (10) **Pub. No.: US 2004/0084988 A1****Sheeran et al.**(43) **Pub. Date:****May 6, 2004**(54) **SEGMENTED STATOR WITH IMPROVED
HANDLING AND WINDING
CHARACTERISTICS AND METHOD OF
WINDING THE SAME****Publication Classification**(51) **Int. Cl.⁷** **H02K 1/18; H02K 1/28**
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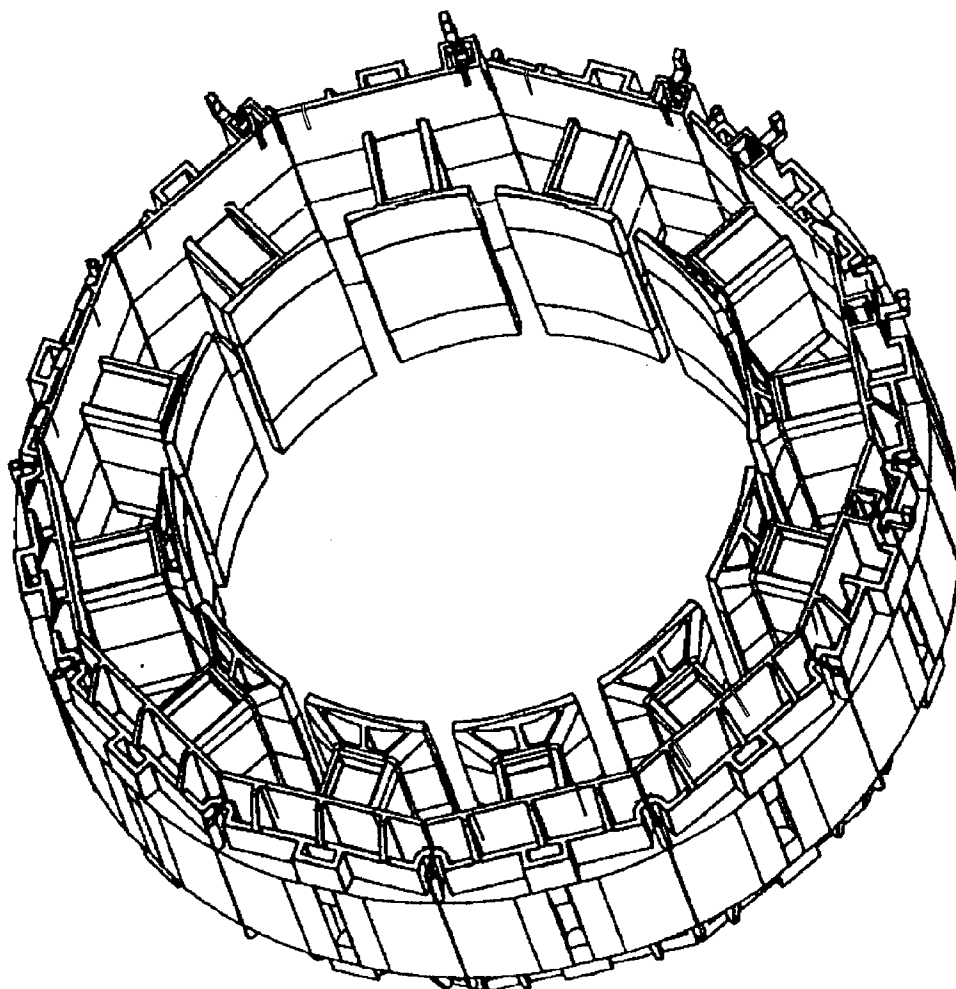
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Houston, TX 77057-2198 (US)(21) **Appl. No.:** **10/427,450**(22) **Filed:** **Apr. 30, 2003****Related U.S. Application Data**(60) **Provisional application No. 60/422,676, filed on Oct.**
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(57)

ABSTRACT

A stator assembly that may be rounded into an annular form is disclosed that includes a plurality of stator segments where each stator segment defines a yoke portion and a stator tooth and a containment structure configured to position the stator segments relative to one another such that the stator segments do not physically touch one another and such that no magnetic circuit between adjacent stator segments is formed. Also disclosed is a method for forming a segmented stator, involving the steps of positioning a plurality of stator segment in a containment structure such that no magnetic circuit between adjacent stator segments is formed, forming a winding coil about at least some of the stator segments; and deforming the containment structure to form an annular stator and to establish a magnetic circuit between adjacent stator segments.



