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(54) Title: METHODS OF FORMING POLYCRYSTALLINE COMPACTS, CUTTING ELEMENTS AND EARTH-BORING TOOLS

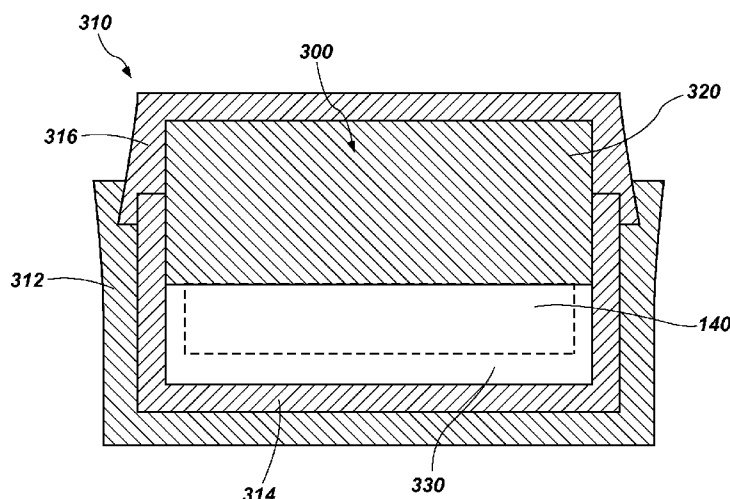


FIG. 3

(57) Abstract: Methods of forming a polycrystalline compact using at least one metal salt as a sintering aid. Such methods may include forming a mixture of the at least one metal salt and a plurality of grains of hard material and sintering the mixture to form a hard polycrystalline material. During sintering, the metal salt may melt or react with another compound to form a liquid that acts as a lubricant to promote rearrangement and packing of the grains of hard material. The metal salt may, thus, enable formation of hard polycrystalline material having increased density, abrasion resistance, or strength. The metal salt may also act as a getter to remove impurities (e.g., catalyst material) during sintering. The methods may also be employed to form cutting elements and earth-boring tools.

