Magnetic Eddy Currents (Foucault currents)

The reason for the decreased dropping speed is not a magnetic interaction as copper is not magnetic. Instead the dropping magnetic with north and south poles cause an changing magnetic field. This changing field causes a electrical current in the conductive metal that opposed the dropping motion of the magnet. This in turn then slows down the overall speed of the magnet dropping. These opposing forces are called eddy currents or Foucault currents. For more information search eddy currents, Foucault currents, Lenz Law, magnetics and electricity.