CLAIMS:

[Claim 1] An outer blade cutting wheel comprising a base in the form of an annular thin disc of cemented carbide having a Young's modulus of 450 to 700 GPa, having an outer diameter of 80 to 200 mm defining an outer periphery, an inner diameter of 30 to 80 mm, and a thickness of 0.1 to 1.0 mm, and a blade section on the outer periphery of the base,

said blade section comprising

diamond and/or CBN abrasive grains pre-coated with a magnetic material,

a metal or alloy bond formed by electroplating or electroless plating for bonding abrasive grains together and to the base, and

a metal or alloy binder having a melting point of up to 350°C infiltrated between abrasive grains and between abrasive grains and the base~~.~~,

wherein the abrasive grains, the magnetic material covering abrasive grains, the metal or alloy bond, and the metal or alloy binder infiltrated into voids are dispersed in the blade section.

[Claim 2] The cutting wheel of claim 1 wherein the binder metal is Sn and/or Pb, and the binder alloy is at least one alloy selected from the group consisting of Sn-Ag-Cu, Sn-Ag, Sn-Cu, Sn-Zn, and Sn-Pb alloys.

[Claim 3] The cutting wheel of claim 1 or 2 wherein the metal or alloy binder has a Poisson's ratio between 0.3 and 0.48.

[Claim 4] The cutting wheel of any one of claims 1 to 3 wherein said base has a saturation magnetization of at least 40 kA/m (0.05 T).