ABSTRACT

For the purpose of letting through a magnetic flux which reverses the magnetization of the magnetic layer of the magnetic disk, a write element requires a predetermined sectional area. However, if a cross section of a magnetic pole is structured as the one having a large aspect ratio, the pole becomes less capable of letting the magnetic flux through effectively. This phenomenon brings about a lower limit on the track width of the magnetic poles and the track density cannot be raised. In the present invention, by making the width of the write element larger than the track pitch and securing a write magnetic field strong enough to reverse the magnetization of the magnetic layer, and further by writing while shifting a write head comprising the write element, a magnetic disk drive, of which the track width is narrower than the write element width, and the storage capacity is large, is realized.