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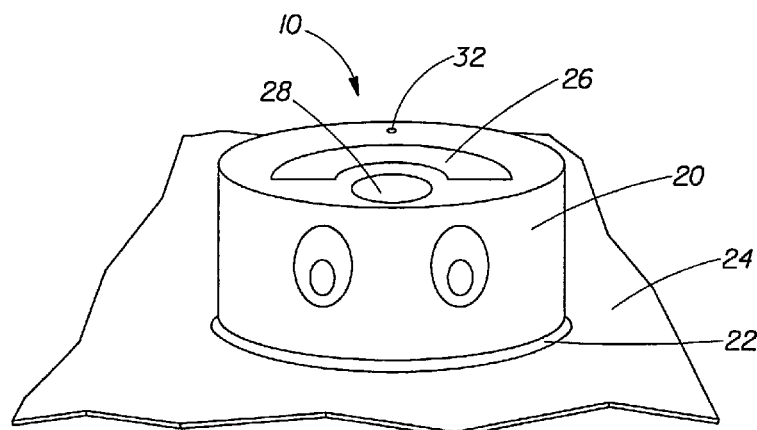
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(54) Title: AUTONOMOUS MOBILE SURFACE TREATING APPARATUS



(57) Abstract: One aspect of the invention is directed to an autonomous mobile surface treating apparatus having a chassis, a drive mechanism mounted to the said chassis by a suspension, and a substantially rigid shell movably mounted to the chassis. The suspension includes a resilient member interposed between the drive mechanism and the chassis so that when the shell is pushed toward the supporting surface with a predetermined force the resilient member compresses to permit the drive mechanism to move and the shell and/or the chassis to contact the supporting surface. A second aspect of the invention is directed to the movable support of shell relative to the chassis. The shell is supported by a plurality of elongated elastic supports received within plurality of elongated openings in the chassis. Preferably, a passive portion of a collision detection sensor is attached to a central portion of the shell. A third aspect of the invention is directed to a non-skid lower edge member movably attached to the shell to adjust a clearance between the non-skid lower edge member and the supporting surface. A fourth aspect of the invention is directed to a vacant volume that defines a module receiving area adapted to removeably receive a surface treatment module, preferably a plurality of types of surface treatment modules including a pressure adjusting module. A fifth aspect of the invention is directed to a surface treatment module adapted to be removably received in a surface treatment module receiving area of an autonomous mobile surface treating apparatus.

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