20000472-1
IPOS 1

PCT WORLD INTELLECTUAL PROPERTY ORGANIZATION
International Bureau

INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification 6 : G11B 7/12

A2

(11) International Publication Number: WO 99/09552

(43) International Publication Date: 25 February 1999 (25.02.99)

(21) International Application Number: PCT/JP98/03573

(22) International Filing Date: 11 August 1998 (11.08.98)

(30) Priority Data:

9/236475	19 August 1997 (19.08.97)	JP
9/243481	26 August 1997 (26.08.97)	JP
9/273368	22 September 1997 (22.09.97)	JP

(81) Designated States: CN, KR, SG, US, European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE).

Published
Without international search report and to be republished upon receipt of that report.

(71) Applicant *(for all designated States except US)*: KABUSHIKI KAISHA KENWOOD [JP/JP]; 14–6, Dougenzaka 1–chome, Shibuya–ku, Tokyo 150–0043 (JP).

(72) Inventors; and
(75) Inventors/Applicants *(for US only)*: MIYAZAWA, Hiroshi [JP/JP]; 20–7, Enoki–cyo, Tokorozawa–shi, Saitama 359–1104 (JP). TACHIZAWA, Hidemi [JP/JP]; 2–36–22, Shinmachi, Fuchu–shi, Tokyo 183–5200 (JP).

(74) Agents: OKABE, Masao et al.; No. 602 Fuji Building, 2–3, Marunouchi 3–chome, Chiyoda–ku, Tokyo 100–0005 (JP).

(54) Title: OPTICAL PICKUP APPARATUS, HOLDER AND METHOD OF PRODUCING OPTICAL PICKUP APPARATUS

(57) Abstract

An optical pickup apparatus (10) for reading data from a plurality of tracks of an optical disc (34) at the same time by focussing spots (M,...) of each light beam on a plurality of tracks, passing the reflected light beams of spots (M,...) sequentially through an objective lens (30), a collimator lens (28), and a focus adjusting lens (50) in this order, and detecting the reflected light beams with photodiodes (52M,...) disposed along a photodiode light reception plane (68). In order to make each reflected light become incident upon each photodiode (52M,...), a case (72) and a bracket (78) are separated from a chassis (70), and support the focus adjusting lens (50) and the photodiodes (52M,...) respectively. The case (72) and bracket (78) are made so that they can be fixed to the chassis (70) at optional positions in a predetermined area along a direction of the optical axis (66). While the case (72) and bracket (78) are moved along the optical axis (66) direction, positions along the optical axis (66) where the reflected light beams are allowed to enter the photodiodes (52M,...) are searched and the case (72) and bracket (78) are fixed to the chassis (70) at the searched positions.

