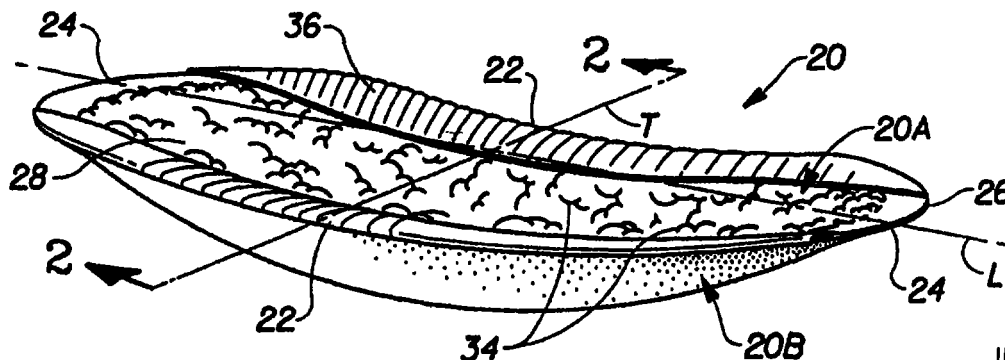


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(54) Title: **HIGHLY EFFICIENT ABSORBENT ARTICLE FOR USE WITH MENSTRUAL PANT**

162162

(57) Abstract

Highly efficient absorbent articles for wearing by a human female such as sanitary napkins, panty liners, and adult incontinence pads ("absorbent pads") for use with a specially designed supporting garment, such as a menstrual pant (or panty) are disclosed. The supporting garment preferably fits so closely it resembles a comfortable "second skin". In use, the absorbent articles preferably maintain contact with and cover at least a portion of the inside surfaces of the wearer's labia, the exterior surfaces of the wearer's labia, and the supporting garment. The absorbent articles are highly flexible, having flexure resistance of less than or equal to about 100 grams so that they do not interfere with the "second skin fit" of the supporting garment. The absorbent articles may be flat or cup-shaped. In one embodiment, the absorbent article has a surface area measured in a flat condition of less than or equal to about 12.5 in² (about 80 cm²) and a ratio of total capacity to surface area of greater than or equal to about 2g/in² (about 0.30 g/cm²). The absorbent articles may be provided with a body-contacting surface having a plurality of elements that extend outward in the Z-direction and adjust to the body contours of individual women. These elements may also intercept menses flowing along the wearer's body, and to allow menses to be redirected into the absorbent article. The absorbent core may comprise an absorbent HIPE foam. The absorbent foam may be slit, in the form of strands, particles, or a plurality of upright, spaced apart columns to provide the desired flexibility. The absorbent articles may further be provided with a specially designed mechanical fastening material for engaging the specially designed supporting garment.

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