ABSTRACT

A magneto-optical recording medium 11 is irradiated with a reproducing light beam 13 so that only a minute magnetic domain 313b, which is subjected to recording in a recording layer 18 and which is smaller than 1/2 of a spot radius of the recording light beam 13, is selected by a gate layer 17 and transferred to a magnetic domain-magnifying and reproducing layer 3. The magnetic domain transferred to the magnetic domain-magnifying and reproducing layer 3 is magnified by using a magnifying and reproducing magnetic field 411 of an alternating magnetic field. A large reproduction signal is obtained from the magnified magnetic domain 419, and the minute magnetic domain can be subjected to reproduction at a high resolving power and at a high S/N ratio. The magnified magnetic domain 419 is reduced by using a reducing reproducing magnetic field 415 of the alternating magnetic field. The gate layer 17 has a thickness which is not less than a thickness of a magnetic wall of the magnetic domain. A non-magnetic layer may be used in place of the gate layer 17.