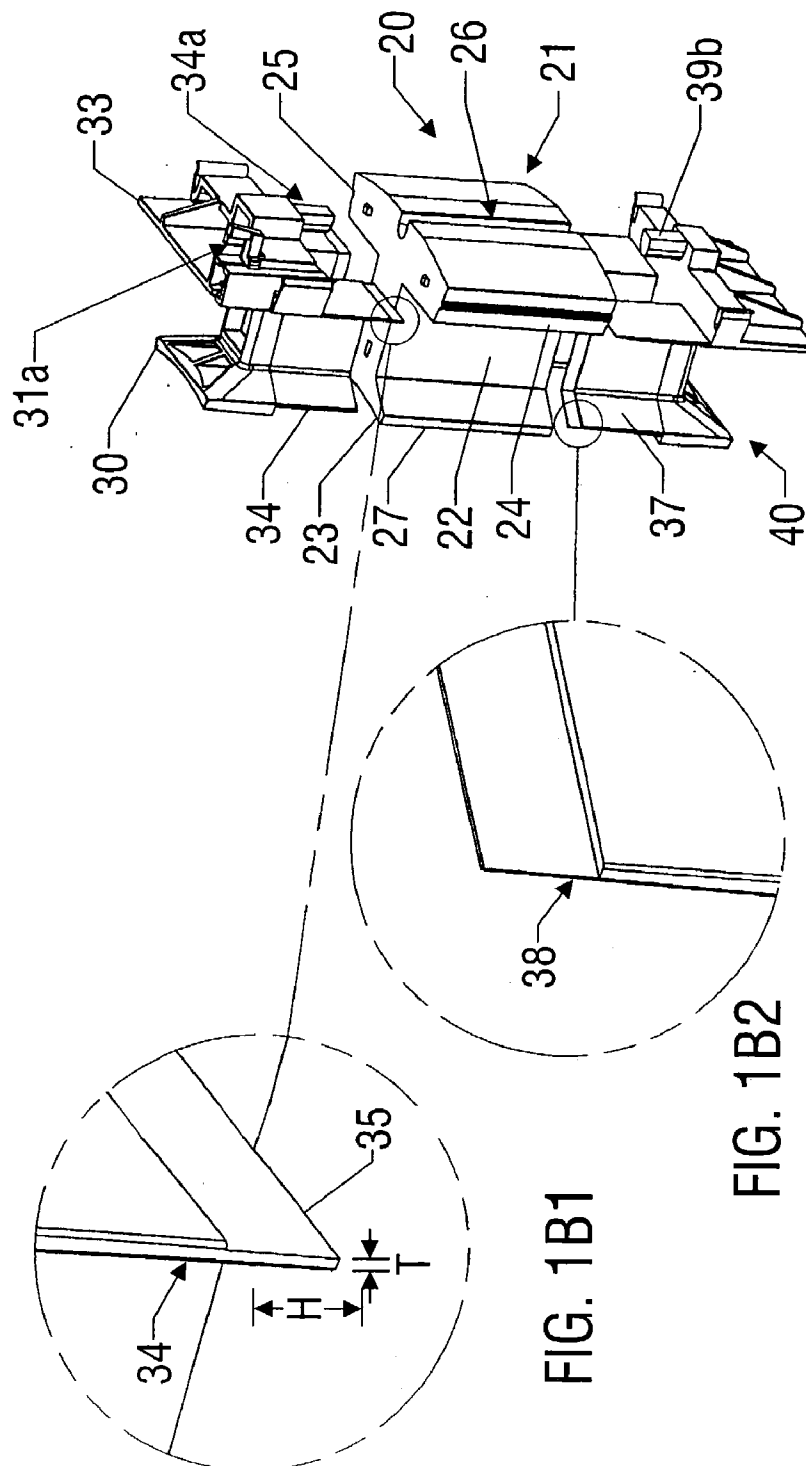


FIG. 1B

FIG. 1B1

FIG. 1B2

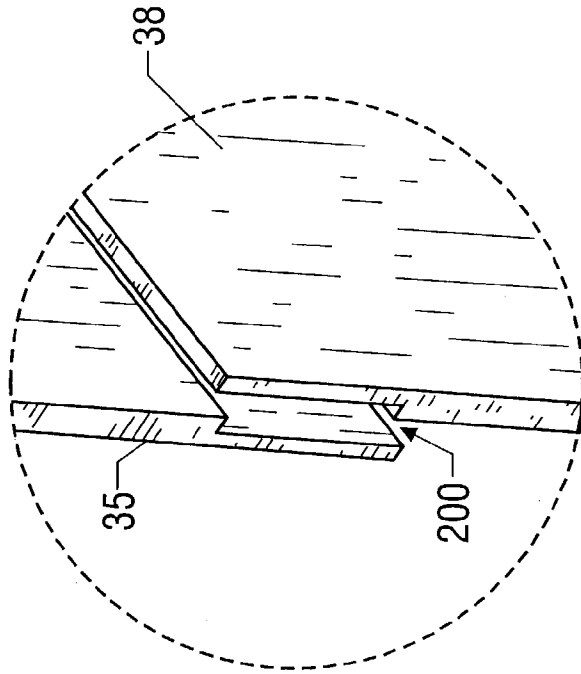


FIG. 1D

