Abstract. Let $g \mapsto g^*$ denote an involution on a group $G$. For any (commutative, associative) ring $R$ (with 1), $*$ extends linearly to an involution of the group ring $RG$. An element $\alpha \in RG$ is symmetric if $\alpha^* = \alpha$ and skew-symmetric if $\alpha^* = -\alpha$. The skew-symmetric elements are closed under the Lie bracket, $[\alpha, \beta] = \alpha\beta - \beta\alpha$. In this paper, we investigate when this set is also closed under the ring product in $RG$. The symmetric elements are closed under the Jordan product, $\alpha \circ \beta = \alpha\beta + \beta\alpha$. Here, we determine when this product is trivial. These two problems are analogues of problems about the skew-symmetric and symmetric elements in group rings that have received a lot of attention.