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Moody

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- [54] **HIGH-TORQUE QUIET GEAR**
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- [*] Notice: Under 35 U.S.C. 154(b), the term of this patent shall be extended for 656 days.
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- [52] U.S. Cl. **74/443; 74/574; 74/594.1; 464/89**
- [58] Field of Search **74/443, 574, 594.1; 464/75, 82, 87, 89**

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[57] ABSTRACT

A high-torque quiet gear construction consists of an inner hub having a plurality of circumferentially spaced arms extending radially outwardly therefrom, and an outer ring member having a plurality of circumferentially spaced teeth extending radially inwardly therefrom. The ring member further includes a plurality of gear formations on an outer surface thereof for intermeshing with other gears. The teeth of the ring member are received in spaced relation in corresponding spaces formed between adjacent arms of the hub. An elastomeric member is received in the space formed between the hub and the ring member to form a resilient correction between the arms of the hub and the teeth of the ring member. The side surfaces of the arms and the teeth extend generally parallel to each other and at least partially overlap in a longitudinal direction. The purpose of this configuration is to place the elastomeric member in compression when torque is applied to the hub. Since elastomeric material is relatively incompressible, the result is low shear loads on the adhesive bonds which hold the elastomeric member to both the hub and outer ring member.

- [56] **References Cited**
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3 Claims, 1 Drawing Sheet