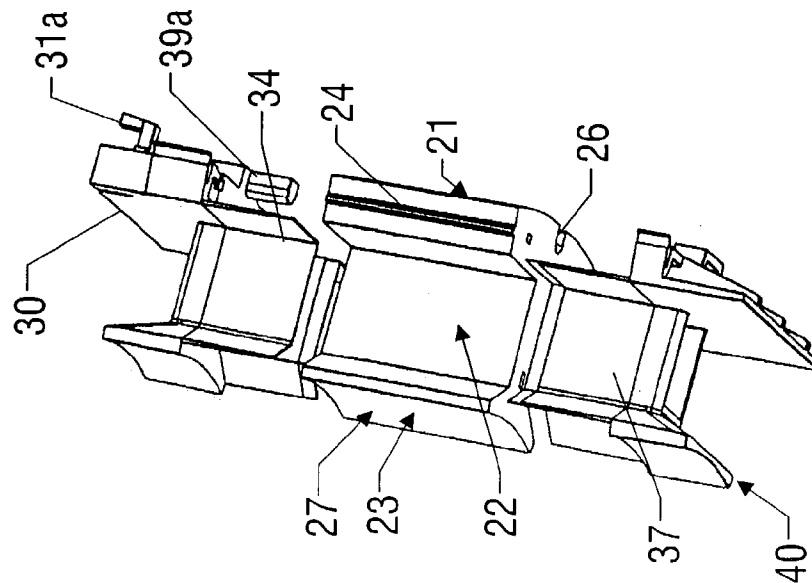


FIG. 1C

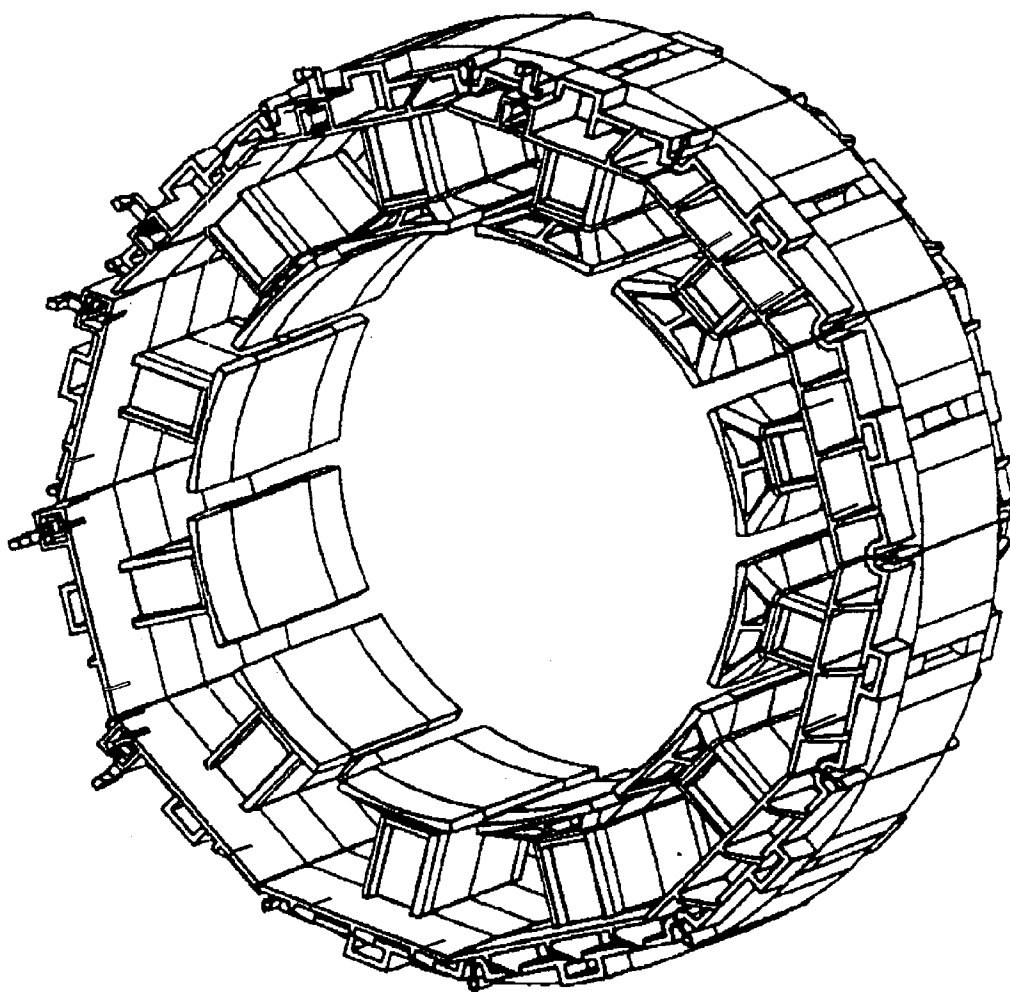


FIG. 2

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