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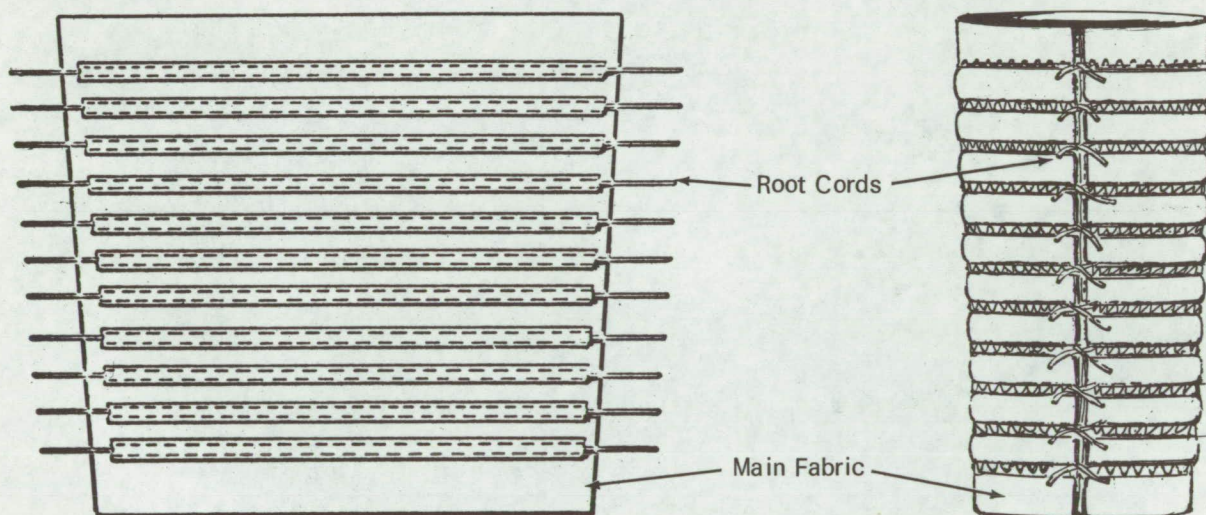
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Pressurized Suits Can be Fabricated with Adjustable Dimensions

The problem:

Pressurized suits utilized in commercial aviation and experimental medical applications are difficult and expensive to construct. Furthermore, the sizing of each suit during the manufacturing process re-

quires different sized molds and completely different sets of root cords to accommodate the various sizes of the wearers. The root cords are restrained in cloth tunnels formed by stitching long, narrow pieces of fabric onto the main fabric section. The cords are marked



quires different sized molds and completely different sets of root cords to accommodate the various sizes of the wearers.

The solution:

Place the root cords within tube-like channels to form convolutes. The length of the cords can then be varied to adjust to the wearer's dimensions.

How it's done:

A root-restrained fabric convolute is formed by starting with a sheet of fabric which has an array of straight root cords laid across it. Each cord is

positioned on the fabric according to the desired spacing of roots in the final convolute section (see fig.). The root cords are restrained in cloth tunnels formed by stitching long, narrow pieces of fabric onto the main fabric section. The cords are marked to identify the desired final length of cord necessary to provide a root of a suitable diameter for the particular convolute section being fabricated. The fabric is then closed upon itself to form a cylinder. The root cords are then drawn up until the markers show, and knots are formed in the cords, thus completing the convolute roots and a convoluted fabric section. Once the entire pressurized suit is fabricated, differences in the anatomy of individuals can be compensated for by shaping the convolute section through readjustments of various cords.

(continued overleaf)

Note:

Requests for further information may be directed to:

Technology Utilization Officer
Manned Spacecraft Center, Code JM7
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Reference: TSP71-10092

Patent status:

